Drinking Water/Groundwater Sample Results, Level 4 Laboratory Report, Electronic Data<br>Deliverable, Data Validation Report, Sample Location Report, SDG 1802055<br>NAS<br>Chase Field TX<br>December 2020

August 21, 2018

## Vista Work Order No. 1802055

Ms. Nia Nikmanesh
KMEA
2423 Hoover Avenue
National City, CA 91950
Dear Ms. Nikmanesh,
Enclosed are the results for the sample set received at Vista Analytical Laboratory on July 27, 2018 under your Project Name 'Chase Field / 5026167008'.

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<br>Laboratory Director

## Vista Work Order No. 1802055

Case Narrative

## Sample Condition on Receipt:

Seventeen 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 field blank samples were extracted and held. The field blanks associated with samples with positive detections were analyzed.

## Analytical Notes:

## PFAS Isotope Dilution Method

Sample "Shooting Range 1-DW-072518" contained particulate and were centrifuged prior to extraction.

The samples were extracted and analyzed for a selected list of PFAS using the PFAS Isotope Dilution Method (Modified EPA Method 537). The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

## Holding Times

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

## Quality Control

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

As requested, an MS/MSD was performed on sample "Lupes House-DW-072518". The MS/MSD recoveries and RPDs were within the acceptance criteria.

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

QC Anomalies

| LabNumber | SampleName | Analysis | Analyte | Flag |
| :--- | :--- | :--- | :--- | :--- |
| $1802055-03$ | Shop Pasture-DW-072518 | PFAS Isotope Dilution Method | 13C3-PFBS | H |
| $1802055-03$ | Shop Pasture-DW-072518 | PFAS Isotope Dilution Method | 13C8-PFOSA | 151 |
| $1802055-07$ | Lupes House-DW-072518 | PFAS Isotope Dilution Method | 13C8-PFOSA | 46.4 |
| $1802055-09$ | Charlies-DW-072518 | PFAS Isotope Dilution Method | 13C8-PFOSA | 46.9 |
| $1802055-13$ | Charlies Pasture-DW-072518 | PFAS Isotope Dilution Method | 13C8-PFOSA | H |
| $1802055-14$ | Charlies Pasture-FB-072518 | PFAS Isotope Dilution Method | 13C8-PFOSA | H |
| $1802055-15$ | Shooting Range 1-DW-072518 | PFAS Isotope Dilution Method | 13C8-PFOSA | H |
| $1802055-16$ | Shooting Range 1-FB-072518 | PFAS Isotope Dilution Method | 13C8-PFOSA | 45.2 |
| $1802055-17$ | DUP-1 | PFAS Isotope Dilution Method | 13C8-PFOSA | 41.9 |
|  |  | H | 45.8 |  |

H = Recovery was outside laboratory acceptance criteria.

## TABLE OF CONTENTS

Case Narrative ..... 1
Table of Contents ..... 4
Sample Inventory ..... 5
Analytical Results. ..... 6
Qualifiers ..... 23
Certifications ..... 24
Sample Receipt ..... 25
Extraction Information ..... 28
Sample Data - PFAS Isotope Dilution Method. ..... 33
IIS Areas, IBs and CCVs. ..... 160
ICAL with ICV and IB ..... 214

## Sample Inventory Report

| Vista | Client |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Sample ID | Sample ID | Sampled | Received | Components/Containers |
| $1802055-01$ | Clarks-DW-072518 | 25-Jul-18 09:28 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-02$ | Clarks-FB-072518 | 25-Jul-18 09:30 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-03$ | Shop Pasture-DW-072518 | 25-Jul-18 10:45 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-04$ | Shop Pasture-FB-072518 | 25-Jul-18 10:47 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-05$ | Welder HQ-DW-072518 | 25-Jul-18 11:18 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-06$ | Welder HQ-FB-072518 | 25-Jul-18 11:20 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-07$ | Lupes House-DW-072518 | MS/MSD25-Jul-18 11:41 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
|  |  |  |  | HDPE Bottle, 250 mL |
|  |  |  |  | HDPE Bottle, 250 mL |
| $1802055-08$ | Lupes House-FB-072518 | 25-Jul-18 11:43 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-09$ | Charlies-DW-072518 | 25-Jul-18 12:07 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-10$ | Charlies-FB-072518 | 25-Jul-18 12:09 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-11$ | Hortzendorf-DW-072518 | 25-Jul-18 13:29 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-12$ | Hortzendorf-FB-072518 | 25-Jul-18 13:31 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-13$ | Charlies Pasture-DW-072518 | 25-Jul-18 13:46 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-14$ | Charlies Pasture-FB-072518 | 25-Jul-18 13:48 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-15$ | Shooting Range 1-DW-072518 | 25-Jul-18 14:02 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-16$ | Shooting Range 1-FB-072518 | 25-Jul-18 14:04 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |
| $1802055-17$ | DUP-1 | 25-Jul-18 00:00 | 27-Jul-18 10:04 | HDPE Bottle, 250 mL |

## ANALYTICAL RESULTS

Analytical Laboratory

| Sample ID: Method Blank |  |  |  |  |  |  |  |  | PFAS Isotope Dilution Method |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data <br> Name: <br> Project: | KMEA <br> Chase Field / 5026167008 | Matrix: |  |  |  | tory Data mple: | B8G0238- |  | Column: | BEH C18 |  |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| PFBA | 375-22-4 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFPeA | 2706-90-3 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFBS | 375-73-5 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFHxA | 307-24-4 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFHpA | 375-85-9 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFHxS | 355-46-4 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFOA | 335-67-1 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFNA | 375-95-1 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFOSA | 754-91-6 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFOS | 1763-23-1 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFDA | 335-76-2 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFDS | 335-77-3 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFDoA | 307-55-1 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00137 | 0.00200 | 0.00400 |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 89.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C3-PFPeA | IS | 113 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C3-PFBS | IS | 123 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C2-PFHxA | IS | 87.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C4-PFHpA | IS | 85.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 18O2-PFHxS | IS | 89.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C2-PFOA | IS | 86.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C5-PFNA | IS | 81.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C8-PFOSA | IS | 50.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C8-PFOS | IS | 80.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C2-PFDA | IS | 67.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| d3-MeFOSAA | IS | 64.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| d5-EtFOSAA | IS | 64.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C2-PFUnA | IS | 69.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C2-PFDoA | IS | 66.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| 13C2-PFTeDA | IS | 66.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.250 L | 18-Aug-18 18:38 | 1 |
| DL - Detection Limit | LOD - Limit of Detection <br> LOQ - Limit of quantitation | Results re | ed to the DL |  |  | When re linear and analytes. | orted, PFHxS, <br> branched isom | FOA, PFOS, M rs. Only the lin | FOSAA and Et ear isomer is rep | OSAA include both orted for all other |  |



Work Order 1802055

Analytical Laboratory

| Sample ID: Clarks-DW-072518 |  |  |  |  |  |  |  |  | PFAS Isotope Dilution Method |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data <br> Name: <br> Project: | KMEA <br> Chase Field / 5026167008 | Matrix <br> Date | $\begin{array}{ll}  & \mathrm{Wa} \\ \text { cted: } & \\ 25 \end{array}$ | 09:28 |  | tory Data mple: eceived: | $\begin{aligned} & 1802055-\mathrm{C} \\ & 27-\mathrm{Jul}-18 \end{aligned}$ |  | Column: | BEH C18 |  |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| PFBA | 375-22-4 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFPeA | 2706-90-3 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFBS | 375-73-5 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFHxA | 307-24-4 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFHpA | 375-85-9 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFHxS | 355-46-4 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFOA | 335-67-1 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFNA | 375-95-1 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFOSA | 754-91-6 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFOS | 1763-23-1 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFDA | 335-76-2 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFDS | 335-77-3 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFDoA | 307-55-1 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00140 | 0.00204 | 0.00408 |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 91.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C3-PFPeA | IS | 123 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C3-PFBS | IS | 135 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C2-PFHxA | IS | 94.4 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C4-PFHpA | IS | 90.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 18O2-PFHxS | IS | 91.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C2-PFOA | IS | 91.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C5-PFNA | IS | 90.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C8-PFOSA | IS | 51.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C8-PFOS | IS | 92.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C2-PFDA | IS | 76.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| d3-MeFOSAA | IS | 70.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| d5-EtFOSAA | IS | 74.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C2-PFUnA | IS | 75.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C2-PFDoA | IS | 76.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| 13C2-PFTeDA | IS | 73.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.245 L | 18-Aug-18 18:49 | 1 |
| DL - Detection Limit | LOD - Limit of Detection LOQ - Limit of quantitation | Results | ed to the DL |  |  | When re linear an analytes | orted, PFHxS, branched ison | FOA, PFOS, M <br> rs. Only the li | FOSAA and Et ear isomer is rep | OSAA include both orted for all other |  |


| Sample ID: Shop Pasture-DW-072518 |  |  |  |  |  |  |  |  | PFAS Isotope Dilution Method |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data  <br> Name: KMEA <br> Project: Chase Field / 5026167008 |  | Matrix: Water <br> Date Collected: 25-Jul-18 10 |  |  | Laboratory Data <br> Lab Sample: <br> Date Received: |  | $\begin{aligned} & \text { 1802055-03 } \\ & \text { 27-Jul-18 10:04 } \end{aligned}$ |  | Column: <br> Samp Size | BEH C18 |  |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted |  | Analyzed | Dilution |
| PFBA | 375-22-4 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFPeA | 2706-90-3 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFBS | 375-73-5 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFHxA | 307-24-4 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFHpA | 375-85-9 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFHxS | 355-46-4 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFOA | 335-67-1 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFNA | 375-95-1 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFOSA | 754-91-6 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFOS | 1763-23-1 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFDA | 335-76-2 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFDS | 335-77-3 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFDoA | 307-55-1 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00142 | 0.00207 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 93.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C3-PFPeA | IS | 124 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C3-PFBS | IS | 151 |  | 50-150 |  | H | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C2-PFHxA | IS | 91.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C4-PFHpA | IS | 88.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 18O2-PFHxS | IS | 92.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C2-PFOA | IS | 92.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C5-PFNA | IS | 83.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C8-PFOSA | IS | 46.4 |  | 50-150 |  | H | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C8-PFOS | IS | 94.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C2-PFDA | IS | 70.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| d3-MeFOSAA | IS | 72.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| d5-EtFOSAA | IS | 78.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C2-PFUnA | IS | 73.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C2-PFDoA | IS | 77.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| 13C2-PFTeDA | IS | 84.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 19:10 | 1 |
| DL - Detection Limit | LOD - Limit of Detection <br> LOQ - Limit of quantitation | Results reported to the DL. |  |  | When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes. |  |  |  |  |  |  |


| Sample ID: Welder HQ-DW-072518 |  |  |  |  |  |  |  |  | PFAS Isotope Dilution Method |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data  <br> Name: KMEA <br> Project: Chase Field / 5026167008 |  | Matrix: Water <br> Date Collected: 25-Jul-18 11:18 |  |  | Laboratory Data <br> Lab Sample: <br> Date Received: |  | $\begin{aligned} & \text { 1802055-05 } \\ & \text { 27-Jul-18 10:04 } \end{aligned}$ |  | Column: | : BEH C18 | Dilution |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed |  |
| PFBA | 375-22-4 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFPeA | 2706-90-3 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFBS | 375-73-5 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFHxA | 307-24-4 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFHpA | 375-85-9 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFHxS | 355-46-4 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFOA | 335-67-1 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFNA | 375-95-1 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFOSA | 754-91-6 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFOS | 1763-23-1 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFDA | 335-76-2 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFDS | 335-77-3 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFDoA | 307-55-1 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00143 | 0.00208 | 0.00416 |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 93.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C3-PFPeA | IS | 123 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C3-PFBS | IS | 150 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C2-PFHxA | IS | 92.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C4-PFHpA | IS | 89.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 18O2-PFHxS | IS | 92.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C2-PFOA | IS | 84.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C5-PFNA | IS | 84.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C8-PFOSA | IS | 50.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C8-PFOS | IS | 95.4 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C2-PFDA | IS | 76.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| d3-MeFOSAA | IS | 70.4 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| d5-EtFOSAA | IS | 80.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C2-PFUnA | IS | 75.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C2-PFDoA | IS | 79.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| 13C2-PFTeDA | IS | 76.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.240 L | 18-Aug-18 19:31 | 1 |
| DL - Detection Limit | LOD - Limit of Detection <br> LOQ - Limit of quantitation | Results reported to the DL. |  |  | When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes. |  |  |  |  |  |  |

Analytical Laboratory

| Sample ID: Lupes House-DW-072518 |  |  |  |  |  |  |  |  | PFAS Isotope Dilution Method |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data <br> Name: <br> Project: | KMEA <br> Chase Field / 5026167008 | Matrix <br> Date C | $\begin{array}{ll}  & \mathrm{Wa} \\ \text { cted: } & 25 \end{array}$ | $8 \text { 11:41 }$ |  | tory Data mple: ceived: | $\begin{aligned} & 1802055-0 \\ & 27-\text { Jul-18 } \end{aligned}$ | $10: 04$ | Column: | BEH C18 |  |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| PFBA | 375-22-4 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFPeA | 2706-90-3 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFBS | 375-73-5 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFHxA | 307-24-4 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFHpA | 375-85-9 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFHxS | 355-46-4 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFOA | 335-67-1 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFNA | 375-95-1 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFOSA | 754-91-6 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFOS | 1763-23-1 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFDA | 335-76-2 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFDS | 335-77-3 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFDoA | 307-55-1 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00143 | 0.00209 | 0.00418 |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 95.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C3-PFPeA | IS | 122 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C3-PFBS | IS | 136 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C2-PFHxA | IS | 93.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C4-PFHpA | IS | 85.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 18O2-PFHxS | IS | 92.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C2-PFOA | IS | 91.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C5-PFNA | IS | 88.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C8-PFOSA | IS | 46.9 |  | 50-150 |  | H | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C8-PFOS | IS | 96.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C2-PFDA | IS | 75.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| d3-MeFOSAA | IS | 63.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| d5-EtFOSAA | IS | 75.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C2-PFUnA | IS | 75.4 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C2-PFDoA | IS | 75.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| 13C2-PFTeDA | IS | 69.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.239 L | 18-Aug-18 19:53 | 1 |
| DL - Detection Limit | LOD - Limit of Detection <br> LOQ - Limit of quantitation | Results | ed to the DL |  |  | When r linear an analytes | orted, PFHxS, branched ison | FOA, PFOS, M <br> rs. Only the li | FOSAA and Et ear isomer is rep | OSAA include both orted for all other |  |


| Sample ID: Lupes House-DW-072518 |  |  |  |  |  |  |  |  |  |  |  |  |  | PFAS I | sotop | e Dilution Me | thod |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name: <br> Project: <br> Matrix: | KMEA <br> Chase Field / 5026167008 <br> Aqueous |  |  | MS <br> Spike Amt | $\begin{gathered} \text { MS } \\ \text { \% Rec } \end{gathered}$ | Lab Sample: <br> QC Batch: <br> Samp Size: | $\begin{aligned} & \text { B8G0238-MS1/B8G0238-MSD1 } \\ & \text { B8G0238 } \\ & 0.249 / 0.246 \text { L } \end{aligned}$ |  |  |  | $\begin{aligned} & \text { MSD } \\ & \text { Ouals } \\ & \hline \end{aligned}$ | \%Rec RPD <br> Limits Limits |  | Source Lab Sample <br> Date Extracted: <br> Column: | MS <br> Dil | $\begin{aligned} & \text { 1802055-07 } \\ & \text { 06-Aug-18 } \\ & \text { BEH C18 } \end{aligned}$ | $\begin{gathered} \hline \text { MSD } \\ \text { Dil } \\ \hline \end{gathered}$ |
| Analyte | CAS Number | Sample (ug/L) | $\begin{gathered} \text { MS } \\ (\mathrm{ug} / \mathrm{L}) \\ \hline \end{gathered}$ |  |  |  | $\begin{gathered} \hline \text { MSD } \\ (\mathrm{ug} / \mathrm{L}) \\ \hline \end{gathered}$ | $\overline{\text { MSD }}$ <br> Spike Amt | $\begin{gathered} \hline \text { MSD } \\ \text { \% Rec } \\ \hline \end{gathered}$ | RPD |  |  |  | MS <br> Analyzed |  | MSD <br> Analyzed |  |
| PFBA | 375-22-4 | ND | 0.0368 | 0.0402 | 90.7 |  | 0.0352 | 0.0407 | 85.7 | 5.67 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFPeA | 2706-90-3 | ND | 0.0395 | 0.0402 | 98.3 |  | 0.0377 | 0.0407 | 92.5 | 6.08 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFBS | 375-73-5 | ND | 0.0368 | 0.0402 | 91.6 |  | 0.0341 | 0.0407 | 83.7 | 9.01 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFHxA | 307-24-4 | ND | 0.0393 | 0.0402 | 97.7 |  | 0.0365 | 0.0407 | 89.6 | 8.65 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFHpA | 375-85-9 | ND | 0.0383 | 0.0402 | 95.4 |  | 0.0377 | 0.0407 | 92.7 | 2.87 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFHxS | 355-46-4 | ND | 0.0363 | 0.0402 | 89.6 |  | 0.0378 | 0.0407 | 92.1 | 2.75 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFOA | 335-67-1 | ND | 0.0399 | 0.0402 | 98.6 |  | 0.0356 | 0.0407 | 86.7 | 12.8 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFNA | 375-95-1 | ND | 0.0406 | 0.0402 | 101 |  | 0.0346 | 0.0407 | 84.6 | 17.7 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFOSA | 754-91-6 | ND | 0.0388 | 0.0402 | 96.5 |  | 0.0373 | 0.0407 | 91.7 | 5.10 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFOS | 1763-23-1 | ND | 0.0384 | 0.0402 | 95.3 |  | 0.0369 | 0.0407 | 90.4 | 5.28 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFDA | 335-76-2 | ND | 0.0392 | 0.0402 | 97.2 |  | 0.0388 | 0.0407 | 95.0 | 2.29 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.0370 | 0.0402 | 92.0 |  | 0.0380 | 0.0407 | 93.3 | 1.40 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.0386 | 0.0402 | 96.1 |  | 0.0380 | 0.0407 | 93.5 | 2.74 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFUnA | 2058-94-8 | ND | 0.0376 | 0.0402 | 93.3 |  | 0.0358 | 0.0407 | 87.9 | 5.96 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFDS | 335-77-3 | ND | 0.0377 | 0.0402 | 93.9 |  | 0.0339 | 0.0407 | 83.4 | 11.8 |  | 60-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFDoA | 307-55-1 | ND | 0.0389 | 0.0402 | 96.8 |  | 0.0349 | 0.0407 | 85.8 | 12.0 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.0395 | 0.0402 | 98.3 |  | 0.0364 | 0.0407 | 89.5 | 9.37 |  | 60-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| PFTeDA | 376-06-7 | ND | 0.0390 | 0.0402 | 96.8 |  | 0.0363 | 0.0407 | 89.0 | 8.40 |  | 70-130 | 30 | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| Labeled Sta | andards |  | Type |  | $\begin{gathered} \text { MS } \\ \text { \% Rec } \end{gathered}$ | $\begin{gathered} \hline \text { MS } \\ \text { Quals } \end{gathered}$ |  |  | $\begin{gathered} \text { MSD } \\ \text { \% Rec } \\ \hline \end{gathered}$ |  | MSD <br> Quals | Limits |  | MS <br> Analyzed | $\begin{gathered} \hline \text { MS } \\ \text { Dil } \end{gathered}$ | $\begin{gathered} \text { MSD } \\ \text { Analyzed } \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { MSD } \\ \text { Dil } \end{gathered}$ |
| 13C3-PFBA |  |  | IS |  | 88.3 |  |  |  | 96.9 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 13C3-PFPe |  |  | IS |  | 117 |  |  |  | 121 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 13C3-PFBS |  |  | IS |  | 133 |  |  |  | 139 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 13C2-PFHx |  |  | IS |  | 87.2 |  |  |  | 93.2 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 13C4-PFHp |  |  | IS |  | 86.0 |  |  |  | 86.8 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 18O2-PFHx |  |  | IS |  | 93.7 |  |  |  | 87.7 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 13C2-PFOA |  |  | IS |  | 83.4 |  |  |  | 92.3 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 13C5-PFNA |  |  | IS |  | 80.8 |  |  |  | 87.0 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 13C8-PFOS |  |  | IS |  | 55.3 |  |  |  | 58.2 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 13C8-PFOS |  |  | IS |  | 86.1 |  |  |  | 99.3 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 13C2-PFDA |  |  | IS |  | 77.2 |  |  |  | 76.6 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| d3-MeFOSA |  |  | IS |  | 71.2 |  |  |  | 72.6 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| d5-EtFOSA |  |  | IS |  | 71.7 |  |  |  | 75.5 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 13C2-PFUn |  |  | IS |  | 73.9 |  |  |  | 77.4 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |
| 13C2-PFDo |  |  | IS |  | 74.9 |  |  |  | 81.8 |  |  | 50-150 |  | 18-Aug-18 18:16 | 1 | 18-Aug-18 18:27 | 1 |

Work Order 1802055


| Sample ID: Charlies-DW-072518 |  |  |  |  | PFAS Isotope Dilution Method |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data  <br> Name: KMEA <br> Project: Chase Field / 5026167008 |  | Matrix: Water <br> Date Collected: 25-Jul-18 12:07 |  |  | Laboratory Data  <br> Lab Sample: 1802055-09 <br> Date Received: 27-Jul-18 10:04 |  |  |  | Column: <br> Samp Size | BEH C18 |  |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted |  | Analyzed | Dilution |
| PFBA | 375-22-4 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFPeA | 2706-90-3 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFBS | 375-73-5 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFHxA | 307-24-4 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFHpA | 375-85-9 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFHxS | 355-46-4 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFOA | 335-67-1 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFNA | 375-95-1 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFOSA | 754-91-6 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFOS | 1763-23-1 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFDA | 335-76-2 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFDS | 335-77-3 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFDoA | 307-55-1 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00141 | 0.00205 | 0.00411 |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 94.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C3-PFPeA | IS | 122 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C3-PFBS | IS | 140 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C2-PFHxA | IS | 93.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C4-PFHpA | IS | 90.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 18O2-PFHxS | IS | 95.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C2-PFOA | IS | 89.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C5-PFNA | IS | 83.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C8-PFOSA | IS | 39.6 |  | 50-150 |  | H | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C8-PFOS | IS | 90.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C2-PFDA | IS | 75.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| d3-MeFOSAA | IS | 69.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| d5-EtFOSAA | IS | 71.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C2-PFUnA | IS | 71.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C2-PFDoA | IS | 76.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| 13C2-PFTeDA | IS | 80.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.244 L | 18-Aug-18 20:14 | 1 |
| DL - Detection Limit | LOD - Limit of Detection <br> LOQ - Limit of quantitation | Results reported to the DL. |  |  | When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes. |  |  |  |  |  |  |

Analytical Laboratory

| Sample ID: Hortzendorf-DW-072518 |  |  |  |  |  |  |  |  | PFAS Isotope Dilution Method |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data <br> Name: <br> Project: | KMEA <br> Chase Field / 5026167008 | Matrix <br> Date C | $\begin{array}{ll}  & \mathrm{Wa} \\ \text { cted: } & 25 \end{array}$ | $8 \text { 13:29 }$ |  | tory Data mple: eceived: | $\begin{aligned} & 1802055-1 \\ & 27-J u l-18 \end{aligned}$ | $\begin{aligned} & 1 \\ & 10: 04 \end{aligned}$ | Column: | BEH C18 |  |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| PFBA | 375-22-4 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFPeA | 2706-90-3 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFBS | 375-73-5 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFHxA | 307-24-4 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFHpA | 375-85-9 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFHxS | 355-46-4 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFOA | 335-67-1 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFNA | 375-95-1 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFOSA | 754-91-6 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFOS | 1763-23-1 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFDA | 335-76-2 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFDS | 335-77-3 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFDoA | 307-55-1 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 93.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C3-PFPeA | IS | 122 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C3-PFBS | IS | 140 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C2-PFHxA | IS | 94.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C4-PFHpA | IS | 90.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 18O2-PFHxS | IS | 95.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C2-PFOA | IS | 87.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C5-PFNA | IS | 80.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C8-PFOSA | IS | 57.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C8-PFOS | IS | 96.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C2-PFDA | IS | 80.4 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| d3-MeFOSAA | IS | 73.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| d5-EtFOSAA | IS | 74.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C2-PFUnA | IS | 81.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C2-PFDoA | IS | 80.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| 13C2-PFTeDA | IS | 82.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 20:36 | 1 |
| DL - Detection Limit | LOD - Limit of Detection <br> LOQ - Limit of quantitation | Results | ted to the DL |  |  | When re linear an analytes | orted, PFHxS, <br> branched ison | PFOA, PFOS, M ers. Only the lin | FOSAA and Et ar isomer is rep | OSAA include both orted for all other |  |

Analytical Laboratory

| Sample ID: Charlies Pasture-DW-072518 |  |  |  |  |  |  |  |  | PFAS Isotope Dilution Method |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data <br> Name: <br> Project: | KMEA <br> Chase Field / 5026167008 | Matrix <br> Date | $\begin{array}{ll}  & \text { W } \\ \text { cted: } & 25 \end{array}$ | $13: 46$ |  | tory Data mple: eceived: | $\begin{aligned} & 1802055-1 \\ & 27-J u l-18 \end{aligned}$ | 10:04 | Column: | BEH C18 |  |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| PFBA | 375-22-4 | 0.0925 | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFPeA | 2706-90-3 | 0.300 | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFBS | 375-73-5 | 0.0382 | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFHxA | 307-24-4 | 0.390 | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFHpA | 375-85-9 | 0.174 | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFHxS | 355-46-4 | 0.916 | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFOA | 335-67-1 | 0.859 | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFNA | 375-95-1 | 0.0264 | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFOSA | 754-91-6 | 0.0247 | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFOS | 1763-23-1 | 1.47 | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFDA | 335-76-2 | 0.00208 | 0.00142 | 0.00207 | 0.00414 | J | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFDS | 335-77-3 | ND | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFDoA | 307-55-1 | ND | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00142 | 0.00207 | 0.00414 |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 91.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C3-PFPeA | IS | 122 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C3-PFBS | IS | 146 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C2-PFHxA | IS | 94.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C4-PFHpA | IS | 91.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 18O2-PFHxS | IS | 90.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C2-PFOA | IS | 89.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C5-PFNA | IS | 79.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C8-PFOSA | IS | 45.2 |  | 50-150 |  | H | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C8-PFOS | IS | 85.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C2-PFDA | IS | 74.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| d3-MeFOSAA | IS | 69.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| d5-EtFOSAA | IS | 72.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C2-PFUnA | IS | 79.4 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C2-PFDoA | IS | 80.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| 13C2-PFTeDA | IS | 88.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.241 L | 18-Aug-18 20:57 | 1 |
| DL - Detection Limit | LOD - Limit of Detection LOQ - Limit of quantitation | Results | ed to the DL |  |  | When re linear an analytes | orted, PFHxS, branched isom | FOA, PFOS, M rs. Only the li | FOSAA and Et ear isomer is rep | OSAA include both orted for all other |  |


| Sample ID: Charlies Pasture-FB-072518 |  |  |  |  |  |  |  |  | PFAS Isotope Dilution Method |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data |  | Matrix: Water <br> Date Collected: 25-Jul-18 13 |  |  | Laboratory Data <br> Lab Sample: <br> Date Received: |  | $\begin{aligned} & \text { 1802055-14 } \\ & \text { 27-Jul-18 10:04 } \end{aligned}$ |  | Column: <br> Samp Size | BEH C18 |  |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted |  | Analyzed | Dilution |
| PFBA | 375-22-4 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFPeA | 2706-90-3 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFBS | 375-73-5 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFHxA | 307-24-4 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFHpA | 375-85-9 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFHxS | 355-46-4 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFOA | 335-67-1 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFNA | 375-95-1 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFOSA | 754-91-6 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFOS | 1763-23-1 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFDA | 335-76-2 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFDS | 335-77-3 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFDoA | 307-55-1 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00144 | 0.00211 | 0.00422 |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| Labeled Standards | S Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 91.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C3-PFPeA | IS | 117 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C3-PFBS | IS | 122 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C2-PFHxA | IS | 91.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C4-PFHpA | IS | 82.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 18O2-PFHxS | IS | 88.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C2-PFOA | IS | 88.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C5-PFNA | IS | 81.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C8-PFOSA | IS | 41.9 |  | 50-150 |  | H | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C8-PFOS | IS | 89.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C2-PFDA | IS | 65.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| d3-MeFOSAA | IS | 61.4 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| d5-EtFOSAA | IS | 62.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C2-PFUnA | IS | 68.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C2-PFDoA | IS | 66.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| 13C2-PFTeDA | IS | 74.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.237 L | 18-Aug-18 21:08 | 1 |
| DL - Detection Limit | LOD - Limit of Detection <br> LOQ - Limit of quantitation | Results reported to the DL. |  |  | When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes. |  |  |  |  |  |  |


| Sample ID: Shooting Range 1-DW-072518 |  |  |  |  |  |  |  |  | PFAS Isotope Dilution Method |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data  <br> Name: KMEA <br> Project: Chase Field / 5026167008 |  | Matrix: Water <br> Date Collected: 25-Jul-18 14: |  |  | Laboratory Data <br> Lab Sample: <br> Date Received: |  | $\begin{aligned} & \text { 1802055-15 } \\ & \text { 27-Jul-18 10:04 } \end{aligned}$ |  | Column: | BEH C18 | Dilution |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed |  |
| PFBA | 375-22-4 | 0.0474 | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFPeA | 2706-90-3 | 0.116 | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFBS | 375-73-5 | 0.0249 | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFHxA | 307-24-4 | 0.160 | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFHpA | 375-85-9 | 0.0531 | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFHxS | 355-46-4 | 0.166 | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFOA | 335-67-1 | 0.0609 | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFNA | 375-95-1 | 0.00375 | 0.00141 | 0.00206 | 0.00412 | J | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFOSA | 754-91-6 | ND | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFOS | 1763-23-1 | 0.0592 | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFDA | 335-76-2 | ND | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFDS | 335-77-3 | ND | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFDoA | 307-55-1 | ND | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00141 | 0.00206 | 0.00412 |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 85.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C3-PFPeA | IS | 111 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C3-PFBS | IS | 130 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C2-PFHxA | IS | 84.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C4-PFHpA | IS | 81.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 18O2-PFHxS | IS | 81.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C2-PFOA | IS | 83.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C5-PFNA | IS | 78.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C8-PFOSA | IS | 45.8 |  | 50-150 |  | H | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C8-PFOS | IS | 83.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C2-PFDA | IS | 68.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| d3-MeFOSAA | IS | 71.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| d5-EtFOSAA | IS | 72.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C2-PFUnA | IS | 73.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C2-PFDoA | IS | 71.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| 13C2-PFTeDA | IS | 81.2 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.243 L | 18-Aug-18 21:40 | 1 |
| DL - Detection Limit | LOD - Limit of Detection <br> LOQ - Limit of quantitation | Results | ed to the DL |  |  | When re linear an analytes | orted, PFHxS, branched isom | PFOA, PFOS, M ers. Only the lin | eFOSAA and EtF ear isomer is repo | OSAA include both orted for all other |  |


| Sample ID: Shooting Range 1-FB-072518 |  |  |  |  |  |  |  |  | PFAS Isotope Dilution Method |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data  <br> Name: KMEA <br> Project: Chase Field / 5026167008 |  | Matrix: Water <br> Date Collected: $25-$ Jul-18 14 |  |  | Laboratory Data  <br> Lab Sample: 1802055-16 <br> Date Received: 27-Jul-18 10:04 |  |  |  | Column: <br> Samp Size | BEH C18 |  |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted |  | Analyzed | Dilution |
| PFBA | 375-22-4 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFPeA | 2706-90-3 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFBS | 375-73-5 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFHxA | 307-24-4 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFHpA | 375-85-9 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFHxS | 355-46-4 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFOA | 335-67-1 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFNA | 375-95-1 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFOSA | 754-91-6 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFOS | 1763-23-1 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFDA | 335-76-2 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFDS | 335-77-3 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFDoA | 307-55-1 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00144 | 0.00210 | 0.00420 |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 93.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C3-PFPeA | IS | 124 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C3-PFBS | IS | 129 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C2-PFHxA | IS | 94.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C4-PFHpA | IS | 87.5 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 18O2-PFHxS | IS | 92.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C2-PFOA | IS | 90.4 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C5-PFNA | IS | 82.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C8-PFOSA | IS | 43.1 |  | 50-150 |  | H | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C8-PFOS | IS | 97.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C2-PFDA | IS | 71.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| d3-MeFOSAA | IS | 63.4 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| d5-EtFOSAA | IS | 67.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C2-PFUnA | IS | 69.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C2-PFDoA | IS | 69.3 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| 13C2-PFTeDA | IS | 71.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.238 L | 18-Aug-18 21:51 | 1 |
| DL - Detection Limit | LOD - Limit of Detection <br> LOQ - Limit of quantitation | Results reported to the DL. |  |  | When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes. |  |  |  |  |  |  |

Analytical Laboratory

| Sample ID: DUP-1 |  |  |  |  | PFAS Isotope Dilution Method |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data  <br> Name: KMEA <br> Project: Chase Field / 5026167008 |  | Matrix: Water <br> Date Collected: $25-J u l-1800: 0$ |  |  | Laboratory Data <br> Lab Sample: <br> Date Received: |  | $\begin{aligned} & \text { 1802055-17 } \\ & \text { 27-Jul-18 10:04 } \end{aligned}$ |  | Column: | BEH C18 | Dilution |
| Analyte | CAS Number | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed |  |
| PFBA | 375-22-4 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFPeA | 2706-90-3 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFBS | 375-73-5 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFHxA | 307-24-4 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFHpA | 375-85-9 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFHxS | 355-46-4 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFOA | 335-67-1 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFNA | 375-95-1 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFOSA | 754-91-6 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFOS | 1763-23-1 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFDA | 335-76-2 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| MeFOSAA | 2355-31-9 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| EtFOSAA | 2991-50-6 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFUnA | 2058-94-8 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFDS | 335-77-3 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFDoA | 307-55-1 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFTrDA | 72629-94-8 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| PFTeDA | 376-06-7 | ND | 0.00138 | 0.00201 | 0.00402 |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 88.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C3-PFPeA | IS | 115 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C3-PFBS | IS | 129 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C2-PFHxA | IS | 85.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C4-PFHpA | IS | 83.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 18O2-PFHxS | IS | 89.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C2-PFOA | IS | 94.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C5-PFNA | IS | 81.6 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C8-PFOSA | IS | 23.8 |  | 50-150 |  | H | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C8-PFOS | IS | 84.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C2-PFDA | IS | 70.9 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| d3-MeFOSAA | IS | 65.8 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| d5-EtFOSAA | IS | 68.1 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C2-PFUnA | IS | 67.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C2-PFDoA | IS | 69.7 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| 13C2-PFTeDA | IS | 80.0 |  | 50-150 |  |  | B8G0238 | 06-Aug-18 | 0.249 L | 18-Aug-18 22:02 | 1 |
| DL - Detection Limit | LOD - Limit of Detection <br> LOQ - Limit of quantitation | Results reported to the DL. |  |  | When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes. |  |  |  |  |  |  |

## DATA QUALIFIERS \& ABBREVIATIONS

B This compound was also detected in the method blank
Conc. Concentration
D Dilution
DL Detection limit
E The associated compound concentration exceeded the calibration range of the instrument

H Recovery and/or RPD was outside laboratory acceptance limits
Chemical Interference
J The amount detected is below the Reporting Limit/LOQ
LOD Limits of Detection
LOQ Limits of Quantitation
M Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA Not applicable
ND Not Detected

Q Ion ratio outside of $\mathbf{7 0 - 1 3 0 \%}$ of Standard Ratio. (DOD PFAS projects only)
TEQ Toxic Equivalency
U Not Detected (specific projects only)

* See Cover Letter

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

## CERTIFICATIONS

| Accrediting Authority | Certificate Number |
| :--- | :---: |
| Alaska Department of Environmental Conservation | $17-013$ |
| 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 | 1322288 |
| New Hampshire Environmental Accreditation Program | 207717 |
| New Jersey Department of Environmental Protection | CA003 |
| New York Department of Health | 11411 |
| Oregon Laboratory Accreditation Program | $4042-008$ |
| Pennsylvania Department of Environmental Protection | 014 |
| Texas Commission on Environmental Quality | T104704189-17-8 |
| Virginia Department of General Services | 9077 |
| 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.



| 1802055 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Samples Arrival: | Date/Time$07 / 27 / 18 \quad 1004$ |  | Initials: <br> M2B |  | Location: WR. 2 <br> Shelf/Rack: NA |  |
| Logged In: | $\text { Date/TImel } 07 / 28 / 18 \quad 0848$ |  | Initials: <br> $\angle B S B$ |  | $\begin{array}{ll} \text { Location: } & \text { WR-2 } \\ \text { Shelf/Rack: } & \text { 厄5 / D5 } \end{array}$ |  |
| Delivered By: |  | On Trac | GSO | DHL | Hand Delivered | Other |
| Preservation: |  | Blue Ice |  | Dry Ice |  | None |
| Temp ${ }^{\circ} \mathrm{C}$ : | . 2 (uncorrected) | Time: 1010Probe used: Yes $\square$ Nob |  |  | Thermometer ID: IR-4 |  |
| Temp ${ }^{\circ} \mathrm{C}$ : | 1 (corrected) |  |  |  |  |  |



## Comments:

## EXTRACTION INFORMATION

Prep Expiration: 2018-Aug-08
Client: KMEA

Method: 537M PFAS DOD (LOQ as mR) Matrix: Aqueous

Workorder Due:17-Aug-18 00:00
TAT: 21

Prep Batch: $\qquad$

Version: TX+MeFOSAA+EtFOSAA (18 Analytes) DoD: DoD QSM 5.1

Prep Data Entered:

Initial Sequence:



Extract : hold samples \# 2, 4,6,8, 19,12,14,16 * Volume of Sample is $\sim 235 \mathrm{mt}$. $13888 / 2 / 18$ sample IDS may not reconcile $w /$ cDC - okay

Pre-Prep Check Out: LT O8|02118
Pro-Prep Check In: LT O8/02/18

Prep Check Out: $J R \quad 8 / 6 / 18$
Prep Check In: $\qquad$

PREPARATION BENCH SHEET

Method: 537M PFAS DOD (LOQ as mRL)

B8G0238

Prepared using: LCMS - SPE Extraction-LCMS

Chemist JR
Prep Date: 816118
Prep Time: 750

|  |  | Date/nitals: LT 08102/18 |  |  |  | BalancelD: HKMS-9 |  |  | $\begin{gathered} \text { IS/NS } \\ \text { CHEM/WIT } \\ \text { DATE } \end{gathered}$ | SPE | $\begin{gathered} \text { RS } \\ \text { CHEM/WIT } \\ \text { DATE } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cen | VISTA <br> Sample ID | $\underset{\text { Before }}{\substack{\mathrm{pH} \\ \hline}}$ | $\stackrel{\mathrm{pH}_{\text {After }}}{ }$ | $\begin{array}{\|l} \text { Chlorine } \\ \text { (CI) } \end{array}$ | Drops <br> HCl <br> Added | Bottle + Sample (g) | $\begin{aligned} & \text { Bottle } \\ & \text { Only } \\ & \text { (g) } \end{aligned}$ | Sample Amt. (L) |  |  |  |
| $\square$ | B8G0238-BLKI | 5 | 2 | 0 | 1 | $\cdots$ | NA | (0.250) | CIB LCC 8/618 | JB $8 / 6 / 16$ | JR ly 8/6/18 |
| $\square$ | B8G0238-BSI | 5 | 2 | D | 1 | $\downarrow$ | I | (0.250) | T | S T |  |
| $\square$ | B8G0238-MS1 1802055-07 | 7 | 2 | 0 | 6 | 286.71 | 37.70 | 0.24901 |  |  |  |
| $\square$ | B8G0238-MSDI $1802055-07$ | 5 | 2 | 0 | 6 | 283.18 | 37.32 | 0.24586 |  |  |  |
| $\square$ | 1802055-01 | 6 | 2 | 0 | 7 | 282.86 | 37.61 | 0.24525 |  |  |  |
| $\square$ | 1802055-02 | 5 | 2 | 0 | 1 | 281.36 | 37.56 | 0.2438 | $/$ |  |  |
| $\square$ | 1802055-03 | 6 | 2 | 0 | 6 |  | 37.36 | 0.24056 |  |  |  |
| $\square$ | 1802055-04 | 5 | 2 | 0 | 1 | 279.84 | 37.67 | 0.24217 |  |  |  |
| $\square$ | 1802055-05 | 6 | 2 | 0 | 6 | 277.78 | 37.55 | 0.24023 |  |  |  |
| $\square$ | 1802055-06 | 5 | 2 | 0 | 1 | 278.29 | 37.45 | 0.24084 |  |  |  |
| $\square$ <br> $\square$ <br> $\square$ | 1802055-07 | 6 | 2 | 0 | 5 | 276.93 | 37.59 | $0.23934$ |  |  |  |
| $\square$ | 1802055-08 | 5 | 2 | 0 | 1 | 258.09 | 37.88 | 0.22021 |  |  |  |
| $\square$ | 1802055-09 | 6 | 2 | 0 | 6 | 281.13 | 37.55 | 0.24358 |  |  |  |
| $\square$ | 1802055-10 | 5 | 2 | 0 | 1 | 282.61 | 37.91 | 0.2447 |  |  |  |
| $\square$ | 1802055-11 | 6 | 2 | 0 | 5 | 275.29 | 37.41 | 0.23788 |  |  |  |
| $\square$ | 1802055-12 | 5 | 2 | 0 | 1 | 279.97 | 37.67 | 0.2423 | $\checkmark \downarrow$ | $\downarrow$ | $\checkmark$ |

IS: $1850405,10 \mu \mathrm{~L}$ (v) SPE Chem: Stata XAW 33 , $200 \mathrm{mg} / 6 \mathrm{~m}$ ) Notes: Envicarb lot: 10262101 KCC 816118
is sup: NA
$\begin{array}{lll}\text { NS: } \\ \text { RS: } & 1852025,10 \mu \mathrm{~L}\end{array}$
Ele SOLv: MeOH/. $5 \%$ NHty OH in MoOt
Final Volume(s) 1 mL

Comments: Assume $1 \mathrm{~g}=1 \mathrm{~mL}$
Cen $=$ Centrifuged
Work Order 1802055

## PREPARATION BENCH SHEET

## Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

B8G0238

Prepared using: LCMS - SPE Extraction-LCMS

Chemist: $\qquad$
Prep Date: 816118
Prep Time: 750

|  |  | Date/Initals: LT 08p4/18 |  |  |  | BalancelD: HRMS-9 |  |  | IS/NS CHEM/WIT DATE | SPE | RSCHEM/WITDATE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cen | VISTA <br> Sample ID | pH Before | pH After | Chlorine (Cl) | Drops HCl Added | Bottle + Sample (g) | Bottle Only (g) | Sample Amt. <br> (L) |  |  |  |  |
| $\square$ | 1802055-13 | 6 | 2 | 0 | 6 | 279.23 | 37.95 | 0.24128 | KC 8/6/18 | IR 8/6/18 | $\Delta R \quad y$ | 8/6fe |
| $\square$ | 1802055-14 | 5 | 2 | 0 | 1 | 274.66 | 37.49 | 0.23717 |  |  | T |  |
| $\pm$ | 1802055-15 | 6 | 2 | 0 | 6 | 280.26 | 37.43 | 0.24283 |  |  |  |  |
| $\square$ | 1802055-16 | 5 | 2 | 0 | 1 | 275.90 | 37.71 | 0.23819 |  |  |  |  |
| $\square$ | 1802055-17 | 6 | 2 | 0 | 6 | 286.59 | 38.01 | 0.24858 | $\checkmark$ | $\downarrow$ |  | , |


| IS: $18 F=0405,10 \mu<1$ <br> is sup: NA <br> NS: $\quad 185,202510 \mu(3)$ <br> RS: $18 \mathrm{FO406}, 10 \mu \mathrm{~L}\left(\frac{1}{2}\right)$ | SPE Chem: Strata $\times$ Aw $33 \mathrm{um} 20 \mathrm{mg} / 6 \mathrm{~cm}$ Ele SOLV: MeOIt/. $5 \%$ MHy 4 in MeOIt Final Volumes(s) $\qquad$ lmL | Notes: Envicarb lot: 10262101 KC 816118 |
| :---: | :---: | :---: |

Comments: Assume $1 \mathrm{~g}=1 \mathrm{~mL}$

Batch: B8G0238

## Matrix: Aqueous

| LabNumber | WetWeight (Initial) | \% Solids <br> (Extraction Solids) | DryWeight | Final | Extracted | Ext By | Spike | SpikeAmount | ClientMatrix | Analysis |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1802055-01 | $0.24525 \checkmark$ | NA | NA | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-02 | 0.2438 , | T | T | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-03 | 0.24056 |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-04 | 0.24217 |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-05 | $0.24023 \checkmark$ |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-06 | $0.24084 \checkmark$ |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-07 | 0.23934 |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-08 | $0.22021 \checkmark$ |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-09 | 0.24358 |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-10 | $0.2447 \checkmark$ |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-11 | $0.23788 \checkmark$ |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-12 | $0.2423 \checkmark$ |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-13 | 0.24128 / |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-14 | $0.23717 \checkmark$ |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-15 | $0.24283 \checkmark$ |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-16 | $0.23819 \checkmark$ |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| 1802055-17 | 0.24858 |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  | Water | 537M PFAS DOD (LOQ as |
| B8G0238-BLK1 | 0.25 |  |  | 1000 | 06-Aug-18 07:50 | JMR |  |  |  | QC |
| B8G0238-BS1 | $0.25{ }^{\text {d }}$ |  |  | 1000 | 06-Aug-18 07:50 | JMR | 18F2025 | $10 \checkmark$ |  | QC |
| B8G0238-MS1 | $0.24901 /$ |  |  | 1000 | 06-Aug-18 07:50 | JMR | 18F2025 | 10 |  | QC |
| B8G0238-MSD1 | 0.24586 | $\checkmark$ | $\downarrow$ | 1000 | 06-Aug-18 07:50 | JMR | 18F2025 | $10 \checkmark$ |  | QC |

uy $8107 / 18$

Sample Data - PFAS Isotope Dilution Method

| Dataset: | Z:IProjects\|PFAS.PRO\Results\180818M21180818M2-21.qlo |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:12:12 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:12:38 Pacific Daylight Time |

Name: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | RT | Respon... | Conc. | \%Rec | Ion Ratio | Ratio Out? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ | 9.82 e 1 | 2.17 e 4 | 0.250 | 0.000 | 1.08 | 0.0566 | 0.3015 |  |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 2.95 e 4 | 0.250 |  |  |  |  |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ |  | 3.31 e 3 | 0.250 |  |  |  |  |  |  |  |  |
| 4 | 4 4:2 FTS | $327.2>307.2$ |  | 6.65 e 3 | 0.250 |  |  |  |  |  |  |  |  |
| 5 | 5 PFHxA | $313>269$ |  | 1.83 e 4 | 0.250 |  |  |  |  |  |  |  |  |
| 6 | 36 13C3-PFBA | $216.1>171.8$ | 2.17 e 4 | 2.96 e 4 | 0.250 | 0.733 | 1.08 | 9.16 | 44.5925 | 89.2 |  |  |  |
| 7 | 37 13C3-PFPeA | 266. $>221.8$ | 2.95 e 4 | 5.36 e 4 | 0.250 | 0.551 | 2.04 | 6.88 | 56.6506 | 113.3 |  |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 3.31 e 3 | 5.36 e 4 | 0.250 | 0.0616 | 2.33 | 0.770 | 61.2647 | 122.5 |  |  |  |
| 9 | 39 13C2-4:2 FTS | $329.2>308.9$ | 6.65 e 3 | 5.36 e 4 | 0.250 | 0.124 | 2.77 | 1.55 | 41.9987 | 84.0 |  |  |  |
| 10 | 40 13C2-PFHxA | $315>270$ | 1.83 e 4 | 5.36 e 4 | 0.250 | 0.851 | 2.86 | 4.25 | 17.4637 | 87.3 |  |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 6 PFPeS | $349.1>80.1$ |  | 3.31 e 3 | 0.250 |  |  |  |  |  |  |  |  |
| 13 | 7 PFHpA | $363.0>318.9$ |  | 2.79 e 4 | 0.250 |  |  |  |  |  |  |  |  |
| 14 | 8 L-PFHxS | $398.9>79.6$ | 8.54 eO | 2.76 e 3 | 0.250 | 0.000 | 3.63 | 0.0386 | 0.1453 |  | 1.59 | NO |  |
| 15 | 68 Total PFHxS | $398.9>79.6$ | 8.54 e 0 | 2.76 e 3 | 0.250 |  |  | 0.0386 | 0.1453 |  |  |  |  |
| 16 | 10 6:2 FTS | $427.1>407$ | 2.45 e 1 | 6.45 e 3 | 0.250 | 0.000 | 3.95 | 0.0475 | 0.0709 |  | 15.7 | YES |  |
| 17 | 38 13C3-PFBS | 302. > 98.8 | 3.31 e 3 | 5.36 e 4 | 0.250 | 0.0616 | 2.33 | 0.770 | 61.2647 | 122.5 |  |  |  |
| 18 | 41 13C4-PFHpA | $367.2>321.8$ | 2.79 e 4 | 5.36 e 4 | 0.250 | 0.520 | 3.48 | 6.50 | 42.4786 | 85.0 |  |  |  |
| 19 | 42 1802-PFHxS | $403.0>102.6$ | 2.76 e 3 | 6.37 e 3 | 0.250 | 0.434 | 3.63 | 5.43 | 44.9262 | 89.9 |  |  |  |
| 20 | 42 1802-PFHxS | $403.0>102.6$ | 2.76 e 3 | 6.37 e 3 | 0.250 | 0.434 | 3.63 | 5.43 | 44.9262 | 89.9 |  |  |  |
| 21 | 43 13C2-6:2 FTS | $429.1>408.9$ | 6.45 e 3 | 5.72e4 | 0.250 | 0.113 | 3.95 | 1.41 | 39.5033 | 79.0 |  |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 11 L-PFOA | 412.9 > 368.9 | 3.43 e 2 | 4.03 e 4 | 0.250 | 0.000 | 4.01 | 0.106 | 0.2875 |  | 2.65 | NO |  |
| 24 | 69 Total PFOA | $412.9>368.9$ | 3.43 e 2 | 4.03 e 4 | 0.250 |  |  | 0.106 | 0.2875 |  |  |  |  |
| 25 | 13 PFHpS | $449>80.0$ |  | 6.20 e 3 | 0.250 |  |  |  |  |  |  |  |  |
| 26 | 16 L-PFOS | $498.9>79.9$ | 2.06 e 0 | 6.20 e 3 | 0.250 | 0.000 | 4.44 | 0.00416 | 0.1254 |  | 0.356 | YES |  |
| 27 | 70 Total PFOS | $498.9>79.9$ | 2.06 e 0 | 6.20 e 3 | 0.250 |  |  | 0.00416 | 0.1254 |  |  |  |  |
| 28 | 44 13C2-PFOA | 414.9 > 369.7 | 4.03 e 4 | 5.72e4 | 0.250 | 0.706 | 4.01 | 8.82 | 42.9838 | 86.0 |  |  |  |
| 29 | 44 13C2-PFOA | $414.9>369.7$ | 4.03 e 4 | 5.72 e 4 | 0.250 | 0.706 | 4.01 | 8.82 | 42.9838 | 86.0 |  |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 6.20 e 3 | 7.34 e 3 | 0.250 | 0.844 | 4.55 | 10.6 | 40.1219 | 80.2 |  |  |  |
| 31 | 47 13C8-PFOS | $507.0>79.9$ | 6.20 e 3 | 7.34 e 3 | 0.250 | 0.844 | 4.55 | 10.6 | 40.1219 | 80.2 |  |  |  |
| 32 | 47 13C8-PFOS | $507.0>79.9$ | 6.20 e 3 | 7.34 e 3 | 0.250 | 0.844 | 4.55 | 10.6 | 40.1219 | 80.2 |  |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 14 PFNA | $463.0>418.8$ |  | 4.04 e 4 | 0.250 |  |  |  |  |  |  |  |  |
| 35 | 15 PFOSA | $498>77.9$ |  | 5.19 e 3 | 0.250 |  |  |  |  |  |  |  | AD 8/21/2018 |
| 36 | 18 PFDA | $513>468.8$ |  | 3.59e4 | 0.250 |  |  |  |  |  |  |  |  |
|  | Work Order 1802055 |  |  |  |  |  |  |  |  |  |  |  | 4 of 364 |

## Dataset: Z:IProjects\PFAS.PRO\Results\180818M21180818M2-21.qld <br> Last Altered: Tuesday, August 21, 2018 11:12:12 Pacific Daylight Time

 Printed: $\quad$ Tuesday, August 21, 2018 11:12:38 Pacific Daylight TimeName: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | RT | Respon... | Conc. | \%Rec | Ion Ratio | Ratio Out? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 19 8:2 FTS | $527>506.9$ |  | 6.37 e 3 | 0.250 |  |  |  |  |  |  |  |  |
| 38 | 20 PFNS | $549.1>80.1$ |  | 6.20 e 3 | 0.250 |  |  |  |  |  |  |  |  |
| 39 | 45 13C5-PFNA | $468.2>422.9$ | 4.04 e 4 | 5.07e4 | 0.250 | 0.797 | 4.46 | 9.96 | 40.9591 | 81.9 |  |  |  |
| 40 | 46 13C8-PFOSA | $506.1>77.7$ | 5.19 e 3 | 5.81 e 4 | 0.250 | 0.0893 | 4.52 | 1.12 | 25.4122 | 50.8 |  |  |  |
| 41 | 48 13C2-PFDA | $515.1>469.9$ | 3.59 e 4 | 5.56 e 4 | 0.250 | 0.646 | 4.84 | 8.08 | 33.7422 | 67.5 |  |  |  |
| 42 | 49 13C2-8:2 FTS | $529.1>508.7$ | 6.37 e 3 | 5.72e4 | 0.250 | 0.111 | 4.81 | 1.39 | 46.9084 | 93.8 |  |  |  |
| 43 | 47 13C8-PFOS | $507.0>79.9$ | 6.20 e 3 | 7.34 e 3 | 0.250 | 0.844 | 4.55 | 10.6 | 40.1219 | 80.2 |  |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 21 L-MeFOSAA | $570>419$ |  | 9.05 e 3 | 0.250 |  |  |  |  |  |  |  |  |
| 46 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00e0 | 9.05 e 3 | 0.250 |  |  | 0.000 |  |  |  |  |  |
| 47 | 23 L-EtFOSAA | $584.1>419$ |  | 9.74 e 3 | 0.250 |  |  |  |  |  |  |  |  |
| 48 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 9.74 e 3 | 0.250 |  |  | 0.000 |  |  |  |  |  |
| 49 | 25 PFUdA | $563.0>518.9$ | 1.12 e 2 | 3.99 e 4 | 0.250 | 0.000 | 5.18 | 0.0352 | 0.0544 |  | 33.2 | YES |  |
| 50 | 50 d3-N-MeFOSAA | $573.3>419$ | 9.05 e 3 | 5.81e4 | 0.250 | 0.156 | 5.00 | 1.95 | 32.2584 | 64.5 |  |  |  |
| 51 | 50 d3-N-MeFOSAA | $573.3>419$ | 9.05 e 3 | 5.81 e 4 | 0.250 | 0.156 | 5.00 | 1.95 | 32.2584 | 64.5 |  |  |  |
| 52 | 52 d5-N-EtFOSAA | $589.3>419$ | 9.74 e 3 | 5.81 e 4 | 0.250 | 0.168 | 5.16 | 2.10 | 32.0110 | 64.0 |  |  |  |
| 53 | 52 d5-N-EtFOSAA | $589.3>419$ | 9.74 e 3 | 5.81 e 4 | 0.250 | 0.168 | 5.16 | 2.10 | 32.0110 | 64.0 |  |  |  |
| 54 | 51 13C2-PFUdA | $565>519.8$ | 3.99 e 4 | 5.81 e 4 | 0.250 | 0.687 | 5.18 | 8.59 | 34.9412 | 69.9 |  |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 26 PFDS | $598.8>79.9$ |  | 6.20 e 3 | 0.250 |  |  |  |  |  |  |  |  |
| 57 | 27 PFDoA | $612.9>569.0$ |  | 4.03 e 4 | 0.250 |  |  |  |  |  |  |  |  |
| 58 | 29 PFTrDA | $662.9>618.9$ | 6.33 e 1 | 4.03 e 4 | 0.250 | 0.000 | 5.73 | 0.0197 | 0.1403 |  | 22.5 | NO |  |
| 59 | 30 PFTeDA | 712.8 > 669.0 | 8.47 e 1 | 2.98 e 4 | 0.250 | 0.000 | 5.95 | 0.0356 | 0.1579 |  | 38.1 | YES |  |
| 60 | 28 N-MeFOSA | $512.1>168.9$ |  |  | 0.250 |  |  |  |  |  |  |  |  |
| 61 | 51 13C2-PFUdA | $565>519.8$ | 3.99 e 4 | 5.81 e 4 | 0.250 | 0.687 | 5.18 | 8.59 | 34.9412 | 69.9 |  |  |  |
| 62 | 53 13C2-PFDoA | $615.0>569.7$ | 4.03 e 4 | 5.56 e 4 | 0.250 | 0.724 | 5.47 | 9.05 | 33.4400 | 66.9 |  |  |  |
| 63 | 53 13C2-PFDoA | $615.0>569.7$ | 4.03 e 4 | 5.56 e 4 | 0.250 | 0.724 | 5.47 | 9.05 | 33.4400 | 66.9 |  |  |  |
| 64 | 55 13C2-PFTeDA | $714.8>669.6$ | 2.98 e 4 | 5.81 e 4 | 0.250 | 0.513 | 5.95 | 6.41 | 32.9910 | 66.0 |  |  |  |
| 65 | 54 d3-N-MeFOSA | $515.2>168.9$ |  | 5.81 e 4 | 0.250 |  |  |  |  |  |  |  |  |
| 66 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 67 | 31 N-EtFOSA | $526.1>168.9$ |  |  | 0.250 |  |  |  |  |  |  |  |  |
| 68 | 32 PFHxDA | $813.1>768.6$ | 1.53 e 2 | 9.33 e 3 | 0.250 | 0.000 | 6.32 | 0.0818 | 0.1635 |  | 279 | YES |  |
| 69 | 33 PFODA | $913.1>868.8$ |  | 9.33 e 3 | 0.250 |  |  |  |  |  |  |  |  |
| 70 | 34 N-MeFOSE | $616.1>58.9$ |  |  | 0.250 |  |  |  |  |  |  |  |  |
| 71 | $35 \mathrm{~N}-\mathrm{EtFOSE}$ | $630.1>58.9$ |  |  | 0.250 |  |  |  |  |  |  |  | AD 8/21/2018 |
| 72 | 56 d5-N-ETFOSA | $531.1>168.9$ |  | 5.81e4 | 0.250 |  |  |  |  |  |  |  |  |
|  | Work Order 1802055 |  |  |  |  |  |  |  |  |  |  |  | of 364 |

## Quantify Sample Report

Dataset:
Z:|Projects\PFAS.PRO\Results\180818M2\180818M2-21.qld
Last Altered: Tuesday, August 21, 2018 11:12:12 Pacific Daylight Time Printed: Tuesday, August 21, 2018 11:12:38 Pacific Daylight Time

## Name: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | RT Respon... |  | $\begin{gathered} \text { Conc. } \\ 8.111 \text { a } \end{gathered}$ | $\begin{array}{r} \hline \text { \%Rec } \\ \hline 40.6 \end{array}$ | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 73 | 57 13C2-PFHxDA | $815>769.7$ | 9.33 e 3 | 5.81 e 4 | 0.250 | 0.402 | 6.32 | 2.01 |  |  |  |  |
| 74 | 57 13C2-PFHxDA | $815>769.7$ | 9.33 e3 | 5.81 e4 | 0.250 | 0.402 | 6.32 | 2.01 | 8.1113 | 40.6 |  |  |
| 75 | 58 d7-N-MeFOSE | $623.1>58.9$ |  | 5.81 e 4 | 0.250 |  |  |  |  |  |  |  |
| 76 | 59 d9-N-EtFOSE | $639.2>58.8$ |  | 5.81 e 4 | 0.250 |  |  |  |  |  |  |  |
| 77 | -1 |  |  |  |  |  |  |  |  |  |  |  |
| 78 | 73 TCDA | 498.3>106.9 |  |  | 0.250 |  |  |  |  |  |  |  |
| 79 | 61 13C5-PFHxA | $318>272.9$ | 5.36 e 4 | 5.36 e 4 | 0.250 | 1.00 | 2.86 | 12.5 | 50.0000 | 100.0 |  |  |
| 80 | 60 13C4-PFBA | 217. $>172$ | 2.96 e4 | 2.96 e4 | 0.250 | 1.00 | 1.07 | 12.5 | 50.0000 | 100.0 |  |  |
| 81 | 62 13C3-PFHxS | $401.8>79.9$ | 6.37 e 3 | 6.37 e 3 | 0.250 | 1.00 | 3.63 | 12.5 | 50.0000 | 100.0 |  |  |
| 82 | 63 13C8-PFOA | $420.9>376$ | 5.72e4 | 5.72 e4 | 0.250 | 1.00 | 4.01 | 12.5 | 50.0000 | 100.0 |  |  |
| 83 | 47 13C8-PFOS | $507.0>79.9$ | 6.20 e 3 | 7.34e3 | 0.250 | 0.844 | 4.55 | 10.6 | 40.1219 | 80.2 |  |  |
| 84 | 64 13C9-PFNA | $472.2>426.9$ | 5.07e4 | 5.07 e 4 | 0.250 | 1.00 | 4.46 | 12.5 | 50.0000 | 100.0 |  |  |
| 85 | 65 13C4-PFOS | $503>79.9$ | 7.34 e 3 | 7.34 e 3 | 0.250 | 1.00 | 4.55 | 12.5 | 50.0000 | 100.0 |  |  |
| 86 | 66 13C6-PFDA | $519.1>473.7$ | 5.56 e 4 | 5.56 e 4 | 0.250 | 1.00 | 4.84 | 12.5 | 50.0000 | 100.0 |  |  |
| 87 | 67 13C7-PFUdA | $570.1>524.8$ | 5.81 e 4 | 5.81 e 4 | 0.250 | 1.00 | 5.18 | 12.5 | 50.0000 | 100.0 |  |  |

## Dataset: <br> Z:IProjects\PFAS.PRO\Results\180818M2\180818M2-21.qld

Last Altered:
Tuesday, August 21, 2018 11:12:12 Pacific Daylight Time Printed: Tuesday, August 21, 2018 11:12:38 Pacific Daylight Time

## Method: Z:|Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:|Projects\PFAS.PRO\CurveDBIC18_VAL-PFĀ_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

## Name: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank



13C3-PFBA
F3:MRM of 1 channel,ES-
$216.1>171.8$

PFPeA


13C3-PFPeA
F6:MRM of 1 channel,ES-
$266 .>221.8$

## PFBS



13C3-PFBS




## 13C2-4:2 FTS



PFHxA


13C2-PFHxA
F10:MRM of 1 channel,ES-
$315>270$


## Dataset: Z:IProjects\PFAS.PRO\Results\180818M21180818M2-21.qld

Last Altered: Tuesday, August 21, 2018 11:12:12 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:12:38 Pacific Daylight Time

## Name: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank




13C4-PFHpA
F17:MRM of 1 channel,ES-
$367.2>321.8$
$6.739 \mathrm{e}+005$


## L-PFHxS



1802-PFHxS



## 6:2 FTS



13C2-6:2 FTS
F25:MRM of 1 channel,ES429.1 > 408.9 $1.732 \mathrm{e}+005$


## Dataset: Z:IProjects\PFAS.PRO\Results\180818M21180818M2-21.qld

## Last Altered: Tuesday, August 21, 2018 11:12:12 Pacific Daylight Time

 Printed: $\quad$ Tuesday, August 21, 2018 11:12:38 Pacific Daylight Time
## Name: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank

## L-PFOA

| F21:MRM of 2 channels,ES- |
| ---: |
| $412.9>368.9$ |
| $1.180 \mathrm{e}+004$ |
| 100 |



13C2-PFOA
F22:MRM of 1 channel,ES-
$414.9>369.7$
$1.106 \mathrm{e}+006$
F22:MRM of 1 channel,ES-
$414.9>369.7$
$1.106 \mathrm{e}+006$


13C8-PFOS $35: M R M$ of 1 channel,ES-





13C8-PFOS


## Total PFOS

| F32:MRM of 2 channels,ES- |
| ---: |
| $498.9>79.9$ |
| $6.790 \mathrm{e}+001$ |
| 100 |

$$
\begin{aligned}
& \text { F32:MRM of } 2 \text { channels,ES- } \\
& 498.9>99 \\
& 1.894 \mathrm{e}+002
\end{aligned}
$$

13C8-PFOS
F35:MRM of 1 channel,ES$507.0>79.9$ $1.603 \mathrm{e}+005$

## Dataset: Z:|Projects|PFAS.PRO\Results\180818M21180818M2-21.qld

## Last Altered: Tuesday, August 21, 2018 11:12:12 Pacific Daylight Time

 Printed: Tuesday, August 21, 2018 11:12:38 Pacific Daylight Time
## Name: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank




13C5-PFNA
F28:MRM of 1 channel,ES-


## PFOSA



13C8-PFOSA
F34:MRM of 1 channel,ES 1 channel,ES-
$506.1>77.7$ $1.337 e+005$


## PFDA




13C2-PFDA
F38:MRM of 1 channel,ES-
F38:MRM of 1 channel,ES-
$515.1>469.9$
$515.1>469.9$
$9.625 \mathrm{e}+005$



## Dataset: Z:|Projects|PFAS.PRO\Results\180818M21180818M2-21.qld

Last Altered: Tuesday, August 21, 2018 11:12:12 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 11:12:38 Pacific Daylight Time

## Name: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank

## L-MeFOSAA

F48:MRM of 2 channels,ES-
$570>419$
$9.274 \mathrm{e}+001$

d3-N-MeFOSAA
F50:MRM of 1 channel,ES-
$573.3>419$ Fi3.3>419
$100 \quad 2.175 \mathrm{e}+005$


## L-EtFOSAA


d5-N-EtFOSAA



d5-N-EtFOSAA
F52:MRM of 1 channel,ES channel,ES-
$589.3>419$
$2.454 \mathrm{e}+005$


PFUdA


13C2-PFUdA
F47:MRM of 1 channel,ES$565>519.8$


## Dataset: Z:IProjects\PFAS.PRO\Results\180818M21180818M2-21.qld

## Last Altered: Tuesday, August 21, 2018 11:12:12 Pacific Daylight Time

 Printed: Tuesday, August 21, 2018 11:12:38 Pacific Daylight Time
## Name: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank




13C2-PFUdA
F47:MRM of 1 channel,ES-





13C2-PFDoA
F55:MRM of 2 channels,ES$615.0>569.7$
$9.406 e+005$


## PFTrDA



13C2-PFDoA



13C2-PFTeDA



d3-N-MeFOSA
F39:MRM of 1 channel,ES$515.2>168.9$


## Dataset: <br> Z:|Projects\PFAS.PRO\Results\180818M2\180818M2-21.qld

## Last Altered: <br> Tuesday, August 21, 2018 11:12:12 Pacific Daylight Time

 Printed: Tuesday, August 21, 2018 11:12:38 Pacific Daylight Time
## Name: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank

N-EtFOSA



13C2-PFHxDA
F64:MRM of 1 channel,ESchannel,ES
$815>769.7$ $2.298 \mathrm{e}+005$

PFODA


13C2-PFHxDA

d7-N-MeFOSE
F57:MRM of 1 channel,ES


## N-EtFOSE


d9-N-EtFOSE


## Dataset: <br> Z:IProjects\PFAS.PRO\Results\180818M21180818M2-21.qld

Last Altered: Tuesday, August 21, 2018 11:12:12 Pacific Daylight Time Printed: Tuesday, August 21, 2018 11:12:38 Pacific Daylight Time

## Name: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank




13C8-PFOS
13C9-PFNA



13C4-PFOS
F33:MRM of 1 channel ES




## 13C8-PFOA

F23:MRM of 1 channel,ES$420.9>376$ $1.553 \mathrm{e}+006$

Dataset:
Z:IProjects\PFAS.PRO\Results\180818M2\180818M2-18.qld
Last Altered: Tuesday, August 21, 2018 11:07:02 Pacific Daylight Time Printed: Tuesday, August 21, 2018 11:08:10 Pacific Daylight Time

Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | RT Respon... |  | Conc. | \%Rec | Ion Ratio | Ratio Out? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ | 1.68 e4 | 1.98 e 4 | 0.250 | 1.06 | 1.08 | 10.6 | 36.7690 | 91.9 |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ | 1.99 e4 | 2.72 e 4 | 0.250 | 0.912 | 2.04 | 9.12 | 38.4552 | 96.1 |  |  |  |
| 3 | 3 PFBS | 299.0 > 79.7 | 4.22 e 3 | 3.00 e3 | 0.250 | 1.76 | 2.34 | 17.6 | 35.2746 | 88.2 | 2.66 | NO |  |
| 4 | 4 4:2 FTS | $327.2>307.2$ | 4.72 e 3 | 6.18 e 3 | 0.250 | 0.956 | 2.77 | 9.56 | 40.0547 | 100.1 | 1.57 | NO |  |
| 5 | 5 PFHxA | $313>269$ | 3.10 e 4 | 1.63 e 4 | 0.250 | 0.951 | 2.86 | 9.51 | 39.6063 | 99.0 | 15.3 | NO |  |
| 6 | $3613 C 3-P F B A$ | $216.1>171.8$ | 1.98 e 4 | 2.65 e4 | 0.250 | 0.747 | 1.08 | 9.34 | 45.4645 | 90.9 |  |  |  |
| 7 | 37 13C3-PFPeA | 266. $>221.8$ | 2.72 e 4 | 4.78 e 4 | 0.250 | 0.570 | 2.04 | 7.12 | 58.6045 | 117.2 |  |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 3.00e3 | 4.78 e 4 | 0.250 | 0.0628 | 2.34 | 0.784 | 62.3828 | 124.8 |  |  |  |
| 9 | 39 13C2-4:2 FTS | $329.2>308.9$ | 6.18 e 3 | 4.78 e 4 | 0.250 | 0.129 | 2.77 | 1.62 | 43.7792 | 87.6 |  |  |  |
| 10 | 40 13C2-PFHXA | $315>270$ | 1.63 e 4 | 4.78 e 4 | 0.250 | 0.852 | 2.86 | 4.26 | 17.4861 | 87.4 |  |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 6 PFPeS | $349.1>80.1$ | 3.93 e 3 | 3.00 e 3 | 0.250 | 1.64 | 3.06 | 16.4 | 30.5576 | 76.4 | 1.69 | NO |  |
| 13 | 7 PFHpA | $363.0>318.9$ | 2.10 e 4 | 2.53 e 4 | 0.250 | 1.04 | 3.48 | 10.4 | 37.0253 | 92.6 | 19.1 | NO |  |
| 14 | 8 L-PFHxS | $398.9>79.6$ | 3.09 e 3 | 2.44 e 3 | 0.250 | 1.58 | 3.64 | 15.8 | 36.5839 | 91.5 | 1.60 | NO |  |
| 15 | 68 Total PFHxS | $398.9>79.6$ | 3.09 e 3 | 2.44 e 3 | 0.250 |  |  | 15.8 | 36.5839 |  |  |  |  |
| 16 | 10 6:2 FTS | $427.1>407$ | 5.30 e 3 | 6.32 e 3 | 0.250 | 1.05 | 3.95 | 10.5 | 41.1952 | 103.0 | 2.73 | NO |  |
| 17 | 38 13C3-PFBS | 302. > 98.8 | 3.00e3 | 4.78 e 4 | 0.250 | 0.0628 | 2.34 | 0.784 | 62.3828 | 124.8 |  |  |  |
| 18 | 41 13C4-PFHpA | $367.2>321.8$ | 2.53 e 4 | 4.78 e 4 | 0.250 | 0.530 | 3.48 | 6.63 | 43.3283 | 86.7 |  |  |  |
| 19 | 42 1802-PFHxS | $403.0>102.6$ | 2.44 e 3 | 5.73 e 3 | 0.250 | 0.425 | 3.63 | 5.31 | 43.9645 | 87.9 |  |  |  |
| 20 | 42 1802-PFHxS | $403.0>102.6$ | 2.44 e 3 | 5.73 e3 | 0.250 | 0.425 | 3.63 | 5.31 | 43.9645 | 87.9 |  |  |  |
| 21 | 43 13C2-6:2 FTS | $429.1>408.9$ | 6.32 e 3 | 5.16 e 4 | 0.250 | 0.123 | 3.95 | 1.53 | 42.9147 | 85.8 |  |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 11 L-PFOA | $412.9>368.9$ | 2.86 e 4 | 3.74 e 4 | 0.250 | 0.958 | 4.01 | 9.58 | 37.8929 | 94.7 | 2.73 | NO |  |
| 24 | 69 Total PFOA | $412.9>368.9$ | 2.86 e 4 | 3.74 e 4 | 0.250 |  |  | 9.58 | 37.8929 |  |  |  |  |
| 25 | 13 PFHpS | $449>80.0$ | 4.08 e 3 | 5.83e3 | 0.250 | 0.873 | 4.13 | 8.73 | 41.0460 | 102.6 | 1.87 | NO |  |
| 26 | 16 L-PFOS | $498.9>79.9$ | 4.33 e 3 | 5.83 e 3 | 0.250 | 0.927 | 4.55 | 9.27 | 40.2584 | 100.6 | 1.90 | NO |  |
| 27 | 70 Total PFOS | 498.9 > 79.9 | 4.33 e 3 | 5.83 e 3 | 0.250 |  |  | 9.27 | 40.2584 |  |  |  |  |
| 28 | 44 13C2-PFOA | 414.9 > 369.7 | 3.74 e 4 | 5.16 e 4 | 0.250 | 0.725 | 4.01 | 9.06 | 44.1369 | 88.3 |  |  |  |
| 29 | 44 13C2-PFOA | $414.9>369.7$ | 3.74 e 4 | 5.16 e 4 | 0.250 | 0.725 | 4.01 | 9.06 | 44.1369 | 88.3 |  |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 5.83 e 3 | 6.63 e3 | 0.250 | 0.880 | 4.55 | 11.0 | 41.8140 | 83.6 |  |  |  |
| 31 | 47 13C8-PFOS | $507.0>79.9$ | 5.83 e 3 | 6.63 e3 | 0.250 | 0.880 | 4.55 | 11.0 | 41.8140 | 83.6 |  |  |  |
| 32 | 47 13C8-PFOS | $507.0>79.9$ | 5.83 e 3 | 6.63 e3 | 0.250 | 0.880 | 4.55 | 11.0 | 41.8140 | 83.6 |  |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 14 PFNA | $463.0>418.8$ | 3.12 e 4 | 3.81 e 4 | 0.250 | 1.03 | 4.46 | 10.3 | 34.8510 | 87.1 | 4.69 | NO |  |
| 35 | 15 PFOSA | $498>77.9$ | 3.50e3 | 4.47 e 3 | 0.250 | 0.978 | 4.52 | 9.78 | 37.8314 | 94.6 | 34.5 | NO | AD 8/21/2018 |
| 36 | 18 PFDA | 513>468.8 | 3.20e4 | 3.39 e 4 | 0.250 | 1.18 | 4.84 | 11.8 | 37.8931 | 94.7 | 6.40 | NO |  |
|  | Work Order 1802055 |  |  |  |  |  |  |  |  |  |  |  | of 364 |

## Dataset: <br> Z:|Projects\PFAS.PRO\Results\180818M2\180818M2-18.qld <br> Last Altered: Tuesday, August 21, 2018 11:07:02 Pacific Daylight Time Printed: Tuesday, August 21, 2018 11:08:10 Pacific Daylight Time

Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF |  | Respon... | Conc. | \%Rec | Ion Ratio | Ratio Out? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 19 8:2 FTS | $527>506.9$ | 5.58 e 3 | 5.29e3 | 0.250 | 1.32 | 4.81 | 13.2 | 41.5289 | 103.8 | 2.29 | NO |  |
| 38 | 20 PFNS | $549.1>80.1$ | 3.62 e 3 | 5.83e3 | 0.250 | 0.776 | 4.91 | 7.76 | 37.7872 | 94.5 | 1.62 | NO |  |
| 39 | 45 13C5-PFNA | $468.2>422.9$ | 3.81 e 4 | 4.37 e 4 | 0.250 | 0.870 | 4.46 | 10.9 | 44.7162 | 89.4 |  |  |  |
| 40 | 46 13C8-PFOSA | $506.1>77.7$ | 4.47 e 3 | 5.08 e 4 | 0.250 | 0.0880 | 4.52 | 1.10 | 25.0657 | 50.1 |  |  |  |
| 41 | 48 13C2-PFDA | $515.1>469.9$ | 3.39 e 4 | 4.72 e 4 | 0.250 | 0.719 | 4.84 | 8.99 | 37.5606 | 75.1 |  |  |  |
| 42 | 49 13C2-8:2 FTS | $529.1>508.7$ | 5.29 e 3 | 5.16 e 4 | 0.250 | 0.103 | 4.81 | 1.28 | 43.2140 | 86.4 |  |  |  |
| 43 | 47 13C8-PFOS | $507.0>79.9$ | 5.83 e 3 | 6.63 e3 | 0.250 | 0.880 | 4.55 | 11.0 | 41.8140 | 83.6 |  |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 21 L-MeFOSAA | $570>419$ | 7.25 e 3 | 8.07e3 | 0.250 | 1.12 | 5.00 | 11.2 | 37.1710 | 92.9 | 2.55 | NO |  |
| 46 | 71 Total N-MeFOSAA | 570. $>419$ | 7.25 e 3 | 8.07 e 3 | 0.250 |  |  | 11.2 | 37.1710 |  |  |  |  |
| 47 | 23 L-EtFOSAA | $584.1>419$ | 6.32 e 3 | 8.92 e 3 | 0.250 | 0.886 | 5.17 | 8.86 | 37.8826 | 94.7 | 1.41 | NO |  |
| 48 | 72 Total N-EtFOSAA | $584.1>419$ | 6.32 e 3 | 8.92 e3 | 0.250 |  |  | 8.86 | 37.8826 |  |  |  |  |
| 49 | 25 PFUdA | $563.0>518.9$ | 2.63 e 4 | 3.63 e4 | 0.250 | 0.907 | 5.18 | 9.07 | 37.6925 | 94.2 | 12.0 | NO |  |
| 50 | $50 \mathrm{~d} 3-\mathrm{N}-\mathrm{MeFOSAA}$ | $573.3>419$ | 8.07e3 | 5.08 e 4 | 0.250 | 0.159 | 5.00 | 1.99 | 32.9258 | 65.9 |  |  |  |
| 51 | $50 \mathrm{~d} 3-\mathrm{N}-\mathrm{MeFOSAA}$ | $573.3>419$ | 8.07e3 | 5.08 e 4 | 0.250 | 0.159 | 5.00 | 1.99 | 32.9258 | 65.9 |  |  |  |
| 52 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 8.92 e 3 | 5.08 e 4 | 0.250 | 0.176 | 5.16 | 2.20 | 33.5297 | 67.1 |  |  |  |
| 53 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 8.92 e 3 | 5.08 e 4 | 0.250 | 0.176 | 5.16 | 2.20 | 33.5297 | 67.1 |  |  |  |
| 54 | 51 13C2-PFUdA | $565>519.8$ | 3.63 e 4 | 5.08 e 4 | 0.250 | 0.716 | 5.18 | 8.95 | 36.4040 | 72.8 |  |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 26 PFDS | $598.8>79.9$ | 3.95 e 3 | 5.83e3 | 0.250 | 0.847 | 5.23 | 8.47 | 36.8219 | 92.1 | 1.56 | NO |  |
| 57 | 27 PFDoA | $612.9>569.0$ | 2.97e4 | 3.66e4 | 0.250 | 1.01 | 5.47 | 10.1 | 36.6332 | 91.6 | 8.44 | NO |  |
| 58 | 29 PFTrDA | $662.9>618.9$ | 3.16 e4 | 3.66 e 4 | 0.250 | 1.08 | 5.73 | 10.8 | 37.5596 | 93.9 | 29.9 | NO |  |
| 59 | 30 PFTeDA | 712.8 > 669.0 | 2.70 e 4 | 2.94 e 4 | 0.250 | 1.15 | 5.96 | 11.5 | 35.9615 | 89.9 | 12.4 | NO |  |
| 60 | $28 \mathrm{~N}-\mathrm{MeFOSA}$ | $512.1>168.9$ | 1.92 e 3 | 1.83 e 1 | 0.250 | 315 | 5.60 | 15700 |  |  | 1.36 | NO |  |
| 61 | 51 13C2-PFUdA | $565>519.8$ | 3.63 e4 | 5.08 e 4 | 0.250 | 0.716 | 5.18 | 8.95 | 36.4040 | 72.8 |  |  |  |
| 62 | 53 13C2-PFDoA | $615.0>569.7$ | 3.66 e4 | 4.72 e 4 | 0.250 | 0.776 | 5.47 | 9.70 | 35.8363 | 71.7 |  |  |  |
| 63 | 53 13C2-PFDoA | $615.0>569.7$ | 3.66 e4 | 4.72 e 4 | 0.250 | 0.776 | 5.47 | 9.70 | 35.8363 | 71.7 |  |  |  |
| 64 | 55 13C2-PFTeDA | $714.8>669.6$ | 2.94 e 4 | 5.08 e 4 | 0.250 | 0.579 | 5.95 | 7.24 | 37.2930 | 74.6 |  |  |  |
| 65 | 54 d3-N-MeFOSA | $515.2>168.9$ | 1.83 e 1 | 5.08 e 4 | 0.250 | 0.0000... | 5.60 | 0.00451 | 0.2840 | 0.0 |  |  |  |
| 66 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 67 | $31 \mathrm{~N}-\mathrm{EtFOSA}$ | $526.1>168.9$ | 2.09 e 3 |  | 0.250 | 0.000 | 6.06 |  |  |  | 1.48 | NO |  |
| 68 | 32 PFHxDA | $813.1>768.6$ | 1.25 e 4 | 9.48 e 3 | 0.250 | 0.657 | 6.32 | 6.57 | 39.1771 | 97.9 | 38.2 | NO |  |
| 69 | 33 PFODA | $913.1>868.8$ | 7.19 e 1 | 9.48 e 3 | 0.250 | 0.00379 | 6.57 | 0.0379 | 0.1341 | 0.3 |  |  |  |
| 70 | 34 N -MeFOSE | $616.1>58.9$ | 3.56 e 3 |  | 0.250 | 0.000 | 6.28 |  |  |  |  |  |  |
| 71 | 35 N -EtFOSE | $630.1>58.9$ | 4.52 e 3 |  | 0.250 | 0.000 | 6.44 |  |  |  |  |  | AD 8/21/2018 |
| 72 | $\frac{56 \text { d5-N-ETFOSA }}{\text { Work Order } 1802055}$ | 531.1>168.9 |  | 5.08 e 4 | 0.250 |  |  |  |  |  |  |  | of 364 |

## Quantify Sample Report

Dataset:
Z:IProjects\PFAS.PRO\Results\180818M2\180818M2-18.qld
Last Altered: Tuesday, August 21, 2018 11:07:02 Pacific Daylight Time Printed: Tuesday, August 21, 2018 11:08:10 Pacific Daylight Time

## Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR



## Dataset: <br> Z:|Projects\PFAS.PRO\Results\180818M2\180818M2-18.qld

Last Altered:
Tuesday, August 21, 2018 11:07:02 Pacific Daylight Time Printed: Tuesday, August 21, 2018 11:08:10 Pacific Daylight Time

## Method: Z:|Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:|Projects\PFAS.PRO\CurveDBIC18_VAL-PFĀ_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

## Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR



13C3-PFBA
F3:MRM of 1 channel,ES-


13C3-PFPeA
F6:MRM of 1 channel,ES-
$266 .>221.8$


PFBS

F7:MRM of 2 channels,ES- | $299.0>79.7$ |
| ---: |
| $1.173 e+005$ |



13C3-PFBS




13C2-4:2 FTS


PFHxA


13C2-PFHxA
F10:MRM of 1 channel,ES-
$315>270$


## Dataset: <br> Z:|Projects\PFAS.PRO\Results\180818M2\180818M2-18.qld

## Last Altered: Tuesday, August 21, 2018 11:07:02 Pacific Daylight Time

 Printed: Tuesday, August 21, 2018 11:08:10 Pacific Daylight Time
## Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR



13C3-PFBS



13C4-PFHpA
F17:MRM of 1 channel,ES 1 channel,ES-
$367.2>321.8$
$6.105 \mathrm{e}+005$


## L-PFHxS



1802-PFHxS



## 6:2 FTS



13C2-6:2 FTS

## Dataset: <br> Z:IProjects\PFAS.PRO\Results\180818M2\180818M2-18.qld

## Last Altered: Tuesday, August 21, 2018 11:07:02 Pacific Daylight Time

 Printed: Tuesday, August 21, 2018 11:08:10 Pacific Daylight Time
## Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR

## L-PFOA




13C2-PFOA



13C8-PFOS
F35:MRM of 1 channel,ES-
$507.0>79.9$
$1.513 \mathrm{e}+005$


## L-PFOS



13C8-PFOS
F35:MRM of 1 channel,ES-
$507.0>79.9$

## Total PFOS



13C8-PFOS
F35:MRM of 1 channel,ES$507.0>79.9$


## Dataset: <br> Z:IProjects\PFAS.PRO\Results\180818M2\180818M2-18.qld

## Last Altered: Tuesday, August 21, 2018 11:07:02 Pacific Daylight Time

 Printed: Tuesday, August 21, 2018 11:08:10 Pacific Daylight Time
## Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR

| PFNA |  |  |
| :---: | :---: | :---: |
|  | F27:MRM of 2 channels,ES- |  |
|  |  | $463.0>418.8$ |
| 100 | PFNA | $8.607 \mathrm{e}+005$ |
|  | 4.46 |  |
|  | 31223.79 |  |
| \% | 3.12 e 4 |  |



13C5-PFNA
F28:MRM of 1 channel,ES-



13C8-PFOSA
F34:MRM of 1 channel,ES 1 channel,ES-
506.1 > 77.7 $1.159 e+005$


PFDA



13C2-PFDA
F38:MRM of 1 channel,ES-
F38:MRM of 1 channel,ES-
$515.1>469.9$
$515.1>469.9$
$9.267 e+005$



## Dataset: <br> Z:IProjects\PFAS.PRO\Results\180818M2\180818M2-18.qld

## Last Altered: Tuesday, August 21, 2018 11:07:02 Pacific Daylight Time

 Printed: Tuesday, August 21, 2018 11:08:10 Pacific Daylight Time
## Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR

\section*{L-MeFOSAA <br> F48:MRM of 2 channels,ES- | $570>419$ |
| ---: |
| $1.562 \mathrm{e}+005$ |}


d3-N-MeFOSAA
F50:MRM of 1 channel,ES-
$573.3>419$ $100 \quad 1.909 \mathrm{e}+005$


## L-EtFOSAA


d5-N-EtFOSAA



d5-N-EtFOSAA
F52:MRM of 1 channel,ES channel,ES-
$589.3>419$
$2.306 e+005$



13C2-PFUdA
F47:MRM of 1 channel,ES$565>519.8$


## Dataset: <br> Z:IProjects\PFAS.PRO\Results\180818M2\180818M2-18.qld

## Last Altered: Tuesday, August 21, 2018 11:07:02 Pacific Daylight Time

 Printed: Tuesday, August 21, 2018 11:08:10 Pacific Daylight Time
## Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR


 $565>519.8$ $9.327 \mathrm{e}+005$
13C2-PFUdA
F47:MRM of 1 channel,ES-


## PFTrDA



13C2-PFDoA



13C2-PFTeDA


## N-MeFOSA


d3-N-MeFOSA
F39:MRM of 1 channel,ES$515.2>168.9$


## Dataset: <br> Z:IProjects\PFAS.PRO\Results\180818M2\180818M2-18.qld

## Last Altered: Tuesday, August 21, 2018 11:07:02 Pacific Daylight Time

 Printed: Tuesday, August 21, 2018 11:08:10 Pacific Daylight Time
## Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR

## N-EtFOSA <br> 


d5-N-ETFOSA



13C2-PFHxDA
F64:MRM of 1 channel,ES1 channel,ES-
$815>769.7$
$2.335 e+005$


PFODA


13C2-PFHxDA


d7-N-MeFOSE
d7-N-M2:MRM of 1 channel,ES
F57:MRM of 1 channel,ES-
$623.1>58.9$


## N-EtFOSE

F58:MRM of | ( channel,ES- |
| ---: |
| $630.1>58.9$ |

## d9-N-EtFOSE



## Quantify Sample Report

## Dataset: <br> Z:IProjects\PFAS.PRO\Results\180818M2\180818M2-18.qld

## Last Altered: Tuesday, August 21, 2018 11:07:02 Pacific Daylight Time

 Printed: Tuesday, August 21, 2018 11:08:10 Pacific Daylight Time
## Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR



13C8-PFOS
F35:MRM of 1 channel,ESF35:MRM of 1 channel,ES-
$507.0>79.9$ $100 \quad \begin{array}{r}1.513 \mathrm{e}+005\end{array}$


13C9-PFNA



13C4-PFOS
F33:MRM of 1 channel ES




13C8-PFOA
F23:MRM of 1 channel,ES$420.9>376$ $1.399 \mathrm{e}+006$


## Dataset: Z:IProjects|PFAS.PRO\Results\180818M2\180818M2-22.qld

Last Altered: Tuesday, August 21, 2018 11:22:27 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:22:48 Pacific Daylight Time

Name: 180818M2_22, Date: 18-Aug-2018, Time: 18:49:04, ID: 1802055-01 Clarks-DW-072518 0.24525, Description: Clarks-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ |  | 1.77e4 | 0.245 |  | 1.08 |  |  |  |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 2.53 e 4 | 0.245 |  | 2.04 |  |  |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ |  | 2.87 e 3 | 0.245 |  | 2.33 |  |  |  |  |  |  |
| 4 | 5 PFHxA | $313>269$ |  | 1.55 e 4 | 0.245 |  | 2.86 |  |  |  |  |  |  |
| 5 | 7 PFHpA | 363.0 > 318.9 |  | 2.33 e 4 | 0.245 |  | 3.48 |  |  |  |  |  |  |
| 6 | $3613 C 3-P F B A$ | $216.1>171.8$ | 1.77 e 4 | 2.36 e 4 | 0.245 | 0.749 | 1.16 | 1.08 | 9.37 | 46.4654 | 91.2 |  |  |
| 7 | 37 13C3-PFPeA | 266. > 221.8 | 2.53 e 4 | 4.22 e 4 | 0.245 | 0.599 | 2.14 | 2.04 | 7.49 | 62.8632 | 123.3 |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 2.87 e 3 | 4.22 e 4 | 0.245 | 0.0680 | 2.44 | 2.33 | 0.850 | 68.9402 | 135.3 |  |  |
| 9 | 40 13C2-PFHxA | $315>270$ | 1.55 e 4 | 4.22 e 4 | 0.245 | 0.920 | 2.95 | 2.86 | 4.60 | 19.2378 | 94.4 |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.33 e 4 | 4.22e4 | 0.245 | 0.552 | 3.56 | 3.48 | 6.89 | 45.9264 | 90.1 |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 6.09 e 0 | 2.37 e 3 | 0.245 | 0.000 | 3.51 | 3.63 | 0.0321 | 0.1329 |  | 0.675 | YES |
| 13 | 68 Total PFHxS | $398.9>79.6$ | 6.09 e 0 | 2.37 e 3 | 0.245 |  | 3.65 |  | 0.0321 | 0.1329 |  |  |  |
| 14 | 11 L-PFOA | 412.9 > 368.9 | 2.86 e 2 | 3.58e4 | 0.245 | 0.000 | 4.00 | 4.01 | 0.100 | 0.2682 |  | 2.453 | NO |
| 15 | 69 Total PFOA | $412.9>368.9$ | 2.86 e 2 | 3.58 e 4 | 0.245 |  | 4.48 |  | 0.100 | 0.2682 |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ |  | 4.38 e 3 | 0.245 |  | 4.60 |  |  |  |  |  |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.37 e 3 | 5.34 e 3 | 0.245 | 0.444 | 3.72 | 3.63 | 5.54 | 46.7735 | 91.8 |  |  |
| 18 | 42 1802-PFHxS | 403.0 > 102.6 | 2.37 e 3 | 5.34 e 3 | 0.245 | 0.444 | 3.72 | 3.63 | 5.54 | 46.7735 | 91.8 |  |  |
| 19 | 44 13C2-PFOA | 414.9 > 369.7 | 3.58 e 4 | 4.79 e 4 | 0.245 | 0.747 | 4.09 | 4.01 | 9.33 | 46.3608 | 91.0 |  |  |
| 20 | 44 13C2-PFOA | 414.9 > 369.7 | 3.58 e 4 | 4.79 e 4 | 0.245 | 0.747 | 4.09 | 4.01 | 9.33 | 46.3608 | 91.0 |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 4.38 e3 | 4.87e4 | 0.245 | 0.0900 | 4.60 | 4.51 | 1.12 | 26.1057 | 51.2 |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | $463.0>418.8$ |  | 3.73 e4 | 0.245 |  | 4.54 |  |  |  |  |  |  |
| 24 | 16 L-PFOS | $498.9>79.9$ | 3.81 eO | 5.91 e 3 | 0.245 | 0.000 | 4.63 | 4.44 | 0.00806 | 0.1451 |  | 1.263 | NO |
| 25 | 70 Total PFOS | 498.9 > 79.9 | 3.81 eO | 5.91 e3 | 0.245 |  | 4.60 |  | 0.00806 | 0.1451 |  |  |  |
| 26 | 18 PFDA | $513>468.8$ | 6.19 e 1 | 3.23 e 4 | 0.245 | 0.000 | 4.92 | 4.85 | 0.0240 | 0.1159 |  | 16.294 | YES |
| 27 | 25 PFUdA | $563.0>518.9$ | 1.16 e 2 | 3.61e4 | 0.245 | 0.000 | 5.25 | 5.19 | 0.0400 | 0.0758 |  | 111.357 | YES |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.73 e 4 | 4.21 e 4 | 0.245 | 0.885 | 4.54 | 4.46 | 11.1 | 46.3422 | 90.9 |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 5.91 e 3 | 6.10 e 3 | 0.245 | 0.970 | 4.63 | 4.55 | 12.1 | 46.9714 | 92.2 |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 5.91 e 3 | 6.10 e 3 | 0.245 | 0.970 | 4.63 | 4.55 | 12.1 | 46.9714 | 92.2 |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.23 e 4 | 4.38 e 4 | 0.245 | 0.736 | 4.92 | 4.84 | 9.20 | 39.2043 | 76.9 |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 3.61 e 4 | 4.87e4 | 0.245 | 0.743 | 5.25 | 5.18 | 9.28 | 38.5041 | 75.5 |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ |  | 8.28 e 3 | 0.245 |  | 4.98 |  |  |  |  |  |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00 e 0 | 8.28 e 3 | 0.245 |  | 5.07 |  | 0.000 |  |  |  |  |
| 36 | 23 L-EtFOSAA | 584.1>419 |  | 9.52 e 3 | 0.245 |  | 5.24 |  |  |  |  |  |  |

Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-22.qld
Last Altered: Tuesday, August 21, 2018 11:22:27 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 11:22:48 Pacific Daylight Time

Name: 180818M2_22, Date: 18-Aug-2018, Time: 18:49:04, ID: 1802055-01 Clarks-DW-072518 0.24525, Description: Clarks-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 9.52 e 3 | 0.245 |  | 5.23 |  | 0.000 |  |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ |  | 5.91 e 3 | 0.245 |  | 5.30 |  |  |  |  |  |  |
| 39 | 50 d3-N-MeFOSAA | $573.3>419$ | 8.28 e 3 | 4.87 e 4 | 0.245 | 0.170 | 5.08 | 5.00 | 2.13 | 35.9297 | 70.5 |  |  |
| 40 | 50 d3-N-MeFOSAA | $573.3>419$ | 8.28 e 3 | 4.87 e 4 | 0.245 | 0.170 | 5.08 | 5.00 | 2.13 | 35.9297 | 70.5 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 9.52 e 3 | 4.87 e 4 | 0.245 | 0.196 | 5.23 | 5.16 | 2.44 | 38.0499 | 74.7 |  |  |
| 42 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 9.52 e 3 | 4.87 e 4 | 0.245 | 0.196 | 5.23 | 5.16 | 2.44 | 38.0499 | 74.7 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 3.61 e 4 | 4.87 e 4 | 0.245 | 0.743 | 5.25 | 5.18 | 9.28 | 38.5041 | 75.5 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ |  | 3.61 e 4 | 0.245 |  | 5.54 |  |  |  |  |  |  |
| 46 | 29 PFTrDA | $662.9>618.9$ | 2.45 e 1 | 3.61 e 4 | 0.245 | 0.000 | 5.79 | 5.73 | 0.00849 | 0.1036 |  | 23.966 | NO |
| 47 | 30 PFTeDA | $712.8>669.0$ | 4.14 e 1 | 2.78 e 4 | 0.245 | 0.000 | 6.01 | 5.95 | 0.0186 | 0.1069 |  | 5.255 | YES |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.245 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. > 172 | 2.36 e 4 | 2.36 e 4 | 0.245 | 1.00 | 1.15 | 1.08 | 12.5 | 50.9684 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 3.61 e 4 | 4.38 e 4 | 0.245 | 0.824 | 5.54 | 5.47 | 10.3 | 38.7811 | 76.1 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 3.61 e 4 | 4.38 e 4 | 0.245 | 0.824 | 5.54 | 5.47 | 10.3 | 38.7811 | 76.1 |  |  |
| 52 | 55 13C2-PFTeDA | $714.8>669.6$ | 2.78 e 4 | 4.87 e 4 | 0.245 | 0.572 | 6.01 | 5.95 | 7.15 | 37.5161 | 73.6 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 5.91 e 3 | 6.10 e 3 | 0.245 | 0.970 | 4.63 | 4.55 | 12.1 | 46.9714 | 92.2 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 5.34 e 3 | 5.34 e 3 | 0.245 | 1.00 | 3.72 | 3.63 | 12.5 | 50.9684 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 4.38 e 4 | 4.38 e 4 | 0.245 | 1.00 | 4.92 | 4.84 | 12.5 | 50.9684 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 4.87 e 4 | 4.87 e 4 | 0.245 | 1.00 | 5.25 | 5.18 | 12.5 | 50.9684 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 6.10 e 3 | 6.10 e 3 | 0.245 | 1.00 | 4.63 | 4.55 | 12.5 | 50.9684 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | $472.2>426.9$ | 4.21 e 4 | 4.21 e 4 | 0.245 | 1.00 | 4.54 | 4.46 | 12.5 | 50.9684 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.22 e 4 | 4.22 e 4 | 0.245 | 1.00 | 2.95 | 2.86 | 12.5 | 50.9684 | 100.0 |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-22.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:22:27 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:22:48 Pacific Daylight Time |

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_22, Date: 18-Aug-2018, Time: 18:49:04, ID: 1802055-01 Clarks-DW-072518 0.24525, Description: Clarks-DW-072518



13C3-PFBA
F3:MRM of 1 channel,ES-
$216.1>171.8$
$3.046 \mathrm{e}+005$




## PFBS



## 13C3-PFBS




## 13C2-PFHxA




## 13C4-PFHpA



Dataset: Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-22.qld
Last Altered: Tuesday, August 21, 2018 11:22:27 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 11:22:48 Pacific Daylight Time

## Name: 180818M2_22, Date: 18-Aug-2018, Time: 18:49:04, ID: 1802055-01 Clarks-DW-072518 0.24525, Description: Clarks-DW-072518

## L-PFHxS

F18:MRM of 2 channels, ES-



## 1802-PFHxS





## 1802-PFHxS



L-PFOA


13C2-PFOA




## 13C2-PFOA



PFOSA
$\begin{array}{r}\text { F30:MRM of } 2 \text { channels,ES- } \\ 498>77.9 \\ 1.000 \mathrm{e}-003 \\ \hline 100 \\ \hline\end{array}$


## 13C8-PFOSA

F34:MRM of 1 channel,ES $506.1>77.7$


## Dataset: Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-22.qld

Last Altered: Tuesday, August 21, 2018 11:22:27 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 11:22:48 Pacific Daylight Time

Name: 180818M2_22, Date: 18-Aug-2018, Time: 18:49:04, ID: 1802055-01 Clarks-DW-072518 0.24525, Description: Clarks-DW-072518



## 13C5-PFNA




## 13C8-PFOS



## Total PFOS

| Total PFOS |  |  |  |
| :---: | :---: | :---: | :---: |
| F32:MRM of 2 channels,ES- |  |  |  |
|  |  |  | 498.9 > 79.9 |
| $100 \mathrm{~L}-\mathrm{PFOS} \quad 1.465 \mathrm{e}+002$ |  |  |  |
| $100-4.44$ |  |  |  |
|  | 3.81 e 0 |  |  |
| \%-146 4.57 |  |  |  |
| \%- MM 4.57 |  |  |  |
|  | 146.00 | , |  |



13C8-PFOS




## 13C2-PFDA




## 13C2-PFUdA

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-22.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:22:27 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:22:48 Pacific Daylight Time |

Name: 180818M2_22, Date: 18-Aug-2018, Time: 18:49:04, ID: 1802055-01 Clarks-DW-072518 0.24525, Description: Clarks-DW-072518

## L-MeFOSAA

F48:MRM of 2 channels,ES-


F48:MRM of 2 channels,ES-

d3-N-MeFOSAA



F48:MRM of 2 channels,ES




d5-N-EtFOSAA



F51:MRM of 2 channels,ES$584.1>526$ $1.000 \mathrm{e}-003$


## d5-N-EtFOSAA

F52:MRM of 1 channel,ES$589.3>419$ $2.425 \mathrm{e}+005$


PFDS


13C2-PFUdA
F47:MRM of 1 channel,ES $565>519.8$

Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-22.qld
Last Altered: Tuesday, August 21, 2018 11:22:27 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 11:22:48 Pacific Daylight Time

Name: 180818M2_22, Date: 18-Aug-2018, Time: 18:49:04, ID: 1802055-01 Clarks-DW-072518 0.24525, Description: Clarks-DW-072518


## 13C2-PFDoA







## 13C2-PFTeDA




## 13C8-PFOS



13C4-PFBA



## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-22.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Tuesday, August 21, 2018 11:22:27 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:22:48 Pacific Daylight Time |

Name: 180818M2_22, Date: 18-Aug-2018, Time: 18:49:04, ID: 1802055-01 Clarks-DW-072518 0.24525, Description: Clarks-DW-072518

| 13C6-PFDA |
| :---: |
| F40:MRM of1 channel,ES- <br> $519.1>473.7$ <br> $1.194 \mathrm{e}+006$ |
| 100 |

13C7-PFUdA
F49:MRM of 1 channel,ES $570.1>524.8$

13C4-PFOS


13C5-PFHxA
F11:MRM of 1 channel,ES$318>272.9$ $9.997 \mathrm{e}+005$

## Dataset: Z:|Projects\PFAS.PRO\Results\180818M2\180818M2-24.qld

Last Altered: Tuesday, August 21, 2018 11:28:50 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:29:06 Pacific Daylight Time

Name: 180818M2_24, Date: 18-Aug-2018, Time: 19:10:31, ID: 1802055-03 Shop Pasture-DW-072518 0.24056, Description: Shop Pasture-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ |  | 1.79 e 4 | 0.241 |  | 1.08 |  |  |  |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 2.52 e 4 | 0.241 |  | 2.04 |  |  |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ |  | 3.19 e 3 | 0.241 |  | 2.33 |  |  |  |  |  |  |
| 4 | 5 PFHxA | $313>269$ |  | 1.49 e 4 | 0.241 |  | 2.86 |  |  |  |  |  |  |
| 5 | 7 PFHpA | 363.0 > 318.9 |  | 2.27 e 4 | 0.241 |  | 3.48 |  |  |  |  |  |  |
| 6 | $3613 C 3-P F B A$ | $216.1>171.8$ | 1.79 e 4 | 2.32 e 4 | 0.241 | 0.769 | 1.16 | 1.08 | 9.62 | 48.6426 | 93.6 |  |  |
| 7 | 37 13C3-PFPeA | 266. $>221.8$ | 2.52 e 4 | 4.20 e 4 | 0.241 | 0.601 | 2.14 | 2.04 | 7.51 | 64.2469 | 123.6 |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 3.19 e 3 | 4.20 e 4 | 0.241 | 0.0761 | 2.44 | 2.33 | 0.952 | 78.6682 | 151.4 |  |  |
| 9 | 40 13C2-PFHxA | $315>270$ | 1.49 e 4 | 4.20 e 4 | 0.241 | 0.886 | 2.95 | 2.86 | 4.43 | 18.9040 | 91.0 |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.27 e 4 | 4.20 e 4 | 0.241 | 0.540 | 3.56 | 3.48 | 6.75 | 45.8575 | 88.3 |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 1.68 e 1 | 2.62 e 3 | 0.241 | 0.000 | 3.51 | 3.63 | 0.0803 | 0.2510 |  | 1.393 | NO |
| 13 | 68 Total PFHxS | 398.9 > 79.6 | 1.68 e 1 | 2.62 e 3 | 0.241 |  | 3.65 |  | 0.0803 | 0.2510 |  |  |  |
| 14 | 11 L-PFOA | 412.9 > 368.9 | 3.55 e 2 | 3.58 e 4 | 0.241 | 0.000 | 4.00 | 4.01 | 0.124 | 0.3719 |  | 3.629 | YES |
| 15 | 69 Total PFOA | 412.9 > 368.9 | 3.55 e 2 | 3.58 e 4 | 0.241 |  | 4.48 |  | 0.124 | 0.3719 |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ |  | 3.92 e 3 | 0.241 |  | 4.60 |  |  |  |  |  |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.62 e3 | 5.86e3 | 0.241 | 0.447 | 3.72 | 3.63 | 5.59 | 48.0816 | 92.5 |  |  |
| 18 | 42 1802-PFHxS | $403.0>102.6$ | 2.62 e 3 | 5.86 e 3 | 0.241 | 0.447 | 3.72 | 3.63 | 5.59 | 48.0816 | 92.5 |  |  |
| 19 | 44 13C2-PFOA | 414.9 > 369.7 | 3.58 e 4 | 4.73 e 4 | 0.241 | 0.756 | 4.09 | 4.01 | 9.44 | 47.8319 | 92.1 |  |  |
| 20 | 44 13C2-PFOA | 414.9 > 369.7 | 3.58 e 4 | 4.73 e4 | 0.241 | 0.756 | 4.09 | 4.01 | 9.44 | 47.8319 | 92.1 |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 3.92 e 3 | 4.81 e 4 | 0.241 | 0.0815 | 4.60 | 4.52 | 1.02 | 24.1099 | 46.4 |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | $463.0>418.8$ |  | 3.48 e 4 | 0.241 |  | 4.54 |  |  |  |  |  |  |
| 24 | 16 L-PFOS | $498.9>79.9$ |  | 6.59 e 3 | 0.241 |  | 4.63 |  |  |  |  |  |  |
| 25 | 70 Total PFOS | $498.9>79.9$ | 0.00e0 | 6.59 e 3 | 0.241 |  | 4.60 |  | 0.000 |  |  |  |  |
| 26 | 18 PFDA | $513>468.8$ |  | 3.05 e 4 | 0.241 |  | 4.92 |  |  |  |  |  |  |
| 27 | 25 PFUdA | $563.0>518.9$ |  | 3.48 e 4 | 0.241 |  | 5.25 |  |  |  |  |  |  |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.48 e 4 | 4.28 e 4 | 0.241 | 0.814 | 4.54 | 4.46 | 10.2 | 43.4870 | 83.7 |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 6.59e3 | 6.63 e3 | 0.241 | 0.995 | 4.63 | 4.55 | 12.4 | 49.1410 | 94.6 |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 6.59 e 3 | 6.63 e3 | 0.241 | 0.995 | 4.63 | 4.55 | 12.4 | 49.1410 | 94.6 |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.05 e 4 | 4.55 e 4 | 0.241 | 0.670 | 4.92 | 4.84 | 8.38 | 36.3856 | 70.0 |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 3.48 e 4 | 4.81 e 4 | 0.241 | 0.724 | 5.25 | 5.18 | 9.05 | 38.2747 | 73.7 |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ |  | 8.43 e3 | 0.241 |  | 4.98 |  |  |  |  |  |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00e0 | 8.43 e3 | 0.241 |  | 5.07 |  | 0.000 |  |  |  |  |
| 36 | 23 L-EtFOSAA | $584.1>419$ |  | 9.85 e 3. | 0.241 |  | 5.24 |  |  |  |  |  |  |

## Name: 180818M2_24, Date: 18-Aug-2018, Time: 19:10:31, ID: 1802055-03 Shop Pasture-DW-072518 0.24056, Description: Shop Pasture-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 9.85 e 3 | 0.241 |  | 5.23 |  | 0.000 |  |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ |  | 6.59 e 3 | 0.241 |  | 5.30 |  |  |  |  |  |  |
| 39 | 50 d3-N-MeFOSAA | $573.3>419$ | 8.43 e 3 | 4.81 e 4 | 0.241 | 0.175 | 5.08 | 5.00 | 2.19 | 37.7432 | 72.6 |  |  |
| 40 | 50 d3-N-MeFOSAA | $573.3>419$ | 8.43 e 3 | 4.81 e 4 | 0.241 | 0.175 | 5.08 | 5.00 | 2.19 | 37.7432 | 72.6 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 9.85 e 3 | 4.81 e 4 | 0.241 | 0.205 | 5.23 | 5.16 | 2.56 | 40.6332 | 78.2 |  |  |
| 42 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 9.85 e 3 | 4.81 e 4 | 0.241 | 0.205 | 5.23 | 5.16 | 2.56 | 40.6332 | 78.2 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 3.48 e 4 | 4.81 e 4 | 0.241 | 0.724 | 5.25 | 5.18 | 9.05 | 38.2747 | 73.7 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ |  | 3.83 e 4 | 0.241 |  | 5.54 |  |  |  |  |  |  |
| 46 | 29 PFTrDA | $662.9>618.9$ |  | 3.83 e 4 | 0.241 |  | 5.79 |  |  |  |  |  |  |
| 47 | 30 PFTeDA | $712.8>669.0$ |  | 3.16 e 4 | 0.241 |  | 6.01 |  |  |  |  |  |  |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.241 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. > 172 | 2.32 e 4 | 2.32 e 4 | 0.241 | 1.00 | 1.15 | 1.08 | 12.5 | 51.9621 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 3.83 e 4 | 4.55 e 4 | 0.241 | 0.840 | 5.54 | 5.47 | 10.5 | 40.3162 | 77.6 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 3.83 e 4 | 4.55 e 4 | 0.241 | 0.840 | 5.54 | 5.47 | 10.5 | 40.3162 | 77.6 |  |  |
| 52 | 55 13C2-PFTeDA | $714.8>669.6$ | 3.16 e 4 | 4.81 e 4 | 0.241 | 0.658 | 6.01 | 5.95 | 8.22 | 43.9787 | 84.6 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 6.59e3 | 6.63 e 3 | 0.241 | 0.995 | 4.63 | 4.55 | 12.4 | 49.1410 | 94.6 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 5.86 e 3 | 5.86 e 3 | 0.241 | 1.00 | 3.72 | 3.63 | 12.5 | 51.9621 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 4.55 e 4 | 4.55 e 4 | 0.241 | 1.00 | 4.92 | 4.84 | 12.5 | 51.9621 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 4.81 e 4 | 4.81 e 4 | 0.241 | 1.00 | 5.25 | 5.18 | 12.5 | 51.9621 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 6.63 e 3 | 6.63 e 3 | 0.241 | 1.00 | 4.63 | 4.55 | 12.5 | 51.9621 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | $472.2>426.9$ | 4.28 e 4 | 4.28 e 4 | 0.241 | 1.00 | 4.54 | 4.46 | 12.5 | 51.9621 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.20 e 4 | 4.20 e 4 | 0.241 | 1.00 | 2.95 | 2.86 | 12.5 | 51.9621 | 100.0 |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-24.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:28:50 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:29:06 Pacific Daylight Time |

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFĀ_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_24, Date: 18-Aug-2018, Time: 19:10:31, ID: 1802055-03 Shop Pasture-DW-072518 0.24056, Description: Shop Pasture-DW-072518

PFBA


## 13C3-PFBA

F3:MRM of 1 channel,ES-
$216.1>171.8$



13C3-PFPeA



## 13C3-PFBS




F8.MRM of 1 channel,ES-
$302 .>98.8$
$8.996 \mathrm{e}+004$

## 13C2-PFHxA




## 13C4-PFHpA F17:MRM of 1 channel,ES $367.2>321.8$



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-24.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:28:50 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:29:06 Pacific Daylight Time |

Name: 180818M2_24, Date: 18-Aug-2018, Time: 19:10:31, ID: 1802055-03 Shop Pasture-DW-072518 0.24056, Description: Shop Pasture-DW-072518

## L-PFHxS

| F18:MRM of 2 channels,ES- |  |  |
| :---: | :---: | :---: |
|  |  | 398.9 > 79.6 |
| 100 | L-PFHxS | $6.777 \mathrm{e}+002$ |
|  | 3.63 |  |
|  | 1.68e1 |  |
| \% - | 676 |  |
|  | bb |  |
|  | 676.00 |  |
|  |  | TTT min |



## 1802-PFHxS



## Total PFHxS

F18:MRM of 2 channels,ES

| F18:MRM of 2 channels,ES- |  |  |
| :---: | :---: | :---: |
| 100 |  | $\begin{array}{r} 398.9>79.6 \\ 6.777 \mathrm{e}+002 \end{array}$ |
|  | L-PFHxS |  |
|  | 3.63 |  |
|  | 1.68 e 1 |  |
| \%- | 676 |  |
|  | bb |  |
|  | 676.00 |  |
|  |  |  |



## 1802-PFHxS



L-PFOA F21:MRM of 2 channels,ES- $\begin{array}{r}412.9>368.9 \\ 9.471 \mathrm{e}+003\end{array}$


13C2-PFOA



## 13C2-PFOA



PFOSA

| F30:MRM of 2 channels, ES- |
| ---: |
| $498>77.9$ |
|  |



## 13C8-PFOSA

F34:MRM of 1 channel,ES $506.1>77.7$

Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-24.qld
Last Altered: Tuesday, August 21, 2018 11:28:50 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:29:06 Pacific Daylight Time

## Name: 180818M2_24, Date: 18-Aug-2018, Time: 19:10:31, ID: 1802055-03 Shop Pasture-DW-072518 0.24056, Description: Shop Pasture-DW-072518

## PFNA



## 13C5-PFNA




## 13C8-PFOS




13C8-PFOS



## 13C2-PFDA




| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-24.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:28:50 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:29:06 Pacific Daylight Time |

Name: 180818M2_24, Date: 18-Aug-2018, Time: 19:10:31, ID: 1802055-03 Shop Pasture-DW-072518 0.24056, Description: Shop Pasture-DW-072518

## L-MeFOSAA

F48:MRM of 2 channels,ES-



## d3-N-MeFOSAA





d5-N-EtFOSAA



## d5-N-EtFOSAA



Dataset:
Z:|Projects\PFAS.PRO\Results\180818M2\180818M2-24.qld
Last Altered: Tuesday, August 21, 2018 11:28:50 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:29:06 Pacific Daylight Time

Name: 180818M2_24, Date: 18-Aug-2018, Time: 19:10:31, ID: 1802055-03 Shop Pasture-DW-072518 0.24056, Description: Shop Pasture-DW-072518


F54:MRM of 4 channels,ES$612.9>318.8$


## 13C2-PFDoA

F55:MRM of 2 channels,ES$615.0>569.7$ $9.047 e+005$



F60:MRM of 2 channels,ES 662.9 > 319





13C2-PFTeDA
F62:MRM of 2 channels,ES$714.8>669.6$ $7.493 \mathrm{e}+005$


TCDA


F31:MRM of 3 channels,ES-


## 13C8-PFOS



13C4-PFBA



Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-24.qld
Last Altered: Tuesday, August 21, 2018 11:28:50 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:29:06 Pacific Daylight Time

Name: 180818M2_24, Date: 18-Aug-2018, Time: 19:10:31, ID: 1802055-03 Shop Pasture-DW-072518 0.24056, Description: Shop Pasture-DW-072518


## 13C4-PFOS <br> F33:MRM of 1 channel,ES$503>79.9$ $1.730 \mathrm{e}+005$ <br> 




## Dataset: Z:IProjects|PFAS.PRO\Results\180818M2\180818M2-26.qld

Last Altered: Tuesday, August 21, 2018 11:33:42 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:33:58 Pacific Daylight Time

Name: 180818M2_26, Date: 18-Aug-2018, Time: 19:31:57, ID: 1802055-05 Welder HQ-DW-072518 0.24023, Description: Welder HQ-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | 213.0 > 168.8 | 1.12 e 2 | 1.86e4 | 0.240 | 0.000 | 1.08 | 1.08 | 0.0751 | 0.3807 |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 2.60 e 4 | 0.240 |  | 2.04 |  |  |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ |  | 3.29e3 | 0.240 |  | 2.33 |  |  |  |  |  |  |
| 4 | 5 PFHxA | $313>269$ |  | 1.58 e 4 | 0.240 |  | 2.86 |  |  |  |  |  |  |
| 5 | 7 PFHpA | $363.0>318.9$ |  | 2.38 e 4 | 0.240 |  | 3.48 |  |  |  |  |  |  |
| 6 | 36 13C3-PFBA | $216.1>171.8$ | 1.86 e 4 | 2.42 e 4 | 0.240 | 0.771 | 1.16 | 1.08 | 9.64 | 48.8016 | 93.8 |  |  |
| 7 | 37 13C3-PFPeA | 266. $>221.8$ | 2.60 e 4 | 4.36 e 4 | 0.240 | 0.596 | 2.14 | 2.04 | 7.45 | 63.8290 | 122.7 |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 3.29 e 3 | 4.36 e 4 | 0.240 | 0.0755 | 2.44 | 2.33 | 0.943 | 78.0701 | 150.0 |  |  |
| 9 | 40 13C2-PFHxA | $315>270$ | 1.58 e 4 | 4.36 e 4 | 0.240 | 0.905 | 2.95 | 2.86 | 4.52 | 19.3196 | 92.8 |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.38 e 4 | 4.36 e 4 | 0.240 | 0.545 | 3.56 | 3.48 | 6.82 | 46.3583 | 89.1 |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 7.11e0 | 2.70 e3 | 0.240 | 0.000 | 3.51 | 3.63 | 0.0330 | 0.1377 |  | 0.661 | YES |
| 13 | 68 Total PFHxS | 398.9 > 79.6 | $7.11 \mathrm{e0}$ | 2.70 e3 | 0.240 |  | 3.65 |  | 0.0330 | 0.1377 |  |  |  |
| 14 | 11 L-PFOA | 412.9 > 368.9 | 3.00 e 2 | 3.51 e 4 | 0.240 | 0.000 | 4.00 | 4.01 | 0.107 | 0.3022 |  | 2.479 | NO |
| 15 | 69 Total PFOA | 412.9 > 368.9 | 3.00 e 2 | 3.51 e 4 | 0.240 |  | 4.48 |  | 0.107 | 0.3022 |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ |  | 4.46 e 3 | 0.240 |  | 4.60 |  |  |  |  |  |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.70 e3 | 6.04 e 3 | 0.240 | 0.446 | 3.72 | 3.64 | 5.58 | 48.0473 | 92.3 |  |  |
| 18 | 42 1802-PFHxS | 403.0 > 102.6 | 2.70 e3 | 6.04 e 3 | 0.240 | 0.446 | 3.72 | 3.64 | 5.58 | 48.0473 | 92.3 |  |  |
| 19 | 44 13C2-PFOA | 414.9 > 369.7 | 3.51 e 4 | 5.04 e 4 | 0.240 | 0.697 | 4.09 | 4.01 | 8.71 | 44.1857 | 84.9 |  |  |
| 20 | 44 13C2-PFOA | 414.9 > 369.7 | 3.51 e 4 | 5.04 e 4 | 0.240 | 0.697 | 4.09 | 4.01 | 8.71 | 44.1857 | 84.9 |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 4.46 e 3 | 5.05 e 4 | 0.240 | 0.0883 | 4.60 | 4.52 | 1.10 | 26.1595 | 50.3 |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | $463.0>418.8$ |  | 3.80 e 4 | 0.240 |  | 4.54 |  |  |  |  |  |  |
| 24 | 16 L-PFOS | $498.9>79.9$ |  | 7.05 e 3 | 0.240 |  | 4.63 |  |  |  |  |  |  |
| 25 | 70 Total PFOS | $498.9>79.9$ | 0.00e0 | 7.05 e 3 | 0.240 |  | 4.60 |  | 0.000 |  |  |  |  |
| 26 | 18 PFDA | $513>468.8$ |  | 3.27 e 4 | 0.240 |  | 4.92 |  |  |  |  |  |  |
| 27 | 25 PFUdA | $563.0>518.9$ |  | 3.76 e 4 | 0.240 |  | 5.25 |  |  |  |  |  |  |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.80 e4 | 4.64 e 4 | 0.240 | 0.819 | 4.54 | 4.46 | 10.2 | 43.8070 | 84.2 |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 7.05 e 3 | 7.03 e 3 | 0.240 | 1.00 | 4.63 | 4.55 | 12.5 | 49.6175 | 95.4 |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 7.05 e 3 | 7.03 e 3 | 0.240 | 1.00 | 4.63 | 4.55 | 12.5 | 49.6175 | 95.4 |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.27 e 4 | 4.47 e 4 | 0.240 | 0.731 | 4.92 | 4.85 | 9.14 | 39.7243 | 76.3 |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 3.76 e4 | 5.05 e 4 | 0.240 | 0.745 | 5.25 | 5.18 | 9.31 | 39.4285 | 75.8 |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ |  | 8.58 e 3 | 0.240 |  | 4.98 |  |  |  |  |  |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00 e 0 | 8.58 e 3 | 0.240 |  | 5.07 |  | 0.000 |  |  |  |  |
| 36 | 23 L-EtFOSAA | 584.1>419 |  | 1.07 e 4 | 0.240 |  | 5.24 |  |  |  |  |  |  |

Name: 180818M2_26, Date: 18-Aug-2018, Time: 19:31:57, ID: 1802055-05 Welder HQ-DW-072518 0.24023, Description: Welder HQ-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 1.07 e 4 | 0.240 |  | 5.23 |  | 0.000 |  |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ |  | 7.05 e 3 | 0.240 |  | 5.30 |  |  |  |  |  |  |
| 39 | 50 d3-N-MeFOSAA | $573.3>419$ | 8.58 e 3 | 5.05 e 4 | 0.240 | 0.170 | 5.08 | 5.00 | 2.12 | 36.6289 | 70.4 |  |  |
| 40 | 50 d3-N-MeFOSAA | $573.3>419$ | 8.58 e 3 | 5.05 e 4 | 0.240 | 0.170 | 5.08 | 5.00 | 2.12 | 36.6289 | 70.4 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 1.07 e 4 | 5.05 e 4 | 0.240 | 0.212 | 5.23 | 5.16 | 2.65 | 42.0712 | 80.9 |  |  |
| 42 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 1.07 e 4 | 5.05 e 4 | 0.240 | 0.212 | 5.23 | 5.16 | 2.65 | 42.0712 | 80.9 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 3.76 e 4 | 5.05 e 4 | 0.240 | 0.745 | 5.25 | 5.18 | 9.31 | 39.4285 | 75.8 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ |  | 3.85 e 4 | 0.240 |  | 5.54 |  |  |  |  |  |  |
| 46 | 29 PFTrDA | $662.9>618.9$ |  | 3.85 e 4 | 0.240 |  | 5.79 |  |  |  |  |  |  |
| 47 | 30 PFTeDA | $712.8>669.0$ | 3.62 e 1 | 2.99 e 4 | 0.240 | 0.000 | 6.01 | 5.96 | 0.0151 | 0.0978 |  | 9.877 | NO |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.240 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. > 172 | 2.42 e 4 | 2.42 e 4 | 0.240 | 1.00 | 1.15 | 1.08 | 12.5 | 52.0335 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 3.85 e 4 | 4.47 e 4 | 0.240 | 0.861 | 5.54 | 5.47 | 10.8 | 41.3955 | 79.6 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 3.85 e 4 | 4.47 e 4 | 0.240 | 0.861 | 5.54 | 5.47 | 10.8 | 41.3955 | 79.6 |  |  |
| 52 | 55 13C2-PFTeDA | $714.8>669.6$ | 2.99 e 4 | 5.05 e 4 | 0.240 | 0.592 | 6.01 | 5.96 | 7.40 | 39.6467 | 76.2 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 7.05e3 | 7.03 e 3 | 0.240 | 1.00 | 4.63 | 4.55 | 12.5 | 49.6175 | 95.4 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 6.04 e 3 | 6.04 e 3 | 0.240 | 1.00 | 3.72 | 3.64 | 12.5 | 52.0335 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 4.47 e 4 | 4.47 e 4 | 0.240 | 1.00 | 4.92 | 4.85 | 12.5 | 52.0335 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 5.05 e 4 | 5.05 e 4 | 0.240 | 1.00 | 5.25 | 5.18 | 12.5 | 52.0335 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 7.03e3 | 7.03 e 3 | 0.240 | 1.00 | 4.63 | 4.55 | 12.5 | 52.0335 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | $472.2>426.9$ | 4.64 e 4 | 4.64 e 4 | 0.240 | 1.00 | 4.54 | 4.46 | 12.5 | 52.0335 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.36 e 4 | 4.36 e 4 | 0.240 | 1.00 | 2.95 | 2.86 | 12.5 | 52.0335 | 100.0 |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-26.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:33:42 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:33:58 Pacific Daylight Time |

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_26, Date: 18-Aug-2018, Time: 19:31:57, ID: 1802055-05 Welder HQ-DW-072518 0.24023, Description: Welder HQ-DW-072518


 $216.1>171.8$







13C3-PFBS





## 13C4-PFHpA



## Dataset: Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-26.qld

Last Altered: Tuesday, August 21, 2018 11:33:42 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:33:58 Pacific Daylight Time

## Name: 180818M2_26, Date: 18-Aug-2018, Time: 19:31:57, ID: 1802055-05 Welder HQ-DW-072518 0.24023, Description: Welder HQ-DW-072518

## L-PFHxS

F18:MRM of 2 channels,ES-



## 1802-PFHxS



## Total PFHxS



## 1802-PFHxS



## L-PFOA

F21:MRM of 2 channels,ES- $\begin{array}{r}412.9>368.9 \\ 1.140 \mathrm{e}+004\end{array}$


13C2-PFOA




## 13C2-PFOA



PFOSA
$\begin{array}{r}\text { F30:MRM of } 2 \text { channels,ES- } \\ 498>77.9 \\ 1.000 \mathrm{e}-003 \\ \hline 100\end{array}$


## 13C8-PFOSA

F34:MRM of 1 channel,ES $506.1>77.7$

Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-26.qld
Last Altered: Tuesday, August 21, 2018 11:33:42 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:33:58 Pacific Daylight Time

Name: 180818M2_26, Date: 18-Aug-2018, Time: 19:31:57, ID: 1802055-05 Welder HQ-DW-072518 0.24023, Description: Welder HQ-DW-072518

## PFNA <br> 



## 13C5-PFNA





## 13C8-PFOS





13C8-PFOS




## 13C2-PFDA




| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-26.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:33:42 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:33:58 Pacific Daylight Time |

Name: 180818M2_26, Date: 18-Aug-2018, Time: 19:31:57, ID: 1802055-05 Welder HQ-DW-072518 0.24023, Description: Welder HQ-DW-072518

## L-MeFOSAA



F48:MRM of 2 channels,ES570. > 512
 d3-N-MeFOSAA






d5-N-EtFOSAA



## d5-N-EtFOSAA





13C2-PFUdA
F47:MRM of 1 channel,ES$565>519.8$


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-26.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:33:42 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:33:58 Pacific Daylight Time |

Name: 180818M2_26, Date: 18-Aug-2018, Time: 19:31:57, ID: 1802055-05 Welder HQ-DW-072518 0.24023, Description: Welder HQ-DW-072518

## PFDoA <br> 



## 13C2-PFDoA

F55:MRM of 2 channels,ES$615.0>569.7$





13C2-PFTeDA
F62:MRM of 2 channels,ES-
$714.8>669.6$ $7.069 \mathrm{e}+005$


## TCDA

F31:MRM of 3 channels,ES-


F31:MRM of 3 channels,ES498.3 > 123.9


## 13C8-PFOS



13C4-PFBA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-26.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:33:42 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:33:58 Pacific Daylight Time |

Name: 180818M2_26, Date: 18-Aug-2018, Time: 19:31:57, ID: 1802055-05 Welder HQ-DW-072518 0.24023, Description: Welder HQ-DW-072518

13C6-PFDA
F40:MRM of 1 channel,ES-
F40:MRM of 1 channel,ES-
$519.1>473.7$
$1.177 \mathrm{e}+006$


13C4-PFOS


13C5-PFHxA
F11:MRM of 1 channel,ES$318>272.9$ $1.038 \mathrm{e}+006$

## Dataset: Z:IProjects|PFAS.PRO\Results\180818M2\180818M2-28.qld

Last Altered: Tuesday, August 21, 2018 11:39:18 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:39:35 Pacific Daylight Time

Name: 180818M2_28, Date: 18-Aug-2018, Time: 19:53:25, ID: 1802055-07 Lupes House-DW-072518 0.23934, Description: Lupes House-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ | 8.96e1 | 1.70e4 | 0.239 | 0.000 | 1.08 | 1.08 | 0.0658 | 0.3485 |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 2.42 e 4 | 0.239 |  | 2.04 |  |  |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ |  | 2.81 e3 | 0.239 |  | 2.34 |  |  |  |  |  |  |
| 4 | 5 PFHxA | $313>269$ | 5.82 e 1 | 1.49 e 4 | 0.239 | 0.000 | 2.86 | 2.85 | 0.0196 | 0.0600 |  | 4.059 | YES |
| 5 | 7 PFHpA | $363.0>318.9$ |  | 2.15 e4 | 0.239 |  | 3.48 |  |  |  |  |  |  |
| 6 | 36 13C3-PFBA | $216.1>171.8$ | 1.70 e 4 | 2.16 e 4 | 0.239 | 0.786 | 1.16 | 1.08 | 9.83 | 49.9670 | 95.7 |  |  |
| 7 | 37 13C3-PFPeA | 266. > 221.8 | 2.42 e 4 | 4.09 e 4 | 0.239 | 0.591 | 2.14 | 2.04 | 7.38 | 63.4882 | 121.6 |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 2.81 e 3 | 4.09 e 4 | 0.239 | 0.0686 | 2.44 | 2.34 | 0.857 | 71.1928 | 136.3 |  |  |
| 9 | 40 13C2-PFHxA | $315>270$ | 1.49 e 4 | 4.09 e 4 | 0.239 | 0.908 | 2.95 | 2.86 | 4.54 | 19.4574 | 93.1 |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.15 e 4 | 4.09 e 4 | 0.239 | 0.526 | 3.56 | 3.48 | 6.57 | 44.8571 | 85.9 |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 1.69 e 1 | 2.26 e 3 | 0.239 | 0.000 | 3.51 | 3.64 | 0.0937 | 0.2845 |  | 3.185 | YES |
| 13 | 68 Total PFHxS | $398.9>79.6$ | 1.69 e 1 | $2.26 e 3$ | 0.239 |  | 3.65 |  | 0.0937 | 0.2845 |  |  |  |
| 14 | 11 L-PFOA | 412.9 > 368.9 | 2.83 e 2 | 3.37 e 4 | 0.239 | 0.000 | 4.00 | 4.01 | 0.105 | 0.2942 |  | 2.697 | NO |
| 15 | 69 Total PFOA | 412.9 > 368.9 | 2.83 e 2 | 3.37 e 4 | 0.239 |  | 4.48 |  | 0.105 | 0.2942 |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ |  | 3.70 e3 | 0.239 |  | 4.60 |  |  |  |  |  |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.26 e 3 | 5.04 e 3 | 0.239 | 0.448 | 3.72 | 3.64 | 5.60 | 48.4096 | 92.7 |  |  |
| 18 | 42 1802-PFHxS | 403.0 > 102.6 | 2.26 e 3 | 5.04 e 3 | 0.239 | 0.448 | 3.72 | 3.64 | 5.60 | 48.4096 | 92.7 |  |  |
| 19 | 44 13C2-PFOA | 414.9 > 369.7 | 3.37 e 4 | 4.50 e 4 | 0.239 | 0.749 | 4.09 | 4.01 | 9.37 | 47.6867 | 91.3 |  |  |
| 20 | 44 13C2-PFOA | 414.9 > 369.7 | 3.37 e 4 | 4.50 e 4 | 0.239 | 0.749 | 4.09 | 4.01 | 9.37 | 47.6867 | 91.3 |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 3.70 e 3 | 4.49 e 4 | 0.239 | 0.0824 | 4.60 | 4.52 | 1.03 | 24.4995 | 46.9 |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | 463.0 > 418.8 | 5.01 e 1 | 3.50 e 4 | 0.239 | 0.000 | 4.54 | 4.46 | 0.0179 | 0.1741 |  | 5.648 | NO |
| 24 | 16 L-PFOS | $498.9>79.9$ | 2.12 e 0 | 5.66 e 3 | 0.239 | 0.000 | 4.63 | 4.44 | 0.00469 | 0.1334 |  | 1.318 | NO |
| 25 | 70 Total PFOS | $498.9>79.9$ | 2.12 e 0 | 5.66 e 3 | 0.239 |  | 4.60 |  | 0.00469 | 0.1334 |  |  |  |
| 26 | 18 PFDA | $513>468.8$ | 7.14 e 1 | 3.03 e 4 | 0.239 | 0.000 | 4.92 | 4.85 | 0.0295 | 0.1374 |  | 11.995 | YES |
| 27 | 25 PFUdA | $563.0>518.9$ | 1.02 e 2 | 3.33 e 4 | 0.239 | 0.000 | 5.25 | 5.18 | 0.0385 | 0.0710 |  | 28.716 | YES |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.50 e 4 | 4.05 e 4 | 0.239 | 0.864 | 4.54 | 4.46 | 10.8 | 46.3927 | 88.8 |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 5.66 e 3 | 5.60 e 3 | 0.239 | 1.01 | 4.63 | 4.55 | 12.6 | 50.1252 | 96.0 |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 5.66 e 3 | 5.60 e 3 | 0.239 | 1.01 | 4.63 | 4.55 | 12.6 | 50.1252 | 96.0 |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.03 e 4 | 4.20 e 4 | 0.239 | 0.720 | 4.92 | 4.85 | 9.00 | 39.2650 | 75.2 |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 3.33 e 4 | 4.49e4 | 0.239 | 0.741 | 5.25 | 5.18 | 9.26 | 39.3767 | 75.4 |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ |  | 6.90 e3 | 0.239 |  | 4.98 |  |  |  |  |  |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00 e 0 | 6.90 e3 | 0.239 |  | 5.07 |  | 0.000 |  |  |  |  |
| 36 | 23 L-EtFOSAA | 584.1>419 |  | 8.84e3 | 0.239 |  | 5.24 |  |  |  |  |  |  |

Work Order 1802055

Name: 180818M2_28, Date: 18-Aug-2018, Time: 19:53:25, ID: 1802055-07 Lupes House-DW-072518 0.23934, Description: Lupes House-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 8.84e3 | 0.239 |  | 5.23 |  | 0.000 |  |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ |  | 5.66 e 3 | 0.239 |  | 5.30 |  |  |  |  |  |  |
| 39 | 50 d3-N-MeFOSAA | $573.3>419$ | 6.90 e 3 | 4.49 e 4 | 0.239 | 0.154 | 5.08 | 5.00 | 1.92 | 33.2466 | 63.7 |  |  |
| 40 | 50 d3-N-MeFOSAA | $573.3>419$ | 6.90 e 3 | 4.49 e 4 | 0.239 | 0.154 | 5.08 | 5.00 | 1.92 | 33.2466 | 63.7 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 8.84e3 | 4.49 e 4 | 0.239 | 0.197 | 5.23 | 5.16 | 2.46 | 39.2757 | 75.2 |  |  |
| 42 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 8.84e3 | 4.49 e 4 | 0.239 | 0.197 | 5.23 | 5.16 | 2.46 | 39.2757 | 75.2 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 3.33 e 4 | 4.49 e 4 | 0.239 | 0.741 | 5.25 | 5.18 | 9.26 | 39.3767 | 75.4 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ |  | 3.44 e 4 | 0.239 |  | 5.54 |  |  |  |  |  |  |
| 46 | 29 PFTrDA | $662.9>618.9$ |  | 3.44 e 4 | 0.239 |  | 5.79 |  |  |  |  |  |  |
| 47 | 30 PFTeDA | $712.8>669.0$ | 4.93 e 1 | 2.43 e 4 | 0.239 | 0.000 | 6.01 | 5.96 | 0.0254 | 0.1316 |  | 5.960 | YES |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.239 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. > 172 | 2.16 e 4 | 2.16 e 4 | 0.239 | 1.00 | 1.15 | 1.08 | 12.5 | 52.2270 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 3.44 e 4 | 4.20 e 4 | 0.239 | 0.817 | 5.54 | 5.47 | 10.2 | 39.4275 | 75.5 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 3.44 e 4 | 4.20 e 4 | 0.239 | 0.817 | 5.54 | 5.47 | 10.2 | 39.4275 | 75.5 |  |  |
| 52 | 55 13C2-PFTeDA | $714.8>669.6$ | 2.43 e 4 | 4.49 e 4 | 0.239 | 0.542 | 6.01 | 5.96 | 6.77 | 36.4284 | 69.8 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 5.66 e 3 | 5.60 e 3 | 0.239 | 1.01 | 4.63 | 4.55 | 12.6 | 50.1252 | 96.0 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 5.04 e 3 | 5.04 e 3 | 0.239 | 1.00 | 3.72 | 3.64 | 12.5 | 52.2270 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 4.20 e 4 | 4.20 e 4 | 0.239 | 1.00 | 4.92 | 4.85 | 12.5 | 52.2270 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 4.49 e 4 | 4.49 e 4 | 0.239 | 1.00 | 5.25 | 5.18 | 12.5 | 52.2270 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 5.60 e 3 | 5.60 e 3 | 0.239 | 1.00 | 4.63 | 4.55 | 12.5 | 52.2270 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | $472.2>426.9$ | 4.05 e 4 | 4.05 e 4 | 0.239 | 1.00 | 4.54 | 4.46 | 12.5 | 52.2270 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.09 e 4 | 4.09 e 4 | 0.239 | 1.00 | 2.95 | 2.86 | 12.5 | 52.2270 | 100.0 |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-28.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:39:18 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:39:35 Pacific Daylight Time |

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_28, Date: 18-Aug-2018, Time: 19:53:25, ID: 1802055-07 Lupes House-DW-072518 0.23934, Description: Lupes House-DW-072518









13C3-PFBS



13C2-PFHxA
F10:MRM of 1 channel,ES-
$315>270$
$3.570 \mathrm{e}+005$



## 13C4-PFHpA


Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-28.qld

Last Altered: Tuesday, August 21, 2018 11:39:18 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:39:35 Pacific Daylight Time

Name: 180818M2_28, Date: 18-Aug-2018, Time: 19:53:25, ID: 1802055-07 Lupes House-DW-072518 0.23934, Description: Lupes House-DW-072518

## L-PFHxS

| F18:MRM of 2 channels,ES- |  |  |
| :---: | :---: | :---: |
|  |  | 398.9 > 79.6 |
| 1007 | L-PFHxS | $5.491 \mathrm{e}+002$ |
|  | 3.64 |  |
|  | 1.69e1 |  |
| \%- | 549 |  |
|  | bb |  |
|  | 549.00 |  |
|  |  | - min |



1802-PFHxS


## Total PFHxS

F18:MRM of 2 channels,ES

| F18:MRM of 2 channels,ES- |  |  |
| :---: | :---: | :---: |
| 100 |  | $\begin{array}{r} 398.9>79.6 \\ 5.491 \mathrm{e}+002 \end{array}$ |
|  | L-PFHxS |  |
|  | 3.64 |  |
|  | 1.69 e 1 |  |
| \% | 549 |  |
| \% | bb |  |
|  | 549.00 |  |
|  |  |  |



## 1802-PFHxS



L-PFOA F21:MRM of 2 channels,ES- $\begin{array}{r}412.9>368.9 \\ 1.064 \mathrm{e}+004\end{array}$


13C2-PFOA




## 13C2-PFOA



PFOSA

| F30:MRM of 2 channels, ES- |
| ---: |
| $498>77.9$ |
|  |



## 13C8-PFOSA

F34:MRM of 1 channel,ES$506.1>77.7$

Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-28.qld

Last Altered: Tuesday, August 21, 2018 11:39:18 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 11:39:35 Pacific Daylight Time

Name: 180818M2_28, Date: 18-Aug-2018, Time: 19:53:25, ID: 1802055-07 Lupes House-DW-072518 0.23934, Description: Lupes House-DW-072518

## PFNA <br> 



## 13C8-PFOS



## Total PFOS

| F32:MRM of 2 channels,ES- |  |  |
| :---: | :---: | :---: |
|  |  | 498.9 > 79.9 |
| 100 L-PFOS |  | $9.353 \mathrm{e}+001$ |
| 10074.44 |  |  |
| 2.12 e 0 |  |  |
| \%- 94 |  |  |
| MM |  |  |
| 94.00 |  |  |
|  | 4.56 | [ |



13C8-PFOS




13C2-PFDA



## 13C2-PFUdA

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-28.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:39:18 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:39:35 Pacific Daylight Time |

Name: 180818M2_28, Date: 18-Aug-2018, Time: 19:53:25, ID: 1802055-07 Lupes House-DW-072518 0.23934, Description: Lupes House-DW-072518

## L-MeFOSAA <br> F48:MRM of 2 channels,ES- <br> channels, ES- $570>419$ 1.000 而 <br> ( | $570>419$ |
| ---: |
| $1.000 \mathrm{e}-003$ |


d3-N-MeFOSAA


d3-N-MeFOSAA






Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-28.qld
Last Altered: Tuesday, August 21, 2018 11:39:18 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:39:35 Pacific Daylight Time

Name: 180818M2_28, Date: 18-Aug-2018, Time: 19:53:25, ID: 1802055-07 Lupes House-DW-072518 0.23934, Description: Lupes House-DW-072518

## PFDoA <br> 



## 13C2-PFDoA

F55:MRM of 2 channels,ES$615.0>569.7$ $8.134 e+005$





## PFTeDA

F61:MRM of 2 channels,ES
$712.8>669.0$


13C2-PFTeDA
F62:MRM of 2 channels,ES$714.8>669.6$ $5.763 \mathrm{e}+005$


TCDA
F31:MRM of 3 channels,ES498.3 > 106.9 $1.000 \mathrm{e}-003$



## 13C8-PFOS



13C4-PFBA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-28.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:39:18 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:39:35 Pacific Daylight Time |

Name: 180818M2_28, Date: 18-Aug-2018, Time: 19:53:25, ID: 1802055-07 Lupes House-DW-072518 0.23934, Description: Lupes House-DW-072518


## 13C4-PFOS <br> F33:MRM of 1 channel,ES $503>79.9$ $1.417 \mathrm{e}+005$ <br> 




## Dataset: <br> Z:IProjectsIPFAS.PRO\Results\180818M2\180818M2-19.qld

Last Altered: Tuesday, August 21, 2018 11:15:23 Pacific Daylight Time Printed: Tuesday, August 21, 2018 11:15:41 Pacific Daylight Time

Name: 180818M2_19, Date: 18-Aug-2018, Time: 18:16:50, ID: B8G0238-MS1 Matrix Spike 0.24901, Description: Matrix Spike

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ | 1.48 e 4 | 1.75 e 4 | 0.249 | 0.000 | 1.08 | 1.08 | 10.5 | 36.8138 |  |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ | 1.81 e 4 | 2.42 e 4 | 0.249 | 0.000 | 2.04 | 2.04 | 9.33 | 39.5052 |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ | 4.17 e 3 | 2.84 e3 | 0.249 | 0.000 | 2.33 | 2.33 | 18.3 | 36.8399 |  | 2.769 | NO |  |
| 4 | 5 PFHxA | $313>269$ | 2.72 e 4 | 1.44 e 4 | 0.249 | 0.000 | 2.86 | 2.86 | 9.41 | 39.3271 |  | 14.392 | NO |  |
| 5 | 7 PFHpA | $363.0>318.9$ | 1.91 e4 | 2.24 e 4 | 0.249 | 0.000 | 3.48 | 3.48 | 10.7 | 38.3457 |  | 21.812 | NO |  |
| 6 | 36 13C3-PFBA | $216.1>171.8$ | 1.75 e 4 | 2.41 e 4 | 0.249 | 0.726 | 1.16 | 1.08 | 9.07 | 44.3142 | 88.3 |  |  |  |
| 7 | 37 13C3-PFPeA | 266. > 221.8 | 2.42 e 4 | 4.25 e 4 | 0.249 | 0.570 | 2.14 | 2.04 | 7.13 | 58.8873 | 117.3 |  |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 2.84 e 3 | 4.25 e 4 | 0.249 | 0.0669 | 2.44 | 2.33 | 0.837 | 66.8160 | 133.1 |  |  |  |
| 9 | 40 13C2-PFHxA | $315>270$ | 1.44 e 4 | 4.25 e 4 | 0.249 | 0.850 | 2.95 | 2.86 | 4.25 | 17.5049 | 87.2 |  |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.24 e 4 | 4.25 e 4 | 0.249 | 0.526 | 3.56 | 3.48 | 6.58 | 43.1788 | 86.0 |  |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 3.06 e 3 | 2.44 e3 | 0.249 | 0.000 | 3.51 | 3.64 | 15.7 | 36.2954 |  | 1.730 | NO |  |
| 13 | 68 Total PFHxS | $398.9>79.6$ | 3.06 e 3 | 2.44e3 | 0.249 |  | 3.65 |  | 15.7 | 36.2954 |  |  |  |  |
| 14 | 11 L-PFOA | $412.9>368.9$ | 2.60 e4 | 3.24 e 4 | 0.249 | 0.000 | 4.00 | 4.01 | 10.1 | 39.9128 |  | 2.731 | NO |  |
| 15 | 69 Total PFOA | $412.9>368.9$ | 2.60 e4 | 3.24 e 4 | 0.249 |  | 4.48 |  | 10.1 | 39.9128 |  |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ | 3.72 e 3 | 4.65 e3 | 0.249 | 0.000 | 4.60 | 4.52 | 9.99 | 38.7746 |  | 34.527 | NO |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.44 e 3 | 5.39 e 3 | 0.249 | 0.453 | 3.72 | 3.63 | 5.66 | 47.0128 | 93.7 |  |  |  |
| 18 | 42 1802-PFHxS | $403.0>102.6$ | 2.44 e 3 | 5.39 e3 | 0.249 | 0.453 | 3.72 | 3.63 | 5.66 | 47.0128 | 93.7 |  |  |  |
| 19 | 44 13C2-PFOA | $414.9>369.7$ | 3.24 e 4 | 4.73 e 4 | 0.249 | 0.685 | 4.09 | 4.01 | 8.56 | 41.8815 | 83.4 |  |  |  |
| 20 | 44 13C2-PFOA | $414.9>369.7$ | 3.24 e 4 | 4.73 e 4 | 0.249 | 0.685 | 4.09 | 4.01 | 8.56 | 41.8815 | 83.4 |  |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 4.65 e 3 | 4.78 e 4 | 0.249 | 0.0972 | 4.60 | 4.52 | 1.21 | 27.7783 | 55.3 |  |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | $463.0>418.8$ | 3.03 e 4 | 3.19 e 4 | 0.249 | 0.000 | 4.54 | 4.46 | 11.9 | 40.5836 |  | 5.210 | NO |  |
| 24 | 16 L-PFOS | $498.9>79.9$ | 3.99 e 3 | 5.66 e 3 | 0.249 | 0.000 | 4.63 | 4.55 | 8.81 | 38.4360 |  | 1.680 | NO |  |
| 25 | 70 Total PFOS | $498.9>79.9$ | 3.99 e 3 | 5.66 e 3 | 0.249 |  | 4.60 |  | 8.81 | 38.4360 |  |  |  |  |
| 26 | 18 PFDA | $513>468.8$ | 3.06 e 4 | 3.14 e 4 | 0.249 | 0.000 | 4.92 | 4.84 | 12.2 | 39.1948 |  | 6.350 | NO |  |
| 27 | 25 PFUdA | $563.0>518.9$ | 2.51 e 4 | 3.48 e 4 | 0.249 | 0.000 | 5.25 | 5.18 | 9.01 | 37.5868 |  | 11.936 | NO |  |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.19 e 4 | 4.05 e 4 | 0.249 | 0.786 | 4.54 | 4.46 | 9.83 | 40.5690 | 80.8 |  |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 5.66 e 3 | 6.25 e3 | 0.249 | 0.906 | 4.63 | 4.55 | 11.3 | 43.2161 | 86.1 |  |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 5.66 e 3 | 6.25 e3 | 0.249 | 0.906 | 4.63 | 4.55 | 11.3 | 43.2161 | 86.1 |  |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.14 e 4 | 4.25 e 4 | 0.249 | 0.739 | 4.92 | 4.84 | 9.24 | 38.7582 | 77.2 |  |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 3.48 e 4 | 4.78 e 4 | 0.249 | 0.727 | 5.25 | 5.18 | 9.09 | 37.1176 | 73.9 |  |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ | 7.32 e 3 | 8.22e3 | 0.249 | 0.000 | 4.98 | 5.00 | 11.1 | 36.9919 |  | 2.720 | NO |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 7.32 e 3 | 8.22 e 3 | 0.249 |  | 5.07 |  | 11.1 | 36.9919 |  |  |  | AD 8/21/2018 |
| 36 | 23 L-EtFOSAA | $584.1>419$ | 6.47 e 3 | 8.99 e 3. | 0.249 | 0.000 | 5.24 | 5.17 | 9.00 | 38.6446 |  | 1.544 | NO |  |

Work Order 1802055

Name: 180818M2_19, Date: 18-Aug-2018, Time: 18:16:50, ID: B8G0238-MS1 Matrix Spike 0.24901, Description: Matrix Spike

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 6.47e3 | 8.99 e3 | 0.249 |  | 5.23 |  | 9.00 | 38.6446 |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ | 3.91 e 3 | 5.66 e 3 | 0.249 | 0.000 | 5.30 | 5.23 | 8.65 | 37.7474 |  | 1.645 | NO |
| 39 | $50 \mathrm{~d} 3-\mathrm{N}-\mathrm{MeFOSAA}$ | $573.3>419$ | 8.22 e 3 | 4.78 e 4 | 0.249 | 0.172 | 5.08 | 5.00 | 2.15 | 35.7345 | 71.2 |  |  |
| 40 | $50 \mathrm{~d} 3-\mathrm{N}-\mathrm{MeFOSAA}$ | $573.3>419$ | 8.22 e 3 | 4.78 e 4 | 0.249 | 0.172 | 5.08 | 5.00 | 2.15 | 35.7345 | 71.2 |  |  |
| 41 | $52 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 8.99 e 3 | 4.78 e 4 | 0.249 | 0.188 | 5.23 | 5.16 | 2.35 | 35.9968 | 71.7 |  |  |
| 42 | 52 d5-N-EtFOSAA | $589.3>419$ | 8.99 e 3 | 4.78 e 4 | 0.249 | 0.188 | 5.23 | 5.16 | 2.35 | 35.9968 | 71.7 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 3.48 e 4 | 4.78 e 4 | 0.249 | 0.727 | 5.25 | 5.18 | 9.09 | 37.1176 | 73.9 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ | 2.96 e 4 | 3.45 e 4 | 0.249 | 0.000 | 5.54 | 5.47 | 10.7 | 38.9303 |  | 8.934 | NO |
| 46 | 29 PFTrDA | $662.9>618.9$ | 3.12 e 4 | 3.45 e 4 | 0.249 | 0.000 | 5.79 | 5.73 | 11.3 | 39.5231 |  | 30.113 | NO |
| 47 | 30 PFTeDA | $712.8>669.0$ | 2.52 e 4 | 2.55 e 4 | 0.249 | 0.000 | 6.01 | 5.96 | 12.4 | 39.0448 |  | 11.646 | NO |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.249 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. $>172$ | 2.41 e 4 | 2.41 e 4 | 0.249 | 1.00 | 1.15 | 1.07 | 12.5 | 50.1988 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 3.45 e4 | 4.25 e 4 | 0.249 | 0.811 | 5.54 | 5.47 | 10.1 | 37.6048 | 74.9 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 3.45 e 4 | 4.25 e 4 | 0.249 | 0.811 | 5.54 | 5.47 | 10.1 | 37.6048 | 74.9 |  |  |
| 52 | 55 13C2-PFTeDA | 714.8 > 669.6 | 2.55 e 4 | 4.78 e 4 | 0.249 | 0.532 | 6.01 | 5.96 | 6.66 | 34.4025 | 68.5 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 5.66 e 3 | 6.25 e 3 | 0.249 | 0.906 | 4.63 | 4.55 | 11.3 | 43.2161 | 86.1 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 5.39 e 3 | 5.39 e 3 | 0.249 | 1.00 | 3.72 | 3.63 | 12.5 | 50.1988 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 4.25 e 4 | 4.25 e 4 | 0.249 | 1.00 | 4.92 | 4.84 | 12.5 | 50.1988 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 4.78 e 4 | 4.78 e 4 | 0.249 | 1.00 | 5.25 | 5.18 | 12.5 | 50.1988 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 6.25 e 3 | 6.25 e 3 | 0.249 | 1.00 | 4.63 | 4.55 | 12.5 | 50.1988 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | 472.2 > 426.9 | 4.05 e 4 | 4.05 e 4 | 0.249 | 1.00 | 4.54 | 4.46 | 12.5 | 50.1988 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.25 e 4 | 4.25 e 4 | 0.249 | 1.00 | 2.95 | 2.86 | 12.5 | 50.1988 | 100.0 |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-19.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:15:23 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:15:41 Pacific Daylight Time |

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_19, Date: 18-Aug-2018, Time: 18:16:50, ID: B8G0238-MS1 Matrix Spike 0.24901, Description: Matrix Spike
 13C3-PFBA
F3:MRM of 1 channel,ES-
$216.1>171.8$
$3.031 \mathrm{e}+005$



13C3-PFPeA
F6:MRM of 1 channel,ES-
$266 .>221.8$



## 13C3-PFBS

F8:MRM of 1 channel,ES-
$302 .>98.8$
$7.761 \mathrm{e}+004$



## 13C2-PFHxA




## 13C4-PFHpA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-19.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:15:23 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:15:41 Pacific Daylight Time |

Name: 180818M2_19, Date: 18-Aug-2018, Time: 18:16:50, ID: B8G0238-MS1 Matrix Spike 0.24901, Description: Matrix Spike

## L-PFHxS

F18:MRM of 2 channels,ES-
$398.9>79.6$
$6.856 e+004$


1802-PFHxS




## 1802-PFHxS



| L-PFOA |
| :---: |
| F21:MRM of 2 channels,ES- |
| $412.9>368.9$ |
| 700 |



13C2-PFOA


## Total PFOA




13C2-PFOA


PFOSA


## 13C8-PFOSA

F34:MRM of 1 channel,ES $506.1>77.7$

Dataset: Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-19.qld
Last Altered: Tuesday, August 21, 2018 11:15:23 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 11:15:41 Pacific Daylight Time

Name: 180818M2_19, Date: 18-Aug-2018, Time: 18:16:50, ID: B8G0238-MS1 Matrix Spike 0.24901, Description: Matrix Spike



## 13C5-PFNA




## 13C8-PFOS





13C8-PFOS




## 13C2-PFDA



## PFUdA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-19.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:15:23 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:15:41 Pacific Daylight Time |

Name: 180818M2_19, Date: 18-Aug-2018, Time: 18:16:50, ID: B8G0238-MS1 Matrix Spike 0.24901, Description: Matrix Spike

## L-MeFOSAA

F48:MRM of 2 channels,ES-
channels, ES-
$570>419$
$15510+005$
$1.551 e+005$



## d3-N-MeFOSAA






d5-N-EtFOSAA



F51:MRM of 2 channels,ES$584.1>526$
$7.983 e+004$


## d5-N-EtFOSAA



PFDS


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-19.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:15:23 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:15:41 Pacific Daylight Time |

Name: 180818M2_19, Date: 18-Aug-2018, Time: 18:16:50, ID: B8G0238-MS1 Matrix Spike 0.24901, Description: Matrix Spike

| PFDoA |  |  |
| :---: | :---: | :---: |
| F54:MRM of 4 channels,ES- |  |  |
|  |  | 612.9 > 569.0 |
| 100 | PFDoA | $6.995 \mathrm{e}+005$ |
|  | 5.47 |  |
|  | 2.96 e 4 |  |
| \%- | 696622 |  |
|  | bb |  |
|  | 14459.87 |  |



## 13C2-PFDoA

F55:MRM of 2 channels,ES$615.0>569.7$ $8.181 e+005$




## 13C2-PFDoA




13C2-PFTeDA



13C8-PFOS


13C4-PFBA



## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945

Last Altered: Tuesday, August 21, 2018 11:15:23 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 11:15:41 Pacific Daylight Time


## Dataset: Z:IProjects|PFAS.PRO\Results\180818M2\180818M2-20.qld

Last Altered: Tuesday, August 21, 2018 11:17:28 Pacific Daylight Time Printed: $\quad$ Tuesday, August 21, 2018 11:17:51 Pacific Daylight Time

Name: 180818M2_20, Date: 18-Aug-2018, Time: 18:27:36, ID: B8G0238-MSD1 Matrix Spike Dup 0.24586, Description: Matrix Spike Dup

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ | 1.45 e 4 | 1.82 e 4 | 0.246 | 0.000 | 1.08 | 1.08 | 9.95 | 35.2129 |  |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ | 1.76 e4 | 2.51 e 4 | 0.246 | 0.000 | 2.04 | 2.04 | 8.78 | 37.6659 |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ | 4.00 e 3 | 2.99 e 3 | 0.246 | 0.000 | 2.34 | 2.34 | 16.7 | 34.0852 |  | 2.747 | NO |  |
| 4 | 5 PFHxA | $313>269$ | 2.67e4 | 1.55 e 4 | 0.246 | 0.000 | 2.86 | 2.86 | 8.63 | 36.5102 |  | 14.515 | NO |  |
| 5 | 7 PFHpA | $363.0>318.9$ | 1.88 e 4 | 2.27 e 4 | 0.246 | 0.000 | 3.48 | 3.48 | 10.4 | 37.7185 |  | 21.640 | NO |  |
| 6 | 36 13C3-PFBA | $216.1>171.8$ | 1.82 e 4 | 2.29e4 | 0.246 | 0.797 | 1.16 | 1.08 | 9.96 | 49.2741 | 96.9 |  |  |  |
| 7 | 37 13C3-PFPeA | 266. > 221.8 | 2.51 e 4 | 4.26 e4 | 0.246 | 0.588 | 2.14 | 2.04 | 7.35 | 61.5575 | 121.1 |  |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 2.99 e 3 | 4.26 e4 | 0.246 | 0.0701 | 2.44 | 2.34 | 0.876 | 70.8172 | 139.3 |  |  |  |
| 9 | 40 13C2-PFHxA | $315>270$ | 1.55 e 4 | 4.26 e4 | 0.246 | 0.908 | 2.95 | 2.86 | 4.54 | 18.9544 | 93.2 |  |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.27 e 4 | 4.26 e 4 | 0.246 | 0.531 | 3.56 | 3.48 | 6.64 | 44.1481 | 86.8 |  |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 2.87 e 3 | 2.23 e3 | 0.246 | 0.000 | 3.51 | 3.64 | 16.1 | 37.7612 |  | 1.717 | NO |  |
| 13 | 68 Total PFHxS | $398.9>79.6$ | 2.87e3 | 2.23 e 3 | 0.246 |  | 3.65 |  | 16.1 | 37.7612 |  |  |  |  |
| 14 | 11 L-PFOA | $412.9>368.9$ | 2.45 e 4 | 3.46 e 4 | 0.246 | 0.000 | 4.00 | 4.01 | 8.86 | 35.5998 |  | 2.702 | NO |  |
| 15 | 69 Total PFOA | $412.9>368.9$ | 2.45 e 4 | 3.46 e 4 | 0.246 |  | 4.48 |  | 8.86 | 35.5998 |  |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ | 3.57 e 3 | 4.70 e 3 | 0.246 | 0.000 | 4.60 | 4.52 | 9.49 | 37.3136 |  | 31.724 | NO |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.23 e3 | 5.27 e3 | 0.246 | 0.424 | 3.72 | 3.64 | 5.30 | 44.5648 | 87.7 |  |  |  |
| 18 | 42 1802-PFHxS | $403.0>102.6$ | 2.23 e3 | 5.27 e3 | 0.246 | 0.424 | 3.72 | 3.64 | 5.30 | 44.5648 | 87.7 |  |  |  |
| 19 | 44 13C2-PFOA | $414.9>369.7$ | 3.46 e 4 | 4.57 e 4 | 0.246 | 0.757 | 4.09 | 4.01 | 9.47 | 46.9179 | 92.3 |  |  |  |
| 20 | 44 13C2-PFOA | $414.9>369.7$ | 3.46 e 4 | 4.57e4 | 0.246 | 0.757 | 4.09 | 4.01 | 9.47 | 46.9179 | 92.3 |  |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 4.70 e 3 | 4.60e4 | 0.246 | 0.102 | 4.60 | 4.52 | 1.28 | 29.5760 | 58.2 |  |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | $463.0>418.8$ | 2.87 e 4 | 3.58 e 4 | 0.246 | 0.000 | 4.54 | 4.46 | 10.0 | 34.6168 |  | 5.196 | NO |  |
| 24 | 16 L-PFOS | $498.9>79.9$ | 4.03 e 3 | 6.04 e 3 | 0.246 | 0.000 | 4.63 | 4.55 | 8.36 | 36.9259 |  | 1.818 | NO |  |
| 25 | 70 Total PFOS | $498.9>79.9$ | 4.03 e 3 | 6.04e3 | 0.246 |  | 4.60 |  | 8.36 | 36.9259 |  |  |  |  |
| 26 | 18 PFDA | $513>468.8$ | 2.85 e 4 | 3.00 e 4 | 0.246 | 0.000 | 4.92 | 4.85 | 11.9 | 38.7906 |  | 6.222 | NO |  |
| 27 | 25 PFUdA | $563.0>518.9$ | 2.38 e 4 | 3.50e4 | 0.246 | 0.000 | 5.25 | 5.18 | 8.48 | 35.8443 |  | 11.561 | NO |  |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.58 e 4 | 4.23 e 4 | 0.246 | 0.846 | 4.54 | 4.46 | 10.6 | 44.2261 | 87.0 |  |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 6.04e3 | 5.78 e 3 | 0.246 | 1.05 | 4.63 | 4.55 | 13.1 | 50.5064 | 99.3 |  |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 6.04 e 3 | 5.78 e 3 | 0.246 | 1.05 | 4.63 | 4.55 | 13.1 | 50.5064 | 99.3 |  |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.00 e 4 | 4.09 e 4 | 0.246 | 0.734 | 4.92 | 4.85 | 9.17 | 38.9662 | 76.6 |  |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 3.50 e 4 | 4.60 e 4 | 0.246 | 0.760 | 5.25 | 5.18 | 9.50 | 39.3278 | 77.4 |  |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ | 7.28 e 3 | 8.07e3 | 0.246 | 0.000 | 4.98 | 5.00 | 11.3 | 37.9544 |  | 2.679 | NO |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 7.28 e 3 | 8.07 e 3 | 0.246 |  | 5.07 |  | 11.3 | 37.9544 |  |  |  | AD 8/21/2018 |
| 36 | 23 L-EtFOSAA | $584.1>419$ | 6.37 e 3 | 9.11 e 3 | 0.246 | 0.000 | 5.24 | 5.17 | 8.74 | 38.0413 |  | 1.507 | NO |  |

Work Order 1802055

Name: 180818M2_20, Date: 18-Aug-2018, Time: 18:27:36, ID: B8G0238-MSD1 Matrix Spike Dup 0.24586, Description: Matrix Spike Dup

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 6.37 e 3 | 9.11 e 3 | 0.246 |  | 5.23 |  | 8.74 | 38.0413 |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ | 3.71 e 3 | 6.04 e 3 | 0.246 | 0.000 | 5.30 | 5.23 | 7.67 | 33.9471 |  | 1.697 | NO |
| 39 | 50 d3-N-MeFOSAA | $573.3>419$ | 8.07e3 | 4.60 e 4 | 0.246 | 0.175 | 5.08 | 5.00 | 2.19 | 36.9051 | 72.6 |  |  |
| 40 | 50 d3-N-MeFOSAA | $573.3>419$ | 8.07e3 | 4.60 e 4 | 0.246 | 0.175 | 5.08 | 5.00 | 2.19 | 36.9051 | 72.6 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 9.11 e 3 | 4.60 e 4 | 0.246 | 0.198 | 5.23 | 5.17 | 2.47 | 38.3869 | 75.5 |  |  |
| 42 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 9.11 e 3 | 4.60 e 4 | 0.246 | 0.198 | 5.23 | 5.17 | 2.47 | 38.3869 | 75.5 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 3.50 e 4 | 4.60 e 4 | 0.246 | 0.760 | 5.25 | 5.18 | 9.50 | 39.3278 | 77.4 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ | 2.76 e 4 | 3.62 e 4 | 0.246 | 0.000 | 5.54 | 5.47 | 9.52 | 34.9313 |  | 8.931 | NO |
| 46 | 29 PFTrDA | $662.9>618.9$ | 2.99 e 4 | 3.62 e 4 | 0.246 | 0.000 | 5.79 | 5.73 | 10.3 | 36.4385 |  | 32.518 | NO |
| 47 | 30 PFTeDA | $712.8>669.0$ | 2.38 e 4 | 2.61 e4 | 0.246 | 0.000 | 6.01 | 5.96 | 11.4 | 36.3462 |  | 12.027 | NO |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.246 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. > 172 | 2.29 e 4 | 2.29 e 4 | 0.246 | 1.00 | 1.15 | 1.08 | 12.5 | 50.8419 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 3.62 e 4 | 4.09 e 4 | 0.246 | 0.886 | 5.54 | 5.47 | 11.1 | 41.5849 | 81.8 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 3.62 e 4 | 4.09 e 4 | 0.246 | 0.886 | 5.54 | 5.47 | 11.1 | 41.5849 | 81.8 |  |  |
| 52 | 55 13C2-PFTeDA | $714.8>669.6$ | 2.61 e 4 | 4.60 e 4 | 0.246 | 0.566 | 6.01 | 5.96 | 7.08 | 37.0619 | 72.9 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 6.04e3 | 5.78 e 3 | 0.246 | 1.05 | 4.63 | 4.55 | 13.1 | 50.5064 | 99.3 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 5.27 e 3 | 5.27 e 3 | 0.246 | 1.00 | 3.72 | 3.64 | 12.5 | 50.8419 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 4.09 e 4 | 4.09 e 4 | 0.246 | 1.00 | 4.92 | 4.85 | 12.5 | 50.8419 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 4.60 e 4 | 4.60 e 4 | 0.246 | 1.00 | 5.25 | 5.18 | 12.5 | 50.8419 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 5.78 e 3 | 5.78 e 3 | 0.246 | 1.00 | 4.63 | 4.55 | 12.5 | 50.8419 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | $472.2>426.9$ | 4.23 e 4 | 4.23 e 4 | 0.246 | 1.00 | 4.54 | 4.46 | 12.5 | 50.8419 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.26 e 4 | 4.26 e 4 | 0.246 | 1.00 | 2.95 | 2.86 | 12.5 | 50.8419 | 100.0 |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-20.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:17:28 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:17:51 Pacific Daylight Time |

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_20, Date: 18-Aug-2018, Time: 18:27:36, ID: B8G0238-MSD1 Matrix Spike Dup 0.24586, Description: Matrix Spike Dup
 13C3-PFBA
F3:MRM of 1 channel,ES-
$216.1>171.8$
$3.067 \mathrm{e}+005$



13C3-PFPeA
F6:MRM of 1 channel,ES-
$266 .>221.8$



## 13C3-PFBS




13C2-PFHxA
F10:MRM of 1 channel,ES-
$315>270$
100



## 13C4-PFHpA



Dataset: Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-20.qld
Last Altered: Tuesday, August 21, 2018 11:17:28 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 11:17:51 Pacific Daylight Time

## Name: 180818M2_20, Date: 18-Aug-2018, Time: 18:27:36, ID: B8G0238-MSD1 Matrix Spike Dup 0.24586, Description: Matrix Spike Dup

## L-PFHxS

F18:MRM of 2 channels,ES-

|  |  | $398.9>79.6$ |
| :---: | :---: | :---: |
| 1007 | L-PFHxS | $6.873 \mathrm{e}+004$ |
|  | 3.64 |  |
|  | 2.87e3 |  |
| \%- | 68726 |  |
|  | MM |  |
|  | 68726.00 |  |
|  | N |  |

F18:MRM of 2 channels,ES-


## 1802-PFHxS



## Total PFHxS



## 1802-PFHxS





13C2-PFOA




## 13C2-PFOA



PFOSA


## 13C8-PFOSA

F34:MRM of 1 channel,ES $506.1>77.7$


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-20.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:17:28 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:17:51 Pacific Daylight Time |

Name: 180818M2_20, Date: 18-Aug-2018, Time: 18:27:36, ID: B8G0238-MSD1 Matrix Spike Dup 0.24586, Description: Matrix Spike Dup

PFNA



## 13C5-PFNA

F28:MRM of 1 channel,ES-



## 13C8-PFOS



| Total PFOS |  |
| :---: | :---: |
| F32:MRM of 2 channels,ES- |  |
|  | $498.9>79.9$ |
| 100 | $8.272 \mathrm{e}+004$ |



13C8-PFOS




## 13C2-PFDA




| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-20.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:17:28 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:17:51 Pacific Daylight Time |

Name: 180818M2_20, Date: 18-Aug-2018, Time: 18:27:36, ID: B8G0238-MSD1 Matrix Spike Dup 0.24586, Description: Matrix Spike Dup

## L-MeFOSAA

F48:MRM of 2 channels,ES-
channels, ES-
$570>419$
$1.544 \mathrm{e}+005$



## d3-N-MeFOSAA






d5-N-EtFOSAA



F51:MRM of 2 channels,ES$584.1>526$




| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-20.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:17:28 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:17:51 Pacific Daylight Time |

Name: 180818M2_20, Date: 18-Aug-2018, Time: 18:27:36, ID: B8G0238-MSD1 Matrix Spike Dup 0.24586, Description: Matrix Spike Dup

| PFDoA |  |  |
| :---: | :---: | :---: |
| F54:MRM of 4 channels,ES- |  |  |
|  |  | 612.9 > 569.0 |
| 1007 | PFDoA | $6.493 \mathrm{e}+005$ |
|  | 5.47 |  |
|  | 2.76 e 4 |  |
| \%- | 646857 |  |
|  | bb |  |
|  | 12209.34 |  |



## 13C2-PFDoA

F55:MRM of 2 channels,ES$615.0>569.7$ $8.525 \mathrm{e}+005$






13C2-PFTeDA



13C8-PFOS




## Quantify Sample Report

## MassLynx MassLynx V4.1 SCN 945

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-20.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Tuesday, August 21, 2018 11:17:28 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:17:51 Pacific Daylight Time |

Name: 180818M2_20, Date: 18-Aug-2018, Time: 18:27:36, ID: B8G0238-MSD1 Matrix Spike Dup 0.24586, Description: Matrix Spike Dup


## Dataset: Z:IProjects|PFAS.PRO\Results\180818M2\180818M2-30.qld

Last Altered: Tuesday, August 21, 2018 11:51:06 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:51:23 Pacific Daylight Time

Name: 180818M2_30, Date: 18-Aug-2018, Time: 20:14:52, ID: 1802055-09 Charlies-DW-072518 0.24358, Description: Charlies-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ | 1.61 e 2 | 1.99 e 4 | 0.244 | 0.000 | 1.08 | 1.08 | 0.101 | 0.4680 |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ | 8.98 e 1 | 2.87e4 | 0.244 | 0.000 | 2.04 | 2.04 | 0.0391 | 0.2690 |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ |  | 3.41 e 3 | 0.244 |  | 2.33 |  |  |  |  |  |  |
| 4 | 5 PFHxA | $313>269$ |  | 1.76 e 4 | 0.244 |  | 2.86 |  |  |  |  |  |  |
| 5 | 7 PFHpA | $363.0>318.9$ |  | 2.69 e 4 | 0.244 |  | 3.48 |  |  |  |  |  |  |
| 6 | 36 13C3-PFBA | $216.1>171.8$ | 1.99 e 4 | 2.56 e 4 | 0.244 | 0.777 | 1.16 | 1.08 | 9.71 | 48.4780 | 94.5 |  |  |
| 7 | 37 13C3-PFPeA | 266. > 221.8 | 2.87e4 | 4.85 e 4 | 0.244 | 0.592 | 2.14 | 2.04 | 7.40 | 62.5372 | 121.9 |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 3.41 e 3 | 4.85 e 4 | 0.244 | 0.0703 | 2.44 | 2.33 | 0.879 | 71.7227 | 139.8 |  |  |
| 9 | 40 13C2-PFHxA | $315>270$ | 1.76 e 4 | 4.85 e 4 | 0.244 | 0.909 | 2.95 | 2.86 | 4.54 | 19.1463 | 93.3 |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.69 e4 | 4.85 e 4 | 0.244 | 0.554 | 3.56 | 3.48 | 6.92 | 46.4440 | 90.5 |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 3.68 e 1 | 2.92 e 3 | 0.244 | 0.000 | 3.51 | 3.64 | 0.157 | 0.4304 |  | 5.273 | YES |
| 13 | 68 Total PFHxS | $398.9>79.6$ | 3.68 e 1 | 2.92 e 3 | 0.244 |  | 3.65 |  | 0.157 | 0.4304 |  |  |  |
| 14 | 11 L-PFOA | 412.9 > 368.9 | 4.70 e 2 | 3.96e4 | 0.244 | 0.000 | 4.00 | 4.01 | 0.148 | 0.4666 |  | 2.375 | NO |
| 15 | 69 Total PFOA | 412.9 > 368.9 | 4.70 e 2 | 3.96e4 | 0.244 |  | 4.48 |  | 0.148 | 0.4666 |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ |  | 3.88e3 | 0.244 |  | 4.60 |  |  |  |  |  |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.92 e 3 | 6.33 e3 | 0.244 | 0.462 | 3.72 | 3.64 | 5.77 | 49.0063 | 95.5 |  |  |
| 18 | 42 1802-PFHxS | 403.0 > 102.6 | 2.92 e3 | 6.33 e3 | 0.244 | 0.462 | 3.72 | 3.64 | 5.77 | 49.0063 | 95.5 |  |  |
| 19 | 44 13C2-PFOA | 414.9 > 369.7 | 3.96 e 4 | 5.39 e 4 | 0.244 | 0.735 | 4.09 | 4.01 | 9.18 | 45.9405 | 89.5 |  |  |
| 20 | 44 13C2-PFOA | 414.9 > 369.7 | 3.96 e 4 | 5.39 e 4 | 0.244 | 0.735 | 4.09 | 4.01 | 9.18 | 45.9405 | 89.5 |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 3.88 e 3 | 5.58 e 4 | 0.244 | 0.0695 | 4.60 | 4.52 | 0.869 | 20.3113 | 39.6 |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | $463.0>418.8$ |  | 3.95e4 | 0.244 |  | 4.54 |  |  |  |  |  |  |
| 24 | 16 L-PFOS | $498.9>79.9$ | 6.49e1 | 7.22 e 3 | 0.244 | 0.000 | 4.63 | 4.55 | 0.112 | 0.6117 |  | 3.155 | YES |
| 25 | 70 Total PFOS | $498.9>79.9$ | 6.49e1 | 7.22 e 3 | 0.244 |  | 4.60 |  | 0.112 | 0.6117 |  |  |  |
| 26 | 18 PFDA | $513>468.8$ | 7.11 e 1 | 3.58 e 4 | 0.244 | 0.000 | 4.92 | 4.85 | 0.0248 | 0.1196 |  | 3.577 | YES |
| 27 | 25 PFUdA | $563.0>518.9$ | 1.18 e 2 | 3.93 e 4 | 0.244 | 0.000 | 5.25 | 5.19 | 0.0375 | 0.0655 |  | 63.695 | YES |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.95 e4 | 4.86e4 | 0.244 | 0.814 | 4.54 | 4.46 | 10.2 | 42.9105 | 83.6 |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 7.22 e 3 | 7.57 e 3 | 0.244 | 0.954 | 4.63 | 4.55 | 11.9 | 46.5131 | 90.6 |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 7.22 e 3 | 7.57 e 3 | 0.244 | 0.954 | 4.63 | 4.55 | 11.9 | 46.5131 | 90.6 |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.58 e 4 | 4.97 e 4 | 0.244 | 0.720 | 4.92 | 4.85 | 8.99 | 38.5726 | 75.2 |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 3.93 e 4 | 5.58 e 4 | 0.244 | 0.704 | 5.25 | 5.18 | 8.80 | 36.7652 | 71.6 |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ |  | 9.39 e 3 | 0.244 |  | 4.98 |  |  |  |  |  |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00e0 | 9.39 e 3 | 0.244 |  | 5.07 |  | 0.000 |  |  |  |  |
| 36 | 23 L-EtFOSAA | $584.1>419$ |  | 1.05 e 4 | 0.244 |  | 5.24 |  |  |  |  |  |  |

Name: 180818M2_30, Date: 18-Aug-2018, Time: 20:14:52, ID: 1802055-09 Charlies-DW-072518 0.24358, Description: Charlies-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 1.05 e 4 | 0.244 |  | 5.23 |  | 0.000 |  |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ |  | 7.22 e 3 | 0.244 |  | 5.30 |  |  |  |  |  |  |
| 39 | 50 d3-N-MeFOSAA | $573.3>419$ | 9.39 e 3 | 5.58 e 4 | 0.244 | 0.168 | 5.08 | 5.00 | 2.10 | 35.7483 | 69.7 |  |  |
| 40 | 50 d3-N-MeFOSAA | $573.3>419$ | 9.39 e 3 | 5.58 e 4 | 0.244 | 0.168 | 5.08 | 5.00 | 2.10 | 35.7483 | 69.7 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 1.05 e 4 | 5.58 e 4 | 0.244 | 0.188 | 5.23 | 5.16 | 2.35 | 36.8322 | 71.8 |  |  |
| 42 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 1.05 e 4 | 5.58 e 4 | 0.244 | 0.188 | 5.23 | 5.16 | 2.35 | 36.8322 | 71.8 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 3.93 e 4 | 5.58 e 4 | 0.244 | 0.704 | 5.25 | 5.18 | 8.80 | 36.7652 | 71.6 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ |  | 4.12 e 4 | 0.244 |  | 5.54 |  |  |  |  |  |  |
| 46 | 29 PFTrDA | $662.9>618.9$ |  | 4.12 e 4 | 0.244 |  | 5.79 |  |  |  |  |  |  |
| 47 | 30 PFTeDA | $712.8>669.0$ | 6.76 e 1 | 3.51 e 4 | 0.244 | 0.000 | 6.01 | 5.96 | 0.0241 | 0.1252 |  | 14.224 | NO |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.244 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. > 172 | 2.56 e 4 | 2.56 e 4 | 0.244 | 1.00 | 1.15 | 1.07 | 12.5 | 51.3178 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 4.12 e 4 | 4.97 e 4 | 0.244 | 0.829 | 5.54 | 5.47 | 10.4 | 39.2801 | 76.5 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 4.12 e 4 | 4.97 e 4 | 0.244 | 0.829 | 5.54 | 5.47 | 10.4 | 39.2801 | 76.5 |  |  |
| 52 | 55 13C2-PFTeDA | $714.8>669.6$ | 3.51 e 4 | 5.58 e 4 | 0.244 | 0.628 | 6.01 | 5.96 | 7.85 | 41.4741 | 80.8 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 7.22e3 | 7.57 e 3 | 0.244 | 0.954 | 4.63 | 4.55 | 11.9 | 46.5131 | 90.6 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 6.33 e 3 | 6.33 e 3 | 0.244 | 1.00 | 3.72 | 3.64 | 12.5 | 51.3178 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 4.97 e 4 | 4.97 e 4 | 0.244 | 1.00 | 4.92 | 4.85 | 12.5 | 51.3178 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 5.58 e 4 | 5.58 e 4 | 0.244 | 1.00 | 5.25 | 5.18 | 12.5 | 51.3178 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 7.57e3 | 7.57 e 3 | 0.244 | 1.00 | 4.63 | 4.55 | 12.5 | 51.3178 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | $472.2>426.9$ | 4.86 e 4 | 4.86 e 4 | 0.244 | 1.00 | 4.54 | 4.46 | 12.5 | 51.3178 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.85 e 4 | 4.85 e 4 | 0.244 | 1.00 | 2.95 | 2.86 | 12.5 | 51.3178 | 100.0 |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-30.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:51:06 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:51:23 Pacific Daylight Time |

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_30, Date: 18-Aug-2018, Time: 20:14:52, ID: 1802055-09 Charlies-DW-072518 0.24358, Description: Charlies-DW-072518
 13C3-PFBA
F3:MRM of 1 channel,ES-
$216.1>171.8$
$3.413 \mathrm{e}+005$


## 13C3-PFPeA



PFBS



## 13C2-PFHxA




13C4-PFHpA
F17:MRM of 1 channel,ES-
$367.2>321.8$


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-30.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:51:06 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:51:23 Pacific Daylight Time |

## Name: 180818M2_30, Date: 18-Aug-2018, Time: 20:14:52, ID: 1802055-09 Charlies-DW-072518 0.24358, Description: Charlies-DW-072518

## L-PFHxS

F18:MRM of 2 channels,ES-

$398.9>79.6$
$1.273 \mathrm{e}+003$


## 1802-PFHxS



## Total PFHxS



## 1802-PFHxS




13C2-PFOA




## 13C2-PFOA



PFOSA
$\begin{array}{r}\text { F30:MRM of } 2 \text { channels,ES- } \\ 498>77.9 \\ 1.000 \mathrm{e}-003 \\ \hline\end{array}$


## 13C8-PFOSA

Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-30.qld
Last Altered: Tuesday, August 21, 2018 11:51:06 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:51:23 Pacific Daylight Time

Name: 180818M2_30, Date: 18-Aug-2018, Time: 20:14:52, ID: 1802055-09 Charlies-DW-072518 0.24358, Description: Charlies-DW-072518

## PFNA <br> F27:MRM of 2 channels,ES- $463.0>418.8$



## 13C5-PFNA





## 13C8-PFOS




13C8-PFOS




## 13C2-PFDA




| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-30.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:51:06 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:51:23 Pacific Daylight Time |

Name: 180818M2_30, Date: 18-Aug-2018, Time: 20:14:52, ID: 1802055-09 Charlies-DW-072518 0.24358, Description: Charlies-DW-072518

## L-MeFOSAA










d5-N-EtFOSAA




## d5-N-EtFOSAA



Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-30.qld
Last Altered: Tuesday, August 21, 2018 11:51:06 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 11:51:23 Pacific Daylight Time

Name: 180818M2_30, Date: 18-Aug-2018, Time: 20:14:52, ID: 1802055-09 Charlies-DW-072518 0.24358, Description: Charlies-DW-072518


F54:MRM of 4 channels,ES$612.9>318.8$


## 13C2-PFDoA

F55:MRM of 2 channels,ES$615.0>569.7$ $9.642 e+005$






13C2-PFTeDA



## 13C8-PFOS



13C4-PFBA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-30.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:51:06 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:51:23 Pacific Daylight Time |

Name: 180818M2_30, Date: 18-Aug-2018, Time: 20:14:52, ID: 1802055-09 Charlies-DW-072518 0.24358, Description: Charlies-DW-072518


## 13C4-PFOS <br> F33:MRM of 1 channel,ES1 channel,ES- $503>79.9$ $1.951 \mathrm{e}+005$

13C5-PFHxA


## Dataset: Z:IProjects|PFAS.PRO\Results\180818M2\180818M2-32.qld

Last Altered: Tuesday, August 21, 2018 11:56:16 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 14:37:43 Pacific Daylight Time

Name: 180818M2_32, Date: 18-Aug-2018, Time: 20:36:20, ID: 1802055-11 Hortzendorf-DW-072518 0.23788, Description: Hortzendorf-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ | 1.09 e 2 | 1.84 e 4 | 0.238 | 0.000 | 1.08 | 1.08 | 0.0740 | 0.3803 |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 2.64 e 4 | 0.238 |  | 2.04 |  |  |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ |  | 3.13 e 3 | 0.238 |  | 2.34 |  |  |  |  |  |  |
| 4 | 5 PFHxA | $313>269$ |  | 1.64 e 4 | 0.238 |  | 2.86 |  |  |  |  |  |  |
| 5 | 7 PFHpA | 363.0 > 318.9 |  | 2.47 e 4 | 0.238 |  | 3.48 |  |  |  |  |  |  |
| 6 | $3613 C 3-P F B A$ | 216.1 > 171.8 | 1.84 e 4 | 2.41 e 4 | 0.238 | 0.765 | 1.16 | 1.08 | 9.57 | 48.9320 | 93.1 |  |  |
| 7 | 37 13C3-PFPeA | 266. > 221.8 | 2.64 e 4 | 4.45 e 4 | 0.238 | 0.592 | 2.14 | 2.04 | 7.40 | 64.0522 | 121.9 |  |  |
| 8 | 38 13C3-PFBS | 302. $>98.8$ | 3.13 e 3 | 4.45 e 4 | 0.238 | 0.0702 | 2.44 | 2.34 | 0.878 | 73.3943 | 139.7 |  |  |
| 9 | 40 13C2-PFHxA | $315>270$ | 1.64 e 4 | 4.45 e 4 | 0.238 | 0.923 | 2.95 | 2.86 | 4.61 | 19.8981 | 94.7 |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.47 e 4 | 4.45 e 4 | 0.238 | 0.554 | 3.56 | 3.48 | 6.93 | 47.5881 | 90.6 |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 7.43 e 0 | 2.57 e 3 | 0.238 | 0.000 | 3.51 | 3.63 | 0.0362 | 0.1468 |  | 0.714 | YES |
| 13 | 68 Total PFHxS | $398.9>79.6$ | 7.43 e 0 | 2.57 e 3 | 0.238 |  | 3.65 |  | 0.0362 | 0.1468 |  |  |  |
| 14 | 11 L-PFOA | 412.9 > 368.9 | 3.16 e 2 | 3.73 e 4 | 0.238 | 0.000 | 4.00 | 4.01 | 0.106 | 0.3013 |  | 2.555 | NO |
| 15 | 69 Total PFOA | 412.9 > 368.9 | 3.16 e 2 | 3.73 e 4 | 0.238 |  | 4.48 |  | 0.106 | 0.3013 |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ |  | 5.25 e3 | 0.238 |  | 4.60 |  |  |  |  |  |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.57 e 3 | 5.57 e 3 | 0.238 | 0.460 | 3.72 | 3.64 | 5.75 | 50.0525 | 95.3 |  |  |
| 18 | 42 1802-PFHxS | 403.0 > 102.6 | 2.57e3 | 5.57 e 3 | 0.238 | 0.460 | 3.72 | 3.64 | 5.75 | 50.0525 | 95.3 |  |  |
| 19 | 44 13C2-PFOA | 414.9 > 369.7 | 3.73 e 4 | 5.17 e 4 | 0.238 | 0.722 | 4.09 | 4.01 | 9.02 | 46.2064 | 87.9 |  |  |
| 20 | 44 13C2-PFOA | 414.9 > 369.7 | 3.73 e 4 | 5.17 e 4 | 0.238 | 0.722 | 4.09 | 4.01 | 9.02 | 46.2064 | 87.9 |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 5.25 e 3 | 5.23 e 4 | 0.238 | 0.100 | 4.60 | 4.52 | 1.26 | 30.0520 | 57.2 |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | $463.0>418.8$ |  | 3.68 e 4 | 0.238 |  | 4.54 |  |  |  |  |  |  |
| 24 | 16 L-PFOS | $498.9>79.9$ | 5.63 e 0 | 6.48 e 3 | 0.238 | 0.000 | 4.63 | 4.45 | 0.0109 | 0.1624 |  | 1.018 | YES |
| 25 | 70 Total PFOS | $498.9>79.9$ | 5.63 e 0 | 6.48 e 3 | 0.238 |  | 4.60 |  | 0.0109 | 0.1624 |  |  |  |
| 26 | 18 PFDA | $513>468.8$ | 7.93 e 1 | 3.70 e 4 | 0.238 | 0.000 | 4.92 | 4.85 | 0.0268 | 0.1292 |  | 46.503 | YES |
| 27 | 25 PFUdA | $563.0>518.9$ | 1.65 e 2 | 4.20 e 4 | 0.238 | 0.000 | 5.25 | 5.18 | 0.0490 | 0.1176 |  | 20.882 | YES |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.68 e 4 | 4.69 e 4 | 0.238 | 0.785 | 4.54 | 4.46 | 9.82 | 42.4173 | 80.7 |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 6.48 e 3 | 6.38 e 3 | 0.238 | 1.02 | 4.63 | 4.55 | 12.7 | 50.7196 | 96.5 |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 6.48 e 3 | 6.38 e 3 | 0.238 | 1.02 | 4.63 | 4.55 | 12.7 | 50.7196 | 96.5 |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.70 e 4 | 4.80 e 4 | 0.238 | 0.770 | 4.92 | 4.85 | 9.62 | 42.2503 | 80.4 |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 4.20 e 4 | 5.23 e 4 | 0.238 | 0.805 | 5.25 | 5.18 | 10.1 | 43.0146 | 81.9 |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ |  | 9.29 e 3 | 0.238 |  | 4.98 |  |  |  |  |  |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00e0 | 9.29 e 3 | 0.238 |  | 5.07 |  | 0.000 |  |  |  |  |
| 36 | 23 L-EtFOSAA | $584.1>419$ |  | 1.02 e 4 | 0.238 |  | 5.24 |  |  |  |  |  |  |

Dataset: Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-32.qld
Last Altered: Tuesday, August 21, 2018 11:56:16 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 14:37:43 Pacific Daylight Time

Name: 180818M2_32, Date: 18-Aug-2018, Time: 20:36:20, ID: 1802055-11 Hortzendorf-DW-072518 0.23788, Description: Hortzendorf-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 1.02 e 4 | 0.238 |  | 5.23 |  | 0.000 |  |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ |  | 6.48 e 3 | 0.238 |  | 5.30 |  |  |  |  |  |  |
| 39 | 50 d3-N-MeFOSAA | $573.3>419$ | 9.29e3 | 5.23 e 4 | 0.238 | 0.178 | 5.08 | 5.00 | 2.22 | 38.6808 | 73.6 |  |  |
| 40 | 50 d3-N-MeFOSAA | $573.3>419$ | 9.29e3 | 5.23 e 4 | 0.238 | 0.178 | 5.08 | 5.00 | 2.22 | 38.6808 | 73.6 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 1.02 e 4 | 5.23 e 4 | 0.238 | 0.195 | 5.23 | 5.16 | 2.44 | 39.1733 | 74.5 |  |  |
| 42 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 1.02 e 4 | 5.23 e 4 | 0.238 | 0.195 | 5.23 | 5.16 | 2.44 | 39.1733 | 74.5 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 4.20 e 4 | 5.23 e 4 | 0.238 | 0.805 | 5.25 | 5.18 | 10.1 | 43.0146 | 81.9 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ | 4.69 e 1 | 4.19 e 4 | 0.238 | 0.000 | 5.54 | 5.47 | 0.0140 | 0.0702 |  | 12.392 | YES |
| 46 | 29 PFTrDA | $662.9>618.9$ |  | 4.19 e 4 | 0.238 |  | 5.79 |  |  |  |  |  |  |
| 47 | 30 PFTeDA | $712.8>669.0$ | 7.32 e 1 | 3.34 e 4 | 0.238 | 0.000 | 6.01 | 5.95 | 0.0274 | 0.1391 |  | 20.597 | YES |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.238 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. $>172$ | 2.41 e 4 | 2.41 e 4 | 0.238 | 1.00 | 1.15 | 1.08 | 12.5 | 52.5475 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 4.19 e 4 | 4.80 e 4 | 0.238 | 0.872 | 5.54 | 5.47 | 10.9 | 42.3288 | 80.6 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 4.19 e 4 | 4.80 e 4 | 0.238 | 0.872 | 5.54 | 5.47 | 10.9 | 42.3288 | 80.6 |  |  |
| 52 | 55 13C2-PFTeDA | $714.8>669.6$ | 3.34 e 4 | 5.23 e 4 | 0.238 | 0.639 | 6.01 | 5.96 | 7.99 | 43.2490 | 82.3 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 6.48 e 3 | 6.38 e 3 | 0.238 | 1.02 | 4.63 | 4.55 | 12.7 | 50.7196 | 96.5 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 5.57 e 3 | 5.57 e 3 | 0.238 | 1.00 | 3.72 | 3.64 | 12.5 | 52.5475 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 4.80 e 4 | 4.80 e 4 | 0.238 | 1.00 | 4.92 | 4.85 | 12.5 | 52.5475 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 5.23 e 4 | 5.23 e 4 | 0.238 | 1.00 | 5.25 | 5.18 | 12.5 | 52.5475 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 6.38 e 3 | 6.38 e 3 | 0.238 | 1.00 | 4.63 | 4.55 | 12.5 | 52.5475 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | $472.2>426.9$ | 4.69 e 4 | 4.69 e 4 | 0.238 | 1.00 | 4.54 | 4.46 | 12.5 | 52.5475 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.45 e 4 | 4.45 e 4 | 0.238 | 1.00 | 2.95 | 2.86 | 12.5 | 52.5475 | 100.0 |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-32.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:56:16 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 14:37:43 Pacific Daylight Time |

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_32, Date: 18-Aug-2018, Time: 20:36:20, ID: 1802055-11 Hortzendorf-DW-072518 0.23788, Description: Hortzendorf-DW-072518



F3:MRM of 1 channel,ES-
$216.1>171.8$



## 13C3-PFPeA



PFBS



$$
\begin{array}{rr}
302 .>98.8 \\
& 8.579 \mathrm{e}+004
\end{array}
$$

(100

PFHxA


## 13C2-PFHxA




## 13C4-PFHpA



## Dataset: Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-32.qld

Last Altered: Tuesday, August 21, 2018 11:56:16 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 14:37:43 Pacific Daylight Time

## Name: 180818M2_32, Date: 18-Aug-2018, Time: 20:36:20, ID: 1802055-11 Hortzendorf-DW-072518 0.23788, Description: Hortzendorf-DW-072518

## L-PFHxS

F18:MRM of 2 channels,ES-

|  |  | $398.9>79.6$ |
| :---: | :---: | :---: |
| 100 | L-PFHxS | $1.939 \mathrm{e}+002$ |
|  | 3.63 |  |
|  | 7.43 e 0 |  |
| \%- | 194 |  |
|  | bb |  |
|  | 194.00 |  |



## 1802-PFHxS



## Total PFHxS



## 1802-PFHxS




13C2-PFOA


## Total PFOA

F21:MRM of 2 channels,ES-

F21:MRM of 2 channels,ES-


## 13C2-PFOA



PFOSA
$\begin{array}{r}\text { F30:MRM of } 2 \text { channels, ES- } \\ 498>77.9 \\ \\ \hline\end{array}$


## 13C8-PFOSA

F34:MRM of 1 channel,ES $506.1>77.7$

Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-32.qld

Last Altered: Tuesday, August 21, 2018 11:56:16 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 14:37:43 Pacific Daylight Time

Name: 180818M2_32, Date: 18-Aug-2018, Time: 20:36:20, ID: 1802055-11 Hortzendorf-DW-072518 0.23788, Description: Hortzendorf-DW-072518


## L-PFOS <br> 



## 13C8-PFOS





13C8-PFOS




13C2-PFDA



## 13C2-PFUdA

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-32.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:56:16 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 14:37:43 Pacific Daylight Time |

Name: 180818M2_32, Date: 18-Aug-2018, Time: 20:36:20, ID: 1802055-11 Hortzendorf-DW-072518 0.23788, Description: Hortzendorf-DW-072518

## L-MeFOSAA

F48:MRM of 2 channels,ES-


F48:MRM of 2 channels,ES-


## d3-N-MeFOSAA










F51:MRM of 2 channels,ES$584.1>526$ $1.000 \mathrm{e}-003$


## d5-N-EtFOSAA

F52:MRM of 1 channel,ES$589.3>419$ $2.560 \mathrm{e}+005$



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-32.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:56:16 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 14:37:43 Pacific Daylight Time |

Name: 180818M2_32, Date: 18-Aug-2018, Time: 20:36:20, ID: 1802055-11 Hortzendorf-DW-072518 0.23788, Description: Hortzendorf-DW-072518

## PFDoA <br> F54:MRM of 4 channels,ES- $612.9>569.0$ $1.198 \mathrm{e}+003$



## 13C2-PFDoA

F55:MRM of 2 channels,ES$615.0>569.7$ $9.870 \mathrm{e}+005$





## PFTeDA

F61:MRM of 2 channels,ES-
$712.8>669.0$


F61:MRM of 2 channels,ES-


13C2-PFTeDA


## TCDA

F31:MRM of 3 channels,ES$498.3>106.9$ $1.000 \mathrm{e}-003$


F31:MRM of 3 channels,ES$498.3>123.9$


13C8-PFOS


13C4-PFBA



## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-32.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Tuesday, August 21, 2018 11:56:16 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 14:37:43 Pacific Daylight Time |

Name: 180818M2_32, Date: 18-Aug-2018, Time: 20:36:20, ID: 1802055-11 Hortzendorf-DW-072518 0.23788, Description: Hortzendorf-DW-072518



## Dataset: <br> Z:IProjects\PFAS.PRO\Results\180818M2\180818M2-34.qld <br> Last Altered: Tuesday, August 21, 2018 12:32:09 Pacific Daylight Time Printed: Tuesday, August 21, 2018 12:32:25 Pacific Daylight Time

Name: 180818M2_34, Date: 18-Aug-2018, Time: 20:57:47, ID: 1802055-13 Charlies Pasture-DW-072518 0.24128, Description: Charlies Pasture-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ | 4.17e4 | 2.03e4 | 0.241 | 0.000 | 1.07 | 1.08 | 25.7 | 92.5319 |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ | 1.51 e 5 | 2.71 e 4 | 0.241 | 0.000 | 2.04 | 2.04 | 69.8 | 299.9824 |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ | 4.95 e3 | 3.36 e 3 | 0.241 | 0.000 | 2.33 | 2.33 | 18.4 | 38.1515 |  | 2.799 | NO |
| 4 | 5 PFHxA | $313>269$ | 3.05 e 5 | 1.69 e 4 | 0.241 | 0.000 | 2.86 | 2.86 | 90.2 | 389.9905 |  | 15.025 | NO |
| 5 | 7 PFHpA | $363.0>318.9$ | 9.70 e 4 | 2.58 e 4 | 0.241 | 0.000 | 3.48 | 3.48 | 47.0 | 174.0268 |  | 20.406 | NO |
| 6 | 36 13C3-PFBA | $216.1>171.8$ | 2.03 e 4 | 2.68 e 4 | 0.241 | 0.755 | 1.16 | 1.07 | 9.44 | 47.6115 | 91.9 |  |  |
| 7 | 37 13C3-PFPeA | 266. $>221.8$ | 2.71 e 4 | 4.59 e 4 | 0.241 | 0.591 | 2.14 | 2.04 | 7.38 | 62.9665 | 121.5 |  |  |
| 8 | 38 13C3-PFBS | 302. $>98.8$ | 3.36 e 3 | 4.59 e 4 | 0.241 | 0.0733 | 2.44 | 2.33 | 0.916 | 75.4681 | 145.7 |  |  |
| 9 | 40 13C2-PFHXA | $315>270$ | 1.69 e 4 | 4.59 e 4 | 0.241 | 0.921 | 2.95 | 2.86 | 4.60 | 19.5771 | 94.5 |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.58 e 4 | 4.59 e 4 | 0.241 | 0.563 | 3.56 | 3.48 | 7.03 | 47.6183 | 91.9 |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 6.70 e 4 | 2.13 e3 | 0.241 | 0.000 | 3.51 | 3.64 | 393 | 916.0066 |  | 1.798 | NO |
| 13 | 68 Total PFHxS | $398.9>79.6$ | 6.70 e 4 | 2.13 e3 | 0.241 |  | 3.65 |  | 393 | 916.2007 |  |  |  |
| 14 | 11 L-PFOA | $412.9>368.9$ | 5.73 e 5 | 3.43 e 4 | 0.241 | 0.000 | 4.00 | 4.01 | 209 | 858.8654 |  | 2.493 | NO |
| 15 | 69 Total PFOA | $412.9>368.9$ | 5.73 e 5 | 3.43 e 4 | 0.241 |  | 4.48 |  | 209 | 858.8654 |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ | 2.16 e 3 | 4.39 e 3 | 0.241 | 0.000 | 4.60 | 4.52 | 6.16 | 24.7224 |  | 25.309 | NO |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.13 e3 | 4.85 e 3 | 0.241 | 0.439 | 3.72 | 3.64 | 5.49 | 47.0998 | 90.9 |  |  |
| 18 | 42 1802-PFHxS | $403.0>102.6$ | 2.13 e 3 | 4.85 e 3 | 0.241 | 0.439 | 3.72 | 3.64 | 5.49 | 47.0998 | 90.9 |  |  |
| 19 | 44 13C2-PFOA | $414.9>369.7$ | 3.43e4 | 4.66 e 4 | 0.241 | 0.736 | 4.09 | 4.01 | 9.20 | 46.4807 | 89.7 |  |  |
| 20 | 44 13C2-PFOA | $414.9>369.7$ | 3.43 e 4 | 4.66 e 4 | 0.241 | 0.736 | 4.09 | 4.01 | 9.20 | 46.4807 | 89.7 |  |  |
| 21 | 46 13C8-PFOSA | 506.1 > 77.7 | 4.39 e 3 | 5.52 e 4 | 0.241 | 0.0794 | 4.60 | 4.52 | 0.993 | 23.4220 | 45.2 |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | $463.0>418.8$ | 2.23 e 4 | 3.72 e4 | 0.241 | 0.000 | 4.54 | 4.46 | 7.48 | 26.3588 |  | 4.918 | NO |
| 24 | 16 L-PFOS | $498.9>79.9$ | 1.38 e 5 | 4.69 e 3 | 0.241 | 0.000 | 4.63 | 4.55 | 367 | 1472.9349 |  | 1.782 | NO |
| 25 | 70 Total PFOS | $498.9>79.9$ | 1.38 e 5 | 4.69 e3 | 0.241 |  | 4.60 |  | 367 | 1472.9349 |  |  |  |
| 26 | 18 PFDA | $513>468.8$ | 1.86 e 3 | 3.78 e 4 | 0.241 | 0.000 | 4.92 | 4.85 | 0.615 | 2.0828 |  | 5.649 | NO |
| 27 | 25 PFUdA | $563.0>518.9$ |  | 4.31 e 4 | 0.241 |  | 5.25 |  |  |  |  |  |  |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.72 e 4 | 4.81 e 4 | 0.241 | 0.774 | 4.54 | 4.46 | 9.67 | 41.1965 | 79.5 |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 4.69 e 3 | 5.24 e 3 | 0.241 | 0.894 | 4.63 | 4.55 | 11.2 | 44.0240 | 85.0 |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 4.69 e 3 | 5.24 e 3 | 0.241 | 0.894 | 4.63 | 4.55 | 11.2 | 44.0240 | 85.0 |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.78 e 4 | 5.33 e 4 | 0.241 | 0.709 | 4.92 | 4.85 | 8.87 | 38.3935 | 74.1 |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 4.31 e 4 | 5.52 e 4 | 0.241 | 0.780 | 5.25 | 5.18 | 9.75 | 41.1129 | 79.4 |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ |  | 9.31 e 3 | 0.241 |  | 4.98 |  |  |  |  |  |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00 e 0 | 9.31 e3 | 0.241 |  | 5.07 |  | 0.000 |  |  |  |  |
| 36 | 23 L-EtFOSAA | $584.1>419$ |  | 1.05 e 4 | 0.241 |  | 5.24 |  |  |  |  |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-34.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:32:09 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:32:25 Pacific Daylight Time |

Name: 180818M2_34, Date: 18-Aug-2018, Time: 20:57:47, ID: 1802055-13 Charlies Pasture-DW-072518 0.24128, Description: Charlies Pasture-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 1.05 e 4 | 0.241 |  | 5.23 |  | 0.000 |  |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ |  | 4.69 e 3 | 0.241 |  | 5.30 |  |  |  |  |  |  |
| 39 | 50 d3-N-MeFOSAA | $573.3>419$ | 9.31 e 3 | 5.52 e 4 | 0.241 | 0.169 | 5.08 | 5.00 | 2.11 | 36.1789 | 69.8 |  |  |
| 40 | 50 d3-N-MeFOSAA | $573.3>419$ | 9.31 e 3 | 5.52 e 4 | 0.241 | 0.169 | 5.08 | 5.00 | 2.11 | 36.1789 | 69.8 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 1.05 e 4 | 5.52 e 4 | 0.241 | 0.191 | 5.23 | 5.16 | 2.39 | 37.7361 | 72.8 |  |  |
| 42 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 1.05 e 4 | 5.52 e 4 | 0.241 | 0.191 | 5.23 | 5.16 | 2.39 | 37.7361 | 72.8 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 4.31 e 4 | 5.52e4 | 0.241 | 0.780 | 5.25 | 5.18 | 9.75 | 41.1129 | 79.4 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ |  | 4.65 e 4 | 0.241 |  | 5.54 |  |  |  |  |  |  |
| 46 | 29 PFTrDA | $662.9>618.9$ |  | 4.65 e 4 | 0.241 |  | 5.79 |  |  |  |  |  |  |
| 47 | 30 PFTeDA | $712.8>669.0$ | 7.80 e 1 | 3.81 e 4 | 0.241 | 0.000 | 6.01 | 5.96 | 0.0256 | 0.1314 |  | 16.282 | YES |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.241 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. > 172 | 2.68 e 4 | 2.68 e 4 | 0.241 | 1.00 | 1.15 | 1.07 | 12.5 | 51.8070 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 4.65 e 4 | 5.33 e 4 | 0.241 | 0.873 | 5.54 | 5.47 | 10.9 | 41.7606 | 80.6 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 4.65 e 4 | 5.33 e 4 | 0.241 | 0.873 | 5.54 | 5.47 | 10.9 | 41.7606 | 80.6 |  |  |
| 52 | 55 13C2-PFTeDA | $714.8>669.6$ | 3.81 e 4 | 5.52 e 4 | 0.241 | 0.689 | 6.01 | 5.96 | 8.62 | 45.9736 | 88.7 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 4.69 e 3 | 5.24 e 3 | 0.241 | 0.894 | 4.63 | 4.55 | 11.2 | 44.0240 | 85.0 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 4.85 e 3 | 4.85 e 3 | 0.241 | 1.00 | 3.72 | 3.64 | 12.5 | 51.8070 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 5.33 e 4 | 5.33 e 4 | 0.241 | 1.00 | 4.92 | 4.85 | 12.5 | 51.8070 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 5.52 e 4 | 5.52 e 4 | 0.241 | 1.00 | 5.25 | 5.18 | 12.5 | 51.8070 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 5.24 e 3 | 5.24 e 3 | 0.241 | 1.00 | 4.63 | 4.55 | 12.5 | 51.8070 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | $472.2>426.9$ | 4.81 e 4 | 4.81 e 4 | 0.241 | 1.00 | 4.54 | 4.46 | 12.5 | 51.8070 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.59 e 4 | 4.59 e 4 | 0.241 | 1.00 | 2.95 | 2.86 | 12.5 | 51.8070 | 100.0 |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-34.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:32:09 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:32:25 Pacific Daylight Time |

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_34, Date: 18-Aug-2018, Time: 20:57:47, ID: 1802055-13 Charlies Pasture-DW-072518 0.24128, Description: Charlies Pasture-DW-072518


## 13C3-PFBA

F3:MRM of 1 channel,ES-
$216.1>171.8$
$2.993 \mathrm{e}+005$



## 13C3-PFPeA





## 13C2-PFHxA




## 13C4-PFHpA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-34.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:32:09 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:32:25 Pacific Daylight Time |

Name: 180818M2_34, Date: 18-Aug-2018, Time: 20:57:47, ID: 1802055-13 Charlies Pasture-DW-072518 0.24128, Description: Charlies Pasture-DW-072518

## L-PFHxS

F18:MRM of 2 channels,ES-

F18:MRM of 2 channels,ES- | 398.9 79.6 |
| ---: |
| $1.411 \mathrm{e}+006$ |



1802-PFHxS



## 1802-PFHxS



## L-PFOA




13C2-PFOA




## 13C2-PFOA




F30:MRM of 2 channels,ES-
$498>169$
$2.416 e+003$


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-34.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:32:09 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:32:25 Pacific Daylight Time |

Name: 180818M2_34, Date: 18-Aug-2018, Time: 20:57:47, ID: 1802055-13 Charlies Pasture-DW-072518 0.24128, Description: Charlies Pasture-DW-072518

| PFNA |  |
| :---: | :---: |
|  | F27:MRM of 2 channels,ES- |
|  | $463.0>418.8$ |
| 100 |  |

## L-PFOS



## 13C8-PFOS





13C8-PFOS




## 13C2-PFDA




| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-34.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:32:09 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:32:25 Pacific Daylight Time |

Name: 180818M2_34, Date: 18-Aug-2018, Time: 20:57:47, ID: 1802055-13 Charlies Pasture-DW-072518 0.24128, Description: Charlies Pasture-DW-072518

## L-MeFOSAA




## d3-N-MeFOSAA







d5-N-EtFOSAA



F51:MRM of 2 channels,ES$584.1>526$


## d5-N-EtFOSAA



PFDS


## 13C2-PFUdA

F47:MRM of 1 channel,ES$565>519.8$

Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-34.qld
Last Altered: Tuesday, August 21, 2018 12:32:09 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 12:32:25 Pacific Daylight Time

Name: 180818M2_34, Date: 18-Aug-2018, Time: 20:57:47, ID: 1802055-13 Charlies Pasture-DW-072518 0.24128, Description: Charlies Pasture-DW-072518

## PFDoA <br> 



## 13C2-PFDoA

F55:MRM of 2 channels,ES$615.0>569.7$ $1.085 \mathrm{e}+006$






13C2-PFTeDA
F62:MRM of 2 channels,ES-
$714.8>669.6$ $9.131 e+005$



## 13C8-PFOS

F35:MRM of 1 channel,ES$507.0>79.9$ $1.141 e+005$


13C4-PFBA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-34.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:32:09 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:32:25 Pacific Daylight Time |

Name: 180818M2_34, Date: 18-Aug-2018, Time: 20:57:47, ID: 1802055-13 Charlies Pasture-DW-072518 0.24128, Description: Charlies Pasture-DW-072518


## 13C4-PFOS <br> F33:MRM of 1 channel,ES$503>79.9$ $1.241 \mathrm{e}+005$ <br> 



13C5-PFHxA
F11:MRM of 1 channel,ES$318>272.9$ $1.074 \mathrm{e}+006$

## Dataset: Z:|Projects|PFAS.PRO\Results\180818M2\180818M2-35.qld

Last Altered: Tuesday, August 21, 2018 12:35:08 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 12:35:28 Pacific Daylight Time

Name: 180818M2_35, Date: 18-Aug-2018, Time: 21:08:34, ID: 1802055-14 Charlies Pasture-FB-072518 0.23717, Description: Charlies Pasture-FB-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ | 1.29 e 2 | 1.96 e 4 | 0.237 | 0.000 | 1.08 | 1.08 | 0.0820 | 0.4108 |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 2.77e4 | 0.237 |  | 2.04 |  |  |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ | 1.75 e 0 | 2.97e3 | 0.237 | 0.000 | 2.34 | 2.35 | 0.00734 | 0.3180 |  | 0.557 | YES |
| 4 | 5 PFHxA | $313>269$ |  | 1.73 e 4 | 0.237 |  | 2.86 |  |  |  |  |  |  |
| 5 | 7 PFHpA | $363.0>318.9$ |  | 2.46 e 4 | 0.237 |  | 3.48 |  |  |  |  |  |  |
| 6 | 36 13C3-PFBA | $216.1>171.8$ | 1.96 e 4 | 2.62 e 4 | 0.237 | 0.749 | 1.16 | 1.08 | 9.36 | 48.0041 | 91.1 |  |  |
| 7 | 37 13C3-PFPeA | $266 .>221.8$ | 2.77 e 4 | 4.86 e 4 | 0.237 | 0.571 | 2.14 | 2.04 | 7.13 | 61.8836 | 117.4 |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 2.97 e 3 | 4.86 e 4 | 0.237 | 0.0612 | 2.44 | 2.34 | 0.765 | 64.1707 | 121.8 |  |  |
| 9 | 40 13C2-PFHxA | $315>270$ | 1.73 e 4 | 4.86 e 4 | 0.237 | 0.893 | 2.95 | 2.86 | 4.47 | 19.3226 | 91.7 |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.46 e 4 | 4.86 e 4 | 0.237 | 0.507 | 3.56 | 3.48 | 6.34 | 43.6446 | 82.8 |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 1.49 e 1 | 2.42 e 3 | 0.237 | 0.000 | 3.51 | 3.63 | 0.0769 | 0.2463 |  | 1.269 | NO |
| 13 | 68 Total PFHxS | $398.9>79.6$ | 1.49 e 1 | 2.42 e 3 | 0.237 |  | 3.65 |  | 0.0769 | 0.2463 |  |  |  |
| 14 | 11 L-PFOA | $412.9>368.9$ | 3.46 e 2 | 3.76 e 4 | 0.237 | 0.000 | 4.00 | 4.01 | 0.115 | 0.3392 |  | 2.680 | NO |
| 15 | 69 Total PFOA | $412.9>368.9$ | 3.46 e 2 | 3.76 e4 | 0.237 |  | 4.48 |  | 0.115 | 0.3392 |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ |  | 3.83 e 3 | 0.237 |  | 4.60 |  |  |  |  |  |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.42 e 3 | 5.68 e 3 | 0.237 | 0.426 | 3.72 | 3.64 | 5.32 | 46.4107 | 88.1 |  |  |
| 18 | 42 1802-PFHxS | $403.0>102.6$ | 2.42 e 3 | 5.68 e 3 | 0.237 | 0.426 | 3.72 | 3.64 | 5.32 | 46.4107 | 88.1 |  |  |
| 19 | 44 13C2-PFOA | $414.9>369.7$ | 3.76 e 4 | 5.20 e 4 | 0.237 | 0.724 | 4.09 | 4.01 | 9.04 | 46.4617 | 88.2 |  |  |
| 20 | 44 13C2-PFOA | $414.9>369.7$ | 3.76 e 4 | 5.20 e 4 | 0.237 | 0.724 | 4.09 | 4.01 | 9.04 | 46.4617 | 88.2 |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 3.83 e 3 | 5.21 e 4 | 0.237 | 0.0736 | 4.60 | 4.52 | 0.920 | 22.0831 | 41.9 |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | $463.0>418.8$ |  | 3.73 e 4 | 0.237 |  | 4.54 |  |  |  |  |  |  |
| 24 | 16 L-PFOS | $498.9>79.9$ | 3.36 e 0 | 6.06e3 | 0.237 | 0.000 | 4.63 | 4.44 | 0.00693 | 0.1449 |  | 0.762 | YES |
| 25 | 70 Total PFOS | $498.9>79.9$ | 3.36 e 0 | 6.06e3 | 0.237 |  | 4.60 |  | 0.00693 | 0.1449 |  |  |  |
| 26 | 18 PFDA | $513>468.8$ | 6.62 e 1 | 3.19 e 4 | 0.237 | 0.000 | 4.92 | 4.84 | 0.0259 | 0.1266 |  | 10.442 | YES |
| 27 | 25 PFUdA | $563.0>518.9$ | 9.03 e 1 | 3.48 e 4 | 0.237 | 0.000 | 5.25 | 5.18 | 0.0324 | 0.0450 |  | 51.388 | YES |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.73 e 4 | 4.70 e 4 | 0.237 | 0.793 | 4.54 | 4.46 | 9.92 | 42.9789 | 81.5 |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 6.06 e 3 | 6.43 e 3 | 0.237 | 0.942 | 4.63 | 4.55 | 11.8 | 47.2121 | 89.6 |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 6.06 e 3 | 6.43 e 3 | 0.237 | 0.942 | 4.63 | 4.55 | 11.8 | 47.2121 | 89.6 |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.19 e 4 | 5.09 e 4 | 0.237 | 0.627 | 4.92 | 4.85 | 7.83 | 34.5018 | 65.5 |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 3.48 e 4 | 5.21 e 4 | 0.237 | 0.668 | 5.25 | 5.18 | 8.35 | 35.8266 | 68.0 |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ |  | 7.72 e 3 | 0.237 |  | 4.98 |  |  |  |  |  |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00 e 0 | 7.72 e 3 | 0.237 |  | 5.07 |  | 0.000 |  |  |  |  |
| 36 | 23 L-EtFOSAA | $584.1>419$ |  | 8.57e3 | 0.237 |  | 5.24 |  |  |  |  |  |  |

Name: 180818M2_35, Date: 18-Aug-2018, Time: 21:08:34, ID: 1802055-14 Charlies Pasture-FB-072518 0.23717, Description: Charlies Pasture-FB-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 8.57e3 | 0.237 |  | 5.23 |  | 0.000 |  |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ |  | 6.06 e 3 | 0.237 |  | 5.30 |  |  |  |  |  |  |
| 39 | 50 d3-N-MeFOSAA | $573.3>419$ | 7.72 e 3 | 5.21 e 4 | 0.237 | 0.148 | 5.08 | 5.00 | 1.85 | 32.3715 | 61.4 |  |  |
| 40 | 50 d3-N-MeFOSAA | $573.3>419$ | 7.72e3 | 5.21 e 4 | 0.237 | 0.148 | 5.08 | 5.00 | 1.85 | 32.3715 | 61.4 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 8.57 e 3 | 5.21 e 4 | 0.237 | 0.165 | 5.23 | 5.16 | 2.06 | 33.1085 | 62.8 |  |  |
| 42 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 8.57 e 3 | 5.21 e 4 | 0.237 | 0.165 | 5.23 | 5.16 | 2.06 | 33.1085 | 62.8 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 3.48 e 4 | 5.21 e 4 | 0.237 | 0.668 | 5.25 | 5.18 | 8.35 | 35.8266 | 68.0 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ |  | 3.66 e 4 | 0.237 |  | 5.54 |  |  |  |  |  |  |
| 46 | 29 PFTrDA | $662.9>618.9$ |  | 3.66 e 4 | 0.237 |  | 5.79 |  |  |  |  |  |  |
| 47 | 30 PFTeDA | $712.8>669.0$ | 7.08 e 1 | 3.02 e 4 | 0.237 | 0.000 | 6.01 | 5.96 | 0.0293 | 0.1458 |  | 21.533 | YES |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.237 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. $>172$ | 2.62 e 4 | 2.62 e 4 | 0.237 | 1.00 | 1.15 | 1.07 | 12.5 | 52.7048 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 3.66 e 4 | 5.09 e 4 | 0.237 | 0.718 | 5.54 | 5.47 | 8.98 | 34.9607 | 66.3 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 3.66 e 4 | 5.09 e 4 | 0.237 | 0.718 | 5.54 | 5.47 | 8.98 | 34.9607 | 66.3 |  |  |
| 52 | 55 13C2-PFTeDA | $714.8>669.6$ | 3.02 e 4 | 5.21 e 4 | 0.237 | 0.580 | 6.01 | 5.96 | 7.25 | 39.3596 | 74.7 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 6.06 e 3 | 6.43 e 3 | 0.237 | 0.942 | 4.63 | 4.55 | 11.8 | 47.2121 | 89.6 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 5.68 e 3 | 5.68 e 3 | 0.237 | 1.00 | 3.72 | 3.64 | 12.5 | 52.7048 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 5.09 e 4 | 5.09 e 4 | 0.237 | 1.00 | 4.92 | 4.85 | 12.5 | 52.7048 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 5.21 e 4 | 5.21 e 4 | 0.237 | 1.00 | 5.25 | 5.18 | 12.5 | 52.7048 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 6.43 e 3 | 6.43 e 3 | 0.237 | 1.00 | 4.63 | 4.55 | 12.5 | 52.7048 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | $472.2>426.9$ | 4.70 e 4 | 4.70 e 4 | 0.237 | 1.00 | 4.54 | 4.46 | 12.5 | 52.7048 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.86 e 4 | 4.86 e 4 | 0.237 | 1.00 | 2.95 | 2.86 | 12.5 | 52.7048 | 100.0 |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-35.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:35:08 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:35:28 Pacific Daylight Time |

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_35, Date: 18-Aug-2018, Time: 21:08:34, ID: 1802055-14 Charlies Pasture-FB-072518 0.23717, Description: Charlies Pasture-FB-072518



13C3-PFBA
F3:MRM of 1 channel,ES-
$216.1>171.8$
$3.284 \mathrm{e}+005$




PFBS



## 13C3-PFBS




## 13C2-PFHxA




## 13C4-PFHpA


Dataset: Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-35.qld

Last Altered: Tuesday, August 21, 2018 12:35:08 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 12:35:28 Pacific Daylight Time

Name: 180818M2_35, Date: 18-Aug-2018, Time: 21:08:34, ID: 1802055-14 Charlies Pasture-FB-072518 0.23717, Description: Charlies Pasture-FB-072518

## L-PFHxS

F18:MRM of 2 channels,ES-



## 1802-PFHxS



## Total PFHxS

F18:MRM of 2 channels,ES

| F18:MRM of 2 channels,ES- |  |  |
| :---: | :---: | :---: |
| 100 |  | $\begin{array}{r} 398.9>79.6 \\ 4.503 \mathrm{e}+002 \end{array}$ |
|  | L-PFHxS |  |
|  | 3.63 |  |
|  | 1.49 e 1 |  |
| \%- | 450 |  |
|  | bb |  |
|  | 450.00 |  |
|  |  |  |



## 1802-PFHxS



L-PFOA


13C2-PFOA




## 13C2-PFOA



PFOSA

| F30:MRM of 2 channels, ES- |
| ---: |
| $498>77.9$ |
| $1.000 \mathrm{e}-003$ |



## 13C8-PFOSA

## Dataset: Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-35.qld

Last Altered: Tuesday, August 21, 2018 12:35:08 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 12:35:28 Pacific Daylight Time

Name: 180818M2_35, Date: 18-Aug-2018, Time: 21:08:34, ID: 1802055-14 Charlies Pasture-FB-072518 0.23717, Description: Charlies Pasture-FB-072518



## 13C5-PFNA





## 13C8-PFOS





13C8-PFOS




13C2-PFDA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-35.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:35:08 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:35:28 Pacific Daylight Time |

Name: 180818M2_35, Date: 18-Aug-2018, Time: 21:08:34, ID: 1802055-14 Charlies Pasture-FB-072518 0.23717, Description: Charlies Pasture-FB-072518

## L-MeFOSAA

F48:MRM of 2 channels,ES- | $570>419$ |
| ---: |
| 5.797 |


d3-N-MeFOSAA


F48:MRM of 2 channels,ES-


d5-N-EtFOSAA




Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-35.qld
Last Altered: Tuesday, August 21, 2018 12:35:08 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 21, 2018 12:35:28 Pacific Daylight Time

Name: 180818M2_35, Date: 18-Aug-2018, Time: 21:08:34, ID: 1802055-14 Charlies Pasture-FB-072518 0.23717, Description: Charlies Pasture-FB-072518

## PFDoA <br> F54:MRM of 4 channels,ES- $612.9>569.0$ $7.639 e+002$

F54:MRM of 4 channels,ES-


13C2-PFDoA







13C2-PFTeDA
F62:MRM of 2 channels,ES$714.8>669.6$ $7.270 \mathrm{e}+005$



13C8-PFOS


13C4-PFBA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-35.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:35:08 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:35:28 Pacific Daylight Time |

Name: 180818M2_35, Date: 18-Aug-2018, Time: 21:08:34, ID: 1802055-14 Charlies Pasture-FB-072518 0.23717, Description: Charlies Pasture-FB-072518


## 13C4-PFOS <br> F33:MRM of 1 channel,ES channel,ES- $503>79.9$ $1.650 \mathrm{e}+005$




## Dataset: <br> Z:IProjectsIPFAS.PRO\Results\180818M2\180818M2-38.qld

Last Altered: Tuesday, August 21, 2018 12:37:43 Pacific Daylight Time Printed: Tuesday, August 21, 2018 12:38:06 Pacific Daylight Time

Name: 180818M2_38, Date: 18-Aug-2018, Time: 21:40:41, ID: 1802055-15 Shooting Range 1-DW-072518 0.24283, Description: Shooting Range 1-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ | 2.13 e4 | 2.01 e4 | 0.243 | 0.000 | 1.08 | 1.08 | 13.2 | 47.3839 |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ | 6.10 e 4 | 2.83 e 4 | 0.243 | 0.000 | 2.04 | 2.04 | 26.9 | 116.1971 |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ | 3.29 e 3 | 3.42 e 3 | 0.243 | 0.000 | 2.33 | 2.34 | 12.0 | 24.9029 |  | 2.785 | NO |
| 4 | 5 PFHxA | $313>269$ | 1.29 e 5 | 1.72 e 4 | 0.243 | 0.000 | 2.86 | 2.86 | 37.4 | 160.4903 |  | 15.343 | NO |
| 5 | 7 PFHpA | $363.0>318.9$ | 3.03 e 4 | 2.63 e 4 | 0.243 | 0.000 | 3.48 | 3.48 | 14.4 | 53.0766 |  | 22.588 | NO |
| 6 | 36 13C3-PFBA | $216.1>171.8$ | 2.01 e 4 | 2.87 e 4 | 0.243 | 0.701 | 1.16 | 1.08 | 8.76 | 43.8926 | 85.3 |  |  |
| 7 | 37 13C3-PFPeA | 266. > 221.8 | 2.83 e 4 | 5.25 e 4 | 0.243 | 0.540 | 2.14 | 2.04 | 6.75 | 57.1994 | 111.1 |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 3.42 e 3 | 5.25e4 | 0.243 | 0.0651 | 2.44 | 2.33 | 0.814 | 66.6648 | 129.5 |  |  |
| 9 | 40 13C2-PFHXA | $315>270$ | 1.72 e 4 | 5.25 e 4 | 0.243 | 0.819 | 2.95 | 2.86 | 4.10 | 17.3139 | 84.1 |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.63 e 4 | 5.25 e 4 | 0.243 | 0.501 | 3.56 | 3.48 | 6.26 | 42.1403 | 81.9 |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 1.45 e 4 | 2.59 e 3 | 0.243 | 0.000 | 3.51 | 3.64 | 70.1 | 165.8559 |  | 1.803 | NO |
| 13 | 68 Total PFHxS | $398.9>79.6$ | 1.45 e 4 | 2.59 e 3 | 0.243 |  | 3.65 |  | 70.1 | 165.8559 |  |  |  |
| 14 | 11 L-PFOA | 412.9 > 368.9 | 4.99 e 4 | 4.18 e 4 | 0.243 | 0.000 | 4.00 | 4.01 | 14.9 | 60.8582 |  | 2.417 | NO |
| 15 | 69 Total PFOA | 412.9 > 368.9 | 4.99 e 4 | 4.18 e 4 | 0.243 |  | 4.48 |  | 14.9 | 60.8582 |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ |  | 5.06 e 3 | 0.243 |  | 4.60 |  |  |  |  |  |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.59 e3 | 6.55e3 | 0.243 | 0.396 | 3.72 | 3.64 | 4.95 | 42.1392 | 81.9 |  |  |
| 18 | 42 1802-PFHxS | 403.0 > 102.6 | 2.59 e 3 | 6.55 e 3 | 0.243 | 0.396 | 3.72 | 3.64 | 4.95 | 42.1392 | 81.9 |  |  |
| 19 | 44 13C2-PFOA | 414.9 > 369.7 | 4.18 e 4 | 6.09 e 4 | 0.243 | 0.686 | 4.09 | 4.01 | 8.57 | 43.0203 | 83.6 |  |  |
| 20 | 44 13C2-PFOA | $414.9>369.7$ | 4.18 e 4 | 6.09 e 4 | 0.243 | 0.686 | 4.09 | 4.01 | 8.57 | 43.0203 | 83.6 |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 5.06 e 3 | 6.29 e 4 | 0.243 | 0.0804 | 4.60 | 4.52 | 1.01 | 23.5764 | 45.8 |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | 463.0 > 418.8 | 3.61e3 | 4.32 e 4 | 0.243 | 0.000 | 4.54 | 4.46 | 1.04 | 3.7544 |  | 5.194 | NO |
| 24 | 16 L-PFOS | $498.9>79.9$ | 7.03 e 3 | 6.62 e 3 | 0.243 | 0.000 | 4.63 | 4.55 | 13.3 | 59.2493 |  | 1.823 | NO |
| 25 | 70 Total PFOS | 498.9 > 79.9 | 7.03 e3 | 6.62 e 3 | 0.243 |  | 4.60 |  | 13.3 | 59.2493 |  |  |  |
| 26 | 18 PFDA | $513>468.8$ | 1.25 e 2 | 3.90 e4 | 0.243 | 0.000 | 4.92 | 4.85 | 0.0400 | 0.1701 |  | 12.477 | YES |
| 27 | 25 PFUdA | $563.0>518.9$ | 1.13 e 2 | 4.52 e 4 | 0.243 | 0.000 | 5.25 | 5.19 | 0.0314 | 0.0394 |  | 10.995 | NO |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 4.32 e 4 | 5.66 e 4 | 0.243 | 0.763 | 4.54 | 4.46 | 9.54 | 40.3914 | 78.5 |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 6.62e3 | 7.57 e 3 | 0.243 | 0.875 | 4.63 | 4.55 | 10.9 | 42.8213 | 83.2 |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 6.62 e3 | 7.57 e 3 | 0.243 | 0.875 | 4.63 | 4.55 | 10.9 | 42.8213 | 83.2 |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.90 e 4 | 5.95 e 4 | 0.243 | 0.655 | 4.92 | 4.85 | 8.19 | 35.2463 | 68.5 |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 4.52 e 4 | 6.29 e 4 | 0.243 | 0.720 | 5.25 | 5.18 | 9.00 | 37.6838 | 73.2 |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ |  | 1.08 e 4 | 0.243 |  | 4.98 |  |  |  |  |  |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00 e 0 | 1.08 e 4 | 0.243 |  | 5.07 |  | 0.000 |  |  |  |  |
| 36 | 23 L-EtFOSAA | $584.1>419$ |  | 1.19 e 4 | 0.243 |  | 5.24 |  |  |  |  |  |  |

Name: 180818M2_38, Date: 18-Aug-2018, Time: 21:40:41, ID: 1802055-15 Shooting Range 1-DW-072518 0.24283, Description: Shooting Range 1-DW-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 1.19e4 | 0.243 |  | 5.23 |  | 0.000 |  |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ |  | 6.62e3 | 0.243 |  | 5.30 |  |  |  |  |  |  |
| 39 | 50 d3-N-MeFOSAA | $573.3>419$ | 1.08 e 4 | 6.29 e 4 | 0.243 | 0.172 | 5.08 | 5.00 | 2.15 | 36.7139 | 71.3 |  |  |
| 40 | 50 d3-N-MeFOSAA | $573.3>419$ | 1.08 e 4 | 6.29 e 4 | 0.243 | 0.172 | 5.08 | 5.00 | 2.15 | 36.7139 | 71.3 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 1.19 e 4 | 6.29 e 4 | 0.243 | 0.189 | 5.23 | 5.16 | 2.36 | 37.0737 | 72.0 |  |  |
| 42 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 1.19 e 4 | 6.29 e 4 | 0.243 | 0.189 | 5.23 | 5.16 | 2.36 | 37.0737 | 72.0 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 4.52 e 4 | 6.29 e 4 | 0.243 | 0.720 | 5.25 | 5.18 | 9.00 | 37.6838 | 73.2 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ |  | 4.60 e 4 | 0.243 |  | 5.54 |  |  |  |  |  |  |
| 46 | 29 PFTrDA | $662.9>618.9$ |  | 4.60 e 4 | 0.243 |  | 5.79 |  |  |  |  |  |  |
| 47 | 30 PFTeDA | $712.8>669.0$ | 7.59 e 1 | 3.96 e 4 | 0.243 | 0.000 | 6.01 | 5.96 | 0.0239 | 0.1251 |  | 7.851 | YES |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.243 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. > 172 | 2.87 e 4 | 2.87 e 4 | 0.243 | 1.00 | 1.15 | 1.07 | 12.5 | 51.4763 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 4.60 e 4 | 5.95 e 4 | 0.243 | 0.772 | 5.54 | 5.47 | 9.66 | 36.7227 | 71.3 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 4.60 e 4 | 5.95e4 | 0.243 | 0.772 | 5.54 | 5.47 | 9.66 | 36.7227 | 71.3 |  |  |
| 52 | 55 13C2-PFTeDA | $714.8>669.6$ | 3.96 e 4 | 6.29 e 4 | 0.243 | 0.631 | 6.01 | 5.96 | 7.88 | 41.7787 | 81.2 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 6.62 e 3 | 7.57 e 3 | 0.243 | 0.875 | 4.63 | 4.55 | 10.9 | 42.8213 | 83.2 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 6.55 e 3 | 6.55 e 3 | 0.243 | 1.00 | 3.72 | 3.64 | 12.5 | 51.4763 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 5.95 e 4 | 5.95 e 4 | 0.243 | 1.00 | 4.92 | 4.85 | 12.5 | 51.4763 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 6.29 e 4 | 6.29 e 4 | 0.243 | 1.00 | 5.25 | 5.18 | 12.5 | 51.4763 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 7.57 e 3 | 7.57 e 3 | 0.243 | 1.00 | 4.63 | 4.55 | 12.5 | 51.4763 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | $472.2>426.9$ | 5.66 e 4 | 5.66 e 4 | 0.243 | 1.00 | 4.54 | 4.46 | 12.5 | 51.4763 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 5.25 e 4 | 5.25 e 4 | 0.243 | 1.00 | 2.95 | 2.86 | 12.5 | 51.4763 | 100.0 |  |  |


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-38.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:37:43 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:38:06 Pacific Daylight Time |

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:|Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_38, Date: 18-Aug-2018, Time: 21:40:41, ID: 1802055-15 Shooting Range 1-DW-072518 0.24283, Description: Shooting Range 1-DW-072518


## 13C3-PFBA

F3:MRM of 1 channel,ES-
$216.1>171.8$
$3.222 \mathrm{e}+005$



## 13C3-PFPeA




## 13C3-PFBS




## 13C2-PFHxA




## 13C4-PFHpA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-38.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:37:43 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:38:06 Pacific Daylight Time |

Name: 180818M2_38, Date: 18-Aug-2018, Time: 21:40:41, ID: 1802055-15 Shooting Range 1-DW-072518 0.24283, Description: Shooting Range 1-DW-072518

## L-PFHxS

F18:MRM of 2 channels,ES-


F18:MRM of 2 channels,ES-


1802-PFHxS


## L-PFOA




13C2-PFOA




## 13C2-PFOA



PFOSA


F30:MRM of 2 channels,ES-
498 > 169

Dataset:
Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-38.qld
Last Altered: Tuesday, August 21, 2018 12:37:43 Pacific Daylight Time
Printed: Tuesday, August 21, 2018 12:38:06 Pacific Daylight Time

Name: 180818M2_38, Date: 18-Aug-2018, Time: 21:40:41, ID: 1802055-15 Shooting Range 1-DW-072518 0.24283, Description: Shooting Range 1-DW-072518

| PFNA |  |
| :---: | :---: |
|  | F27:MRM of 2 channels,ES- |
|  | $463.0>418.8$ |
| 100 |  |



## 13C5-PFNA





13C8-PFOS




13C8-PFOS




## 13C2-PFDA




| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-38.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:37:43 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:38:06 Pacific Daylight Time |

Name: 180818M2_38, Date: 18-Aug-2018, Time: 21:40:41, ID: 1802055-15 Shooting Range 1-DW-072518 0.24283, Description: Shooting Range 1-DW-072518

## L-MeFOSAA <br> F48:MRM of 2 channels,ES- <br> 



## d3-N-MeFOSAA







d5-N-EtFOSAA



F51:MRM of 2 channels,ES$584.1>526$ $1.000 \mathrm{e}-003$


## d5-N-EtFOSAA

F52:MRM of 1 channel,ES$589.3>419$ $2.978 \mathrm{e}+005$


PFDS |  |
| ---: | :--- |
| F53:MRM of 2 channels,ES- |
| $598.8>79.9$ |
| $1.000 \mathrm{e}-003$ |



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-38.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:37:43 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:38:06 Pacific Daylight Time |

Name: 180818M2_38, Date: 18-Aug-2018, Time: 21:40:41, ID: 1802055-15 Shooting Range 1-DW-072518 0.24283, Description: Shooting Range 1-DW-072518

\section*{PFDoA <br> P5FDOA:MRM of 4 channels,ES- | $612.9>569.0$ |
| ---: |
| $1.305 \mathrm{e}+003$ |}



## 13C2-PFDoA

F55:MRM of 2 channels,ES$615.0>569.7$ $1.075 \mathrm{e}+006$






F61:MRM of 2 channels,ES$712.8>368.9$


13C2-PFTeDA



13C8-PFOS


13C4-PFBA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-38.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 12:37:43 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 12:38:06 Pacific Daylight Time |

Name: 180818M2_38, Date: 18-Aug-2018, Time: 21:40:41, ID: 1802055-15 Shooting Range 1-DW-072518 0.24283, Description: Shooting Range 1-DW-072518


## 13C4-PFOS <br> F33:MRM of 1 channel,ES- <br> 1 channel,ES- $503>79.9$ $1.912 \mathrm{e}+005$




| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-39.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:56:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:57:15 Pacific Daylight Time |

Name: 180818M2_39, Date: 18-Aug-2018, Time: 21:51:28, ID: 1802055-16 Shooting Range 1-FB-072518 0.23819, Description: Shooting Range 1-FB-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ |  | 1.95e4 | 0.238 |  | 1.08 |  |  |  |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 2.76 e 4 | 0.238 |  | 2.04 |  |  |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ | 2.61 e0 | 2.98 e 3 | 0.238 | 0.000 | 2.34 | 2.35 | 0.0109 | 0.3242 |  | 0.516 | YES |
| 4 | 5 PFHxA | $313>269$ |  | 1.69 e 4 | 0.238 |  | 2.86 |  |  |  |  |  |  |
| 5 | 7 PFHpA | $363.0>318.9$ |  | $2.46 e 4$ | 0.238 |  | 3.49 |  |  |  |  |  |  |
| 6 | 36 13C3-PFBA | $216.1>171.8$ | 1.95 e 4 | 2.53 e 4 | 0.238 | 0.770 | 1.16 | 1.08 | 9.62 | 49.1551 | 93.7 |  |  |
| 7 | 37 13C3-PFPeA | 266. $>221.8$ | 2.76 e4 | 4.60 e 4 | 0.238 | 0.601 | 2.14 | 2.04 | 7.52 | 64.9481 | 123.8 |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 2.98 e 3 | 4.60 e 4 | 0.238 | 0.0648 | 2.44 | 2.34 | 0.810 | 67.6118 | 128.8 |  |  |
| 9 | 40 13C2-PFHxA | $315>270$ | 1.69 e 4 | 4.60 e 4 | 0.238 | 0.919 | 2.95 | 2.86 | 4.59 | 19.7955 | 94.3 |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.46 e 4 | 4.60e4 | 0.238 | 0.536 | 3.56 | 3.49 | 6.69 | 45.9164 | 87.5 |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 7.13 eo | 2.42 e 3 | 0.238 | 0.000 | 3.52 | 3.64 | 0.0368 | 0.1481 |  | 0.512 | YES |
| 13 | 68 Total PFHxS | $398.9>79.6$ | 7.13 e 0 | 2.42 e 3 | 0.238 |  | 3.65 |  | 0.0368 | 0.1481 |  |  |  |
| 14 | 11 L-PFOA | $412.9>368.9$ | 3.54 e 2 | 3.70 e 4 | 0.238 | 0.000 | 4.00 | 4.02 | 0.120 | 0.3578 |  | 3.977 | YES |
| 15 | 69 Total PFOA | $412.9>368.9$ | 3.54 e 2 | 3.70 e 4 | 0.238 |  | 4.48 |  | 0.120 | 0.3578 |  |  |  |
| 16 | 15 PFOSA | $498>77.9$ |  | 3.80e3 | 0.238 |  | 4.60 |  |  |  |  |  |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.42 e 3 | 5.39 e 3 | 0.238 | 0.449 | 3.72 | 3.64 | 5.61 | 48.7669 | 92.9 |  |  |
| 18 | 42 1802-PFHxS | $403.0>102.6$ | 2.42 e 3 | 5.39 e 3 | 0.238 | 0.449 | 3.72 | 3.64 | 5.61 | 48.7669 | 92.9 |  |  |
| 19 | 44 13C2-PFOA | $414.9>369.7$ | $3.70{ }^{\text {e }}$ | 4.99 e 4 | 0.238 | 0.742 | 4.09 | 4.01 | 9.28 | 47.4431 | 90.4 |  |  |
| 20 | 44 13C2-PFOA | $414.9>369.7$ | 3.70 e4 | 4.99 e 4 | 0.238 | 0.742 | 4.09 | 4.01 | 9.28 | 47.4431 | 90.4 |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 3.80 e 3 | 5.02e4 | 0.238 | 0.0757 | 4.60 | 4.52 | 0.946 | 22.6175 | 43.1 |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | $463.0>418.8$ |  | 3.72e4 | 0.238 |  | 4.54 |  |  |  |  |  |  |
| 24 | 16 L-PFOS | $498.9>79.9$ | 6.46 eO | 6.31 e 3 | 0.238 | 0.000 | 4.63 | 4.46 | 0.0128 | 0.1710 |  | 3.062 | YES |
| 25 | 70 Total PFOS | $498.9>79.9$ | 6.46 eO | 6.31 e 3 | 0.238 |  | 4.60 |  | 0.0128 | 0.1710 |  |  |  |
| 26 | 18 PFDA | $513>468.8$ |  | 3.27 e 4 | 0.238 |  | 4.92 |  |  |  |  |  |  |
| 27 | 25 PFUdA | $563.0>518.9$ | 8.56 e 1 | 3.44e4 | 0.238 | 0.000 | 5.25 | 5.19 | 0.0311 | 0.0392 |  | 12.184 | NO |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.72 e 4 | 4.64 e 4 | 0.238 | 0.801 | 4.54 | 4.47 | 10.0 | 43.2080 | 82.3 |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 6.31 e 3 | 6.13 e 3 | 0.238 | 1.03 | 4.63 | 4.55 | 12.9 | 51.3385 | 97.8 |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 6.31 e 3 | 6.13 e 3 | 0.238 | 1.03 | 4.63 | 4.55 | 12.9 | 51.3385 | 97.8 |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.27 e 4 | 4.77e4 | 0.238 | 0.686 | 4.92 | 4.85 | 8.58 | 37.6175 | 71.7 |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 3.44 e 4 | 5.02 e 4 | 0.238 | 0.684 | 5.25 | 5.19 | 8.56 | 36.5384 | 69.6 |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ |  | 7.69e3 | 0.238 |  | 4.98 |  |  |  |  |  |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00e0 | 7.69 e 3 | 0.238 |  | 5.07 |  | 0.000 |  |  |  |  |
| 36 | $23 \mathrm{~L}-\mathrm{EtFOSAA}$ | $584.1>419$ |  | 8.89e3 | 0.238 |  | 5.24 |  |  |  |  |  |  |

Work Order 1802055

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-39.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:56:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:57:15 Pacific Daylight Time |

Name: 180818M2_39, Date: 18-Aug-2018, Time: 21:51:28, ID: 1802055-16 Shooting Range 1-FB-072518 0.23819, Description: Shooting Range 1-FB-072518

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 8.89e3 | 0.238 |  | 5.23 |  | 0.000 |  |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ |  | 6.31 e 3 | 0.238 |  | 5.30 |  |  |  |  |  |  |
| 39 | 50 d3-N-MeFOSAA | $573.3>419$ | 7.69 e 3 | 5.02 e 4 | 0.238 | 0.153 | 5.08 | 5.00 | 1.91 | 33.2732 | 63.4 |  |  |
| 40 | 50 d3-N-MeFOSAA | $573.3>419$ | 7.69 e 3 | 5.02 e 4 | 0.238 | 0.153 | 5.08 | 5.00 | 1.91 | 33.2732 | 63.4 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 8.89 e 3 | 5.02 e 4 | 0.238 | 0.177 | 5.23 | 5.17 | 2.21 | 35.4586 | 67.6 |  |  |
| 42 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 8.89e3 | 5.02 e 4 | 0.238 | 0.177 | 5.23 | 5.17 | 2.21 | 35.4586 | 67.6 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 3.44 e 4 | 5.02 e 4 | 0.238 | 0.684 | 5.25 | 5.19 | 8.56 | 36.5384 | 69.6 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ | 4.42 e 1 | 3.58 e 4 | 0.238 | 0.000 | 5.54 | 5.48 | 0.0155 | 0.0757 |  | 7.660 | NO |
| 46 | 29 PFTrDA | $662.9>618.9$ |  | 3.58 e 4 | 0.238 |  | 5.79 |  |  |  |  |  |  |
| 47 | 30 PFTeDA | $712.8>669.0$ | 7.64 e 1 | 2.79 e 4 | 0.238 | 0.000 | 6.01 | 5.96 | 0.0342 | 0.1611 |  | 31.500 | YES |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.238 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. > 172 | 2.53 e 4 | 2.53 e 4 | 0.238 | 1.00 | 1.15 | 1.08 | 12.5 | 52.4791 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 3.58 e 4 | 4.77 e 4 | 0.238 | 0.750 | 5.54 | 5.48 | 9.37 | 36.3460 | 69.3 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 3.58 e 4 | 4.77 e 4 | 0.238 | 0.750 | 5.54 | 5.48 | 9.37 | 36.3460 | 69.3 |  |  |
| 52 | 55 13C2-PFTeDA | $714.8>669.6$ | 2.79 e 4 | 5.02 e 4 | 0.238 | 0.557 | 6.01 | 5.96 | 6.96 | 37.5955 | 71.6 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 6.31 e 3 | 6.13 e 3 | 0.238 | 1.03 | 4.63 | 4.55 | 12.9 | 51.3385 | 97.8 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 5.39 e 3 | 5.39 e 3 | 0.238 | 1.00 | 3.72 | 3.64 | 12.5 | 52.4791 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 4.77 e 4 | 4.77 e 4 | 0.238 | 1.00 | 4.92 | 4.85 | 12.5 | 52.4791 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 5.02 e 4 | 5.02 e 4 | 0.238 | 1.00 | 5.25 | 5.19 | 12.5 | 52.4791 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 6.13 e 3 | 6.13 e 3 | 0.238 | 1.00 | 4.63 | 4.55 | 12.5 | 52.4791 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | $472.2>426.9$ | 4.64 e 4 | 4.64 e 4 | 0.238 | 1.00 | 4.54 | 4.47 | 12.5 | 52.4791 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.60 e 4 | 4.60 e 4 | 0.238 | 1.00 | 2.95 | 2.86 | 12.5 | 52.4791 | 100.0 |  |  |

KBF 8/21/2018

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-39.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:56:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:57:15 Pacific Daylight Time |

Method: Z:\Projects\PFAS.pro\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:|Projects\PFAS.pro\CurveDB\C18_VAL-PFĀS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_39, Date: 18-Aug-2018, Time: 21:51:28, ID: 1802055-16 Shooting Range 1-FB-072518 0.23819, Description: Shooting Range 1-FB-072518


## 13C3-PFBA




## 13C3-PFPeA

F6:MRM of 1 channel,ES


PFBS


## 13C3-PFBS

F8:MRM of 1 channel,ES302. > 98.8 $8.000 \mathrm{e}+004$




## 13C2-PFHxA




## 13C4-PFHpA



| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-39.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:56:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:57:15 Pacific Daylight Time |

Name: 180818M2_39, Date: 18-Aug-2018, Time: 21:51:28, ID: 1802055-16 Shooting Range 1-FB-072518 0.23819, Description: Shooting Range 1-FB-072518

## L-PFHxS

F18:MRM of 2 channels,ES

|  |  | $398.9>79.6$ |
| :---: | :---: | :---: |
| 100 | L-PFHxS | $2.603 \mathrm{e}+002$ |
|  | 3.64 |  |
|  | 7.13e0 |  |
| \% | 260 |  |
|  | bb |  |
|  | 260.00 |  |
|  |  | T. min |



1802-PFHxS
F20:MRM of 1 channel,ES403.0 > 102.6 $6.835 \mathrm{e}+004$



1802-PFHxS


## L-PFOA



13C2-PFOA



## 13C2-PFOA




13C8-PFOSA
F34:MRM of 1 channel,ES $506.1>77.7$


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-39.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:56:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:57:15 Pacific Daylight Time |

Name: 180818M2_39, Date: 18-Aug-2018, Time: 21:51:28, ID: 1802055-16 Shooting Range 1-FB-072518 0.23819, Description: Shooting Range 1-FB-072518

## PFNA



13C5-PFNA



13C8-PFOS




13C8-PFOS



13C2-PFDA
F38:MRM of 1 channel,ES$515.1>469.9$


PFUdA


13C2-PFUdA
F47:MRM of 1 channel,ES$565>519.8$ $8.742 e+005$

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-39.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:56:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:57:15 Pacific Daylight Time |

Name: 180818M2_39, Date: 18-Aug-2018, Time: 21:51:28, ID: 1802055-16 Shooting Range 1-FB-072518 0.23819, Description: Shooting Range 1-FB-072518

## L-MeFOSAA

L-MeFOSAA
F48:MRM of 2 channels, ES-
$570>419$
$1.161 \mathrm{e}+002$

d3-N-MeFOSAA


## Total N-MeFOSAA <br> F48:MRM of 2 channels,ES- <br>  <br> F48:MRM of 2 channels,ES570. > 512 <br> 

d3-N-MeFOSAA
F50:MRM of 1 channel,ES-
$573.3>419$ $1.829 e+005$


## L-EtFOSAA

F51:MRM of 2 channels,ES-


F51:MRM of 2 channels,ES$584.1>526$

d5-N-EtFOSAA
F52:MRM of 1 channel,ES$589.3>419$ $2.255 e+005$


Total N-EtFOSAA
F51:MRM of 2 channels,ES584.1 > 419 $3.406 \mathrm{e}+002$


F51:MRM of 2 channels,ES$584.1>526$

d5-N-EtFOSAA
F52:MRM of 1 channel,ES$589.3>419$ $2.255 \mathrm{e}+005$


PFDS
F53:MRM of 2 channels,ES-
$598.8>79.9$
$1.000 \mathrm{e}-003$

13C2-PFUdA
F47:MRM of 1 channel,ES $565>519.8$


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-39.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:56:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:57:15 Pacific Daylight Time |

Name: 180818M2_39, Date: 18-Aug-2018, Time: 21:51:28, ID: 1802055-16 Shooting Range 1-FB-072518 0.23819, Description: Shooting Range 1-FB-072518

## PFDoA

F54:MRM of 4 channels,ES-

F54:MRM of | channels,ES- |
| ---: |
| $612.9>569.0$ |
| $1.167 e+003$ |

| ${ }^{100} 7$ | F54:MRM of 4 channels,ES-$612.9>318.8$ |  |
| :---: | :---: | :---: |
|  | PFDoA | $1.732 \mathrm{e}+002$ |
|  |  |  |
| \% | 173 |  |
|  | bb |  |
|  | 173.00 |  |

## 13C2-PFDoA




## PFTeDA

F60:MRM of 2 channels,ES$662.9>319$


13C2-PFDoA



F61:MRM of 2 channels,ES-


13C2-PFTeDA



F31:MRM of 3 channels,ES$498.3>123.9$


13C8-PFOS


13C4-PFBA
F4:MRM of 1 channel,ES-
217. > 172
$4.257 \mathrm{e}+005$

13C3-PFHxS
F19:MRM of 1 channel,ES

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-39.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:56:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:57:15 Pacific Daylight Time |

Name: 180818M2_39, Date: 18-Aug-2018, Time: 21:51:28, ID: 1802055-16 Shooting Range 1-FB-072518 0.23819, Description: Shooting Range 1-FB-072518
13C6-PFDA
F40:MRM of 1 channel,ES-
$519.1>473.7$
$1.278 \mathrm{e}+006$


## 13C4-PFOS

F33:MRM of 1 channel,ES-
$503>79.9$
$1.569 e+005$



13C5-PFHxA
F11:MRM of 1 channel,ES-

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-40.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:48:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:49:38 Pacific Daylight Time |

Name: 180818M2_40, Date: 18-Aug-2018, Time: 22:02:09, ID: 1802055-17 DUP-1 0.24858, Description: DUP-1

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ |  | 1.88e4 | 0.249 |  | 1.08 |  |  |  |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 2.66 e 4 | 0.249 |  | 2.04 |  |  |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ |  | 3.08 e 3 | 0.249 |  | 2.34 |  |  |  |  |  |  |
| 4 | 5 PFHxA | $313>269$ |  | 1.58 e 4 | 0.249 |  | 2.86 |  |  |  |  |  |  |
| 5 | 7 PFHpA | $363.0>318.9$ |  | 2.42 e 4 | 0.249 |  | 3.48 |  |  |  |  |  |  |
| 6 | 36 13C3-PFBA | $216.1>171.8$ | 1.88 e 4 | 2.57e4 | 0.249 | 0.731 | 1.16 | 1.08 | 9.13 | 44.7059 | 88.9 |  |  |
| 7 | 37 13C3-PFPeA | 266. > 221.8 | 2.66 e 4 | 4.75 e 4 | 0.249 | 0.560 | 2.14 | 2.04 | 6.99 | 57.9063 | 115.2 |  |  |
| 8 | 38 13C3-PFBS | 302. > 98.8 | 3.08 e 3 | 4.75 e 4 | 0.249 | 0.0649 | 2.44 | 2.34 | 0.811 | 64.8668 | 129.0 |  |  |
| 9 | 40 13C2-PFHxA | $315>270$ | 1.58 e 4 | 4.75 e 4 | 0.249 | 0.834 | 2.95 | 2.86 | 4.17 | 17.2123 | 85.6 |  |  |
| 10 | 41 13C4-PFHpA | 367.2 > 321.8 | 2.42 e 4 | 4.75 e 4 | 0.249 | 0.509 | 3.56 | 3.48 | 6.36 | 41.8008 | 83.1 |  |  |
| 11 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 8 L-PFHxS | $398.9>79.6$ | 1.36 e 1 | 2.48 e 3 | 0.249 | 0.000 | 3.51 | 3.64 | 0.0684 | 0.2153 |  | 3.021 | YES |
| 13 | 68 Total PFHxS | $398.9>79.6$ | 1.36 e 1 | 2.48 e 3 | 0.249 |  | 3.65 |  | 0.0684 | 0.2153 |  |  |  |
| 14 | 11 L-PFOA | $412.9>368.9$ | 3.36 e 2 | 3.77e4 | 0.249 | 0.000 | 4.00 | 4.01 | 0.111 | 0.3100 |  | 3.062 | NO |
| 15 | 69 Total PFOA | $412.9>368.9$ | 3.36 e 2 | 3.77 e 4 | 0.249 |  | 4.48 |  | 0.111 | 0.3100 |  |  |  |
| 16 | 15 PFOSA | 498 > 77.9 |  | 2.09 e 3 | 0.249 |  | 4.60 |  |  |  |  |  |  |
| 17 | 42 1802-PFHxS | $403.0>102.6$ | 2.48 e 3 | 5.76 e 3 | 0.249 | 0.431 | 3.72 | 3.64 | 5.38 | 44.8005 | 89.1 |  |  |
| 18 | 42 1802-PFHxS | $403.0>102.6$ | 2.48 e3 | 5.76 e 3 | 0.249 | 0.431 | 3.72 | 3.64 | 5.38 | 44.8005 | 89.1 |  |  |
| 19 | 44 13C2-PFOA | 414.9 > 369.7 | 3.77 e 4 | 4.86 e 4 | 0.249 | 0.776 | 4.09 | 4.01 | 9.70 | 47.5488 | 94.6 |  |  |
| 20 | 44 13C2-PFOA | $414.9>369.7$ | 3.77 e 4 | $4.86 e 4$ | 0.249 | 0.776 | 4.09 | 4.01 | 9.70 | 47.5488 | 94.6 |  |  |
| 21 | 46 13C8-PFOSA | $506.1>77.7$ | 2.09 e 3 | 5.00e4 | 0.249 | 0.0419 | 4.60 | 4.52 | 0.523 | 11.9842 | 23.8 |  |  |
| 22 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 | 14 PFNA | $463.0>418.8$ |  | 3.65 e 4 | 0.249 |  | 4.54 |  |  |  |  |  |  |
| 24 | 16 L-PFOS | $498.9>79.9$ |  | 6.39 e 3 | 0.249 |  | 4.63 |  |  |  |  |  |  |
| 25 | 70 Total PFOS | $498.9>79.9$ | 0.00 e 0 | 6.39 e 3 | 0.249 |  | 4.60 |  | 0.000 |  |  |  |  |
| 26 | 18 PFDA | $513>468.8$ |  | 3.17e4 | 0.249 |  | 4.92 |  |  |  |  |  |  |
| 27 | 25 PFUdA | $563.0>518.9$ |  | 3.30 e 4 | 0.249 |  | 5.25 |  |  |  |  |  |  |
| 28 | 45 13C5-PFNA | $468.2>422.9$ | 3.65 e 4 | 4.60 e 4 | 0.249 | 0.794 | 4.54 | 4.46 | 9.93 | 41.0416 | 81.6 |  |  |
| 29 | 47 13C8-PFOS | $507.0>79.9$ | 6.39 e 3 | 7.16e3 | 0.249 | 0.892 | 4.63 | 4.55 | 11.2 | 42.6424 | 84.8 |  |  |
| 30 | 47 13C8-PFOS | $507.0>79.9$ | 6.39 e 3 | 7.16 e 3 | 0.249 | 0.892 | 4.63 | 4.55 | 11.2 | 42.6424 | 84.8 |  |  |
| 31 | 48 13C2-PFDA | $515.1>469.9$ | 3.17 e 4 | 4.67e4 | 0.249 | 0.679 | 4.92 | 4.85 | 8.48 | 35.6506 | 70.9 |  |  |
| 32 | 51 13C2-PFUdA | $565>519.8$ | 3.30 e 4 | 5.00 e 4 | 0.249 | 0.659 | 5.25 | 5.19 | 8.23 | 33.6858 | 67.0 |  |  |
| 33 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 34 | 21 L-MeFOSAA | $570>419$ |  | 7.95e3 | 0.249 |  | 4.98 |  |  |  |  |  |  |
| 35 | 71 Total N-MeFOSAA | 570. $>419$ | 0.00e0 | 7.95 e 3 | 0.249 |  | 5.07 |  | 0.000 |  |  |  |  |
| 36 | $23 \mathrm{~L}-\mathrm{EtFOSAA}$ | $584.1>419$ |  | 8.93 e 3 | 0.249 |  | 5.24 |  |  |  |  |  |  |

Work Order 1802055

| Dataset: | Z:IProjects\PFAS.PRO\Resultss\180818M2\180818M2-40.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:48:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:49:38 Pacific Daylight Time |

Name: 180818M2_40, Date: 18-Aug-2018, Time: 22:02:09, ID: 1802055-17 DUP-1 0.24858, Description: DUP-1

|  | \# Name | Trace | Area | IS Area | wt/vol | RRF | Pred.RT | RT | Response | Conc. | \%Rec | Ion Ratio | Ratio Out? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 72 Total N-EtFOSAA | $584.1>419$ | 0.00e0 | 8.93 e 3 | 0.249 |  | 5.23 |  | 0.000 |  |  |  |  |
| 38 | 26 PFDS | $598.8>79.9$ |  | 6.39 e 3 | 0.249 |  | 5.30 |  |  |  |  |  |  |
| 39 | $50 \mathrm{~d} 3-\mathrm{N}-\mathrm{MeFOSAA}$ | $573.3>419$ | 7.95 e 3 | 5.00 e 4 | 0.249 | 0.159 | 5.08 | 5.00 | 1.99 | 33.0767 | 65.8 |  |  |
| 40 | $50 \mathrm{~d} 3-\mathrm{N}-\mathrm{MeFOSAA}$ | $573.3>419$ | 7.95 e 3 | 5.00 e 4 | 0.249 | 0.159 | 5.08 | 5.00 | 1.99 | 33.0767 | 65.8 |  |  |
| 41 | $52 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 8.93 e3 | 5.00 e 4 | 0.249 | 0.178 | 5.23 | 5.17 | 2.23 | 34.2384 | 68.1 |  |  |
| 42 | $52 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 8.93 e3 | 5.00 e 4 | 0.249 | 0.178 | 5.23 | 5.17 | 2.23 | 34.2384 | 68.1 |  |  |
| 43 | 51 13C2-PFUdA | $565>519.8$ | 3.30 e 4 | 5.00 e 4 | 0.249 | 0.659 | 5.25 | 5.19 | 8.23 | 33.6858 | 67.0 |  |  |
| 44 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 45 | 27 PFDoA | $612.9>569.0$ |  | 3.53 e 4 | 0.249 |  | 5.54 |  |  |  |  |  |  |
| 46 | 29 PFTrDA | $662.9>618.9$ |  | 3.53 e 4 | 0.249 |  | 5.79 |  |  |  |  |  |  |
| 47 | 30 PFTeDA | 712.8 > 669.0 |  | 3.11 e 4 | 0.249 |  | 6.01 |  |  |  |  |  |  |
| 48 | 73 TCDA | $498.3>106.9$ |  |  | 0.249 |  | 5.11 |  |  |  |  |  |  |
| 49 | 60 13C4-PFBA | 217. > 172 | 2.57 e 4 | 2.57e4 | 0.249 | 1.00 | 1.15 | 1.07 | 12.5 | 50.2856 | 100.0 |  |  |
| 50 | 53 13C2-PFDoA | $615.0>569.7$ | 3.53 e 4 | 4.67e4 | 0.249 | 0.755 | 5.54 | 5.47 | 9.43 | 35.0453 | 69.7 |  |  |
| 51 | 53 13C2-PFDoA | $615.0>569.7$ | 3.53 e 4 | 4.67 e 4 | 0.249 | 0.755 | 5.54 | 5.47 | 9.43 | 35.0453 | 69.7 |  |  |
| 52 | 55 13C2-PFTeDA | 714.8 > 669.6 | 3.11 e 4 | 5.00 e 4 | 0.249 | 0.622 | 6.01 | 5.96 | 7.77 | 40.2389 | 80.0 |  |  |
| 53 | 47 13C8-PFOS | $507.0>79.9$ | 6.39 e 3 | 7.16 e 3 | 0.249 | 0.892 | 4.63 | 4.55 | 11.2 | 42.6424 | 84.8 |  |  |
| 54 | 62 13C3-PFHxS | $401.8>79.9$ | 5.76 e 3 | 5.76 e 3 | 0.249 | 1.00 | 3.72 | 3.64 | 12.5 | 50.2856 | 100.0 |  |  |
| 55 | -1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 56 | 66 13C6-PFDA | $519.1>473.7$ | 4.67 e 4 | 4.67 e 4 | 0.249 | 1.00 | 4.92 | 4.85 | 12.5 | 50.2856 | 100.0 |  |  |
| 57 | 67 13C7-PFUdA | $570.1>524.8$ | 5.00 e 4 | 5.00e4 | 0.249 | 1.00 | 5.25 | 5.18 | 12.5 | 50.2856 | 100.0 |  |  |
| 58 | 65 13C4-PFOS | $503>79.9$ | 7.16 e 3 | 7.16 e 3 | 0.249 | 1.00 | 4.63 | 4.55 | 12.5 | 50.2856 | 100.0 |  |  |
| 59 | 64 13C9-PFNA | 472.2 > 426.9 | 4.60 e 4 | 4.60 e 4 | 0.249 | 1.00 | 4.54 | 4.46 | 12.5 | 50.2856 | 100.0 |  |  |
| 60 | 61 13C5-PFHxA | $318>272.9$ | 4.75 e 4 | 4.75 e 4 | 0.249 | 1.00 | 2.95 | 2.86 | 12.5 | 50.2856 | 100.0 |  |  |

KBF 8/21/2018

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-40.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:48:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:49:38 Pacific Daylight Time |

## Method: Z:\Projects\PFAS.pro\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57

## Calibration: Z:\Projects\PFAS.pro\CurveDB\C18_VAL-PFĀS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

## Name: 180818M2_40, Date: 18-Aug-2018, Time: 22:02:09, ID: 1802055-17 DUP-1 0.24858, Description: DUP-1



## 13C3-PFBA




## 13C3-PFPeA

F6:MRM of 1 channel,ES channel,ES
$266 .>221.8$


## PFBS




13C3-PFBS
F8:MRM of 1 channel,ES-


PFHxA
F9:MRM of 2 channels,ES-
$313>269$
$2.819 \mathrm{e}+003$


## 13C2-PFHxA





## 13C4-PFHpA

F17:MRM of 1 channel,ES
$367.2>321.8$


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-40.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:48:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:49:38 Pacific Daylight Time |

## Name: 180818M2_40, Date: 18-Aug-2018, Time: 22:02:09, ID: 1802055-17 DUP-1 0.24858, Description: DUP-1

## L-PFHxS

L-P18:MRM of 2 channels,ES



1802-PFHxS
F20:MRM of 1 channel,ES403.0 > 102.6 $7.099 \mathrm{e}+004$


\section*{Total PFHxS <br> F18:MRM of 2 channels,ES- <br> |  |  |  | 398.9 > 79.6 |
| :---: | :---: | :---: | :---: |
| 100 | L-PFHxS |  | $3.394 \mathrm{e}+002$ |
|  | 3.64 |  |  |
|  | 1.36 e 1 |  |  |
| \% | 339 |  |  |
|  | bb |  |  |
|  | 339.00 | 3.80 |  |
|  |  |  |  |

F18:MRM of 2 channels,ES-


1802-PFHxS


## L-PFOA

L-PFOA

$$
\text { F21:MRM of } 2 \text { channels,ES- }
$$




13C2-PFOA


## Total PFOA



13C2-PFOA


## PFOSA

P30:MRM of 2 channels,ES-
$498>77.9$
$1.000 \mathrm{e}-003$


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-40.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:48:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:49:38 Pacific Daylight Time |

## Name: 180818M2_40, Date: 18-Aug-2018, Time: 22:02:09, ID: 1802055-17 DUP-1 0.24858, Description: DUP-1







## Total PFOS

F32:MRM of 2 channels,ES-



13C8-PFOS


13C8-PFOS


## PFDA




13C2-PFDA


## PFUdA




13C2-PFUdA
F47:MRM of 1 channel,ES $565>519.8$ $8.438 \mathrm{e}+005$

| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-40.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:48:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:49:38 Pacific Daylight Time |

Name: 180818M2_40, Date: 18-Aug-2018, Time: 22:02:09, ID: 1802055-17 DUP-1 0.24858, Description: DUP-1

## L-MeFOSAA

F48:MRM of 2 channels,ES-


d3-N-MeFOSAA
F50:MRM of 1 channel,ES-
$573.3>419$ $1.884 \mathrm{e}+005$


## Total N-MeFOSAA

F48:MRM of 2 channels,ES

d3-N-MeFOSAA
F50:MRM of 1 channel,ES
$573.3>419$ $1.884 \mathrm{e}+005$


## L-EtFOSAA

F51:MRM of 2 channels,ES-


d5-N-EtFOSAA
F52:MRM of 1 channel,ES$589.3>419$ $2.274 \mathrm{e}+005$


## Total N-EtFOSAA



F53:MRM of 2 channels,ES598.8 > 98.9


13C2-PFUdA
F47:MRM of 1 channel,ES $565>519.8$ $8.438 \mathrm{e}+005$


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-40.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:48:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:49:38 Pacific Daylight Time |

## Name: 180818M2_40, Date: 18-Aug-2018, Time: 22:02:09, ID: 1802055-17 DUP-1 0.24858, Description: DUP-1




## 13C2-PFDoA





## PFTeDA



13C2-PFTeDA




13C8-PFOS



13C3-PFHxS
F19:MRM of 1 channel,ES-
$401.8>79.9$


| Dataset: | Z:\Projects\PFAS.PRO\Results\180818M2\180818M2-40.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 21, 2018 11:48:58 Pacific Daylight Time |
| Printed: | Tuesday, August 21, 2018 11:49:38 Pacific Daylight Time |

Name: 180818M2_40, Date: 18-Aug-2018, Time: 22:02:09, ID: 1802055-17 DUP-1 0.24858, Description: DUP-1





# INJECTION INTERNAL STANDARD (IIS) AREAS, 

## INSTRUMENT BLANKS (IB)

## AND

## CONTINUTING CALIBRATION VERIFICATIONS CCV)

# Quantify Sample Summary Report 

Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_RS-8-15-18.mdb 16 Aug 2018 12:25:46 Calibration: 19 Aug 2018 12:44:36

Name: 180818M2_7, Date: 18-Aug-2018, Time: 16:08:07, ID: ST180818M2-6 PFC CS3 18H0906, Description: PFC CS3 18 H 0906

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | ST180818M2-6 PFC CS3 18H0906 | 1.91 e 4 | 100.0 | NO |
| 2 | $213 C 5-P F H x A$ | ST180818M2-6 PFC CS3 18H0906 | 6.06 e 4 | 100.0 | NO |
| 3 | $313 C 3-P F H x S$ | ST180818M2-6 PFC CS3 18H0906 | 6.83 e 3 | 100.0 | NO |
| 4 | $413 C 8-P F O A$ | ST180818M2-6 PFC CS3 18H0906 | 6.38 e 4 | 100.0 | NO |
| 5 | $513 C 9-P F N A$ | ST180818M2-6 PFC CS3 18H0906 | 5.74 e 4 | 100.0 | NO |
| 6 | $613 C 4-P F O S$ | ST180818M2-6 PFC CS3 18H0906 | 8.13 e 3 | 100.0 | NO |
| 7 | $713 C 6-P F D A$ | ST180818M2-6 PFC CS3 18H0906 | $5.93 e 4$ | 100.0 | NO |
| 8 | $813 C 7-P F U d A$ | ST180818M2-6 PFC CS3 18H0906 | 6.41 e 4 | 100.0 | NO |

Name: 180818M2_8, Date: 18-Aug-2018, Time: 16:18:53, ID: ST180818M2-7 PFC CS4 18H0907, Description: PFC CS4 18 H 0907

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | ST180818M2-7 PFC CS4 18H0907 | 1.89 e 4 | 98.9 | NO |
| 2 | 2 13C5-PFHxA | ST180818M2-7 PFC CS4 18H0907 | 5.93e4 | 98.0 | NO |
| 3 | 3 13C3-PFHxS | ST180818M2-7 PFC CS4 18H0907 | 7.01 e 3 | 102.6 | NO |
| 4 | 4 13C8-PFOA | ST180818M2-7 PFC CS4 18H0907 | 6.54 e 4 | 102.5 | NO |
| 5 | 5 13C9-PFNA | ST180818M2-7 PFC CS4 18H0907 | 5.75 e 4 | 100.2 | NO |
| 6 | 6 13C4-PFOS | ST180818M2-7 PFC CS4 18H0907 | 7.89 e 3 | 97.0 | NO |
| 7 | 7 13C6-PFDA | ST180818M2-7 PFC CS4 18H0907 | 5.78 e 4 | 97.5 | NO |
| 8 | 8 13C7-PFUdA | ST180818M2-7 PFC CS4 18H0907 | 6.25 e 4 | 97.5 | NO |

Name: 180818M2_9, Date: 18-Aug-2018, Time: 16:29:34, ID: ST180818M2-8 PFC CS5 18H0908, Description: PFC CS5 $18 H 0908$

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | ---: | :--- |
| 1 | $113 C 4-P F B A$ | ST180818M2-8 PFC CS5 18H0908 | 1.99 e 4 | 104.1 | NO |
| 2 | $213 C 5-P F H x A$ | ST180818M2-8 PFC CS5 18H0908 | 5.26 e 4 | 86.8 | NO |
| 3 | $313 C 3-P F H x S$ | ST180818M2-8 PFC CS5 18H0908 | 7.38 e 3 | 108.1 | NO |
| 4 | $413 C 8-P F O A$ | ST180818M2-8 PFC CS5 18H0908 | 6.58 e 4 | 103.1 | NO |
| 5 | $513 C 9-P F N A$ | ST180818M2-8 PFC CS5 18H0908 | 5.84 e 4 | 101.7 | NO |
| 6 | $613 C 4-P F O S$ | ST180818M2-8 PFC CS5 18H0908 | 8.12 e 3 | 99.9 | NO |
| 7 | $713 C 6-P F D A$ | ST180818M2-8 PFC CS5 18H0908 | 5.51 e 4 | 92.9 | NO |
| 8 | $813 C 7-P F U d A$ | ST180818M2-8 PFC CS5 18H0908 | 6.06 e 4 | 94.6 | NO |

Name: 180818M2_10, Date: 18-Aug-2018, Time: 16:40:21, ID: ST180818M2-9 PFC CS6 18H0909, Description: PFC CS6 18H0909

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | ST180818M2-9 PFC CS6 18H0909 | 1.90 e 4 | 99.3 | NO |
| 2 | $213 C 5-P F H x A$ | ST180818M2-9 PFC CS6 18H0909 | 5.46 e 4 | 90.1 | NO |
| 3 | $313 C 3-P F H x S$ | ST180818M2-9 PFC CS6 18H0909 | 5.73 e 3 | 83.9 | NO |
| 4 | $413 C 8-P F O A$ | ST180818M2-9 PFC CS6 18H0909 | 5.34 e 4 | 83.8 | NO |
| 5 | $513 C 9-P F N A$ | ST180818M2-9 PFC CS6 18H0909 | 4.50 e 4 | 78.5 | NO |
| 6 | $613 C 4-P F O S$ | ST180818M2-9 PFC CS6 18H0909 | 6.50 e 3 | 79.9 | NO |
| 7 | $713 C 6-P F D A$ | ST180818M2-9 PFC CS6 18H0909 | 4.73 e 4 | 79.8 | NO |
| 8 | $813 C 7-P F U d A$ | ST180818M2-9 PFC CS6 18H0909 | 4.63 e 4 | 72.3 | NO |

Quantify Sample Summary Report
Vista Analytical Laboratory

Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_11, Date: 18-Aug-2018, Time: 16:51:02, ID: ST180818M2-10 PFC CS7 18H0910, Description: PFC CS7 18 H 0910

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | ST180818M2-10 PFC CS7 18H0910 | 1.83 e 4 | 95.9 | NO |
| 2 | $213 C 5-P F H x A$ | ST180818M2-10 PFC CS7 18H0910 | 4.69 e 4 | 77.5 | NO |
| 3 | $313 C 3-P F H x S$ | ST180818M2-10 PFC CS7 18H0910 | 4.64 e 3 | 67.8 | NO |
| 4 | $413 C 8-P F O A$ | ST180818M2-10 PFC CS7 18H0910 | 4.45 e 4 | 69.7 | NO |
| 5 | $513 C 9-P F N A$ | ST180818M2-10 PFC CS7 18H0910 | 3.76 e 4 | 65.5 | NO |
| 6 | $613 C 4-P F O S$ | ST180818M2-10 PFC CS7 18H0910 | 5.17 e 3 | 63.5 | NO |
| 7 | $713 C 6-P F D A$ | ST180818M2-10 PFC CS7 18H0910 | $3.83 e 4$ | 64.5 | NO |
| 8 | $813 C 7-P F U d A$ | ST180818M2-10 PFC CS7 18H0910 | $3.92 e 4$ | 61.2 | NO |

Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA

|  | \# Name | ID | Area | \%Rec |
| :--- | :--- | :--- | ---: | ---: |
| 1 | $113 C 4-P F B A$ | IPA |  | Area Out |
| 2 | $213 C 5-P F H x A$ | IPA | $5.32 e 0$ | 0.0 |
| 3 | $313 C 3-P F H x S$ | IPA |  | YOS |
| 4 | $413 C 8-P F O A$ | IPA |  | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |  |
| 6 | $613 C 4-P F O S$ | IPA | NO |  |
| 7 | $713 C 6-P F D A$ | IPA | NO |  |
| 8 | $813 C 7-P F U d A$ | IPA |  | NO |

Name: 180818M2_13, Date: 18-Aug-2018, Time: 17:12:30, ID: ICV180818M2-1 PFC 537 ICV 18H0911, Description: PFC 537 ICV 18H0911

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | ICV180818M2-1 PFC 537 ICV 18H0911 | 2.07 e 4 | 108.3 | NO |
| 2 | $213 C 5-P F H x A$ | ICV180818M2-1 PFC 537 ICV 18H0911 | 7.05 e 4 | 116.4 | NO |
| 3 | $313 C 3-P F H x S$ | ICV180818M2-1 PFC 537 ICV 18H0911 | 8.76 e 3 | 128.2 | NO |
| 4 | $413 C 8-P F O A$ | ICV180818M2-1 PFC 537 ICV 18H0911 | 8.10 e 4 | 126.9 | NO |
| 5 | $513 C 9-P F N A$ | ICV180818M2-1 PFC 537 ICV 18H0911 | 7.18 e 4 | 125.2 | NO |
| 6 | $613 C 4-P F O S$ | ICV180818M2-1 PFC 537 ICV 18H0911 | 9.91 e 3 | 121.9 | NO |
| 7 | $713 C 6-P F D A$ | ICV180818M2-1 PFC 537 ICV 18H0911 | 7.29 e 4 | 123.0 | NO |
| 8 | $813 C 7-P F U d A$ | ICV180818M2-1 PFC 537 ICV 18H0911 | 7.82 e 4 | 122.0 | NO |

Name: 180818M2_14, Date: 18-Aug-2018, Time: 17:23:17, ID: 1801963-01 Bemidji Pilot APR2 Lead 0.24828,
Description: Bemidji Pilot APR2 Lead

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | $1801963-01$ Bemidji Pilot APR2 Lead $0.2 \ldots$ | 2.75 e 4 | 143.6 | NO |
| 2 | 2 13C5-PFHxA | $1801963-01$ Bemidji Pilot APR2 Lead $0.2 \ldots$ | 4.83 e 4 | 79.8 | NO |
| 3 | 3 13C3-PFHxS | $1801963-01$ Bemidji Pilot APR2 Lead $0.2 \ldots$ | 6.45 e 3 | 94.3 | NO |
| 4 | 4 13C8-PFOA | $1801963-01$ Bemidji Pilot APR2 Lead $0.2 \ldots$ | 5.65 e 4 | 88.5 | NO |
| 5 | 5 13C9-PFNA | $1801963-01$ Bemidji Pilot APR2 Lead $0.2 \ldots$ | 5.16 e 4 | 90.0 | NO |
| 6 | 6 13C4-PFOS | $1801963-01$ Bemidji Pilot APR2 Lead $0.2 \ldots$ | 7.42 e 3 | 91.3 | NO |
| 7 | 7 13C6-PFDA | $1801963-01$ Bemidji Pilot APR2 Lead $0.2 \ldots$ | 5.45 e 4 | 91.9 | NO |
| 8 | 8 | $13 C 7-P F U d A$ | $1801963-01$ Bemidji Pilot APR2 Lead $0.2 \ldots$ | 5.75 e 4 | 89.7 |

Quantify Sample Summary Report
Vista Analytical Laboratory

Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_15, Date: 18-Aug-2018, Time: 17:33:58, ID: 1801963-02 Bemidji Pilot PSR2 + 0.2439, Description: Bemidji Pilot PSR2 +

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | $1801963-02$ Bemidji Pilot PSR2 +0.2439 | 2.70 e 4 | 141.4 | NO |
| 2 | $213 C 5-P F H x A$ | $1801963-02$ Bemidji Pilot PSR2 +0.2439 | 4.86 e 4 | 80.3 | NO |
| 3 | $313 C 3-P F H x S$ | $1801963-02$ Bemidji Pilot PSR2 +0.2439 | 6.46 e 3 | 94.5 | NO |
| 4 | $413 C 8-P F O A$ | $1801963-02$ Bemidji Pilot PSR2 +0.2439 | 5.50 e 4 | 86.2 | NO |
| 5 | $513 C 9-P F N A$ | $1801963-02$ Bemidji Pilot PSR2 +0.2439 | 5.04 e 4 | 87.9 | NO |
| 6 | $613 C 4-P F O S$ | $1801963-02$ Bemidji Pilot PSR2 +0.2439 | 7.60 e 3 | 93.5 | NO |
| 7 | $713 C 6-P F D A$ | $1801963-02$ Bemidji Pilot PSR2 +0.2439 | 4.92 e 4 | 82.9 | NO |
| 8 | $813 C 7-P F U d A$ | $1801963-02$ Bemidji Pilot PSR2 +0.2439 | 5.79 e 4 | 90.4 | NO |

Name: 180818M2_16, Date: 18-Aug-2018, Time: 17:44:36, ID: 1801963-03 Bemidji Pilot INF 0.24699, Description: Bemidji Pilot INF

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | $1801963-03$ Bemidji Pilot INF 0.24699 | 2.60 e 4 | 136.1 | NO |
| 2 | 2 13C5-PFHxA | $1801963-03$ Bemidji Pilot INF 0.24699 | 4.72 e 4 | 77.9 | NO |
| 3 | $313 C 3-P F H x S$ | $1801963-03$ Bemidji Pilot INF 0.24699 | 5.30 e 3 | 77.6 | NO |
| 4 | $413 C 8-P F O A$ | $1801963-03$ Bemidji Pilot INF 0.24699 | 5.30 e 4 | 83.0 | NO |
| 5 | $513 C 9-P F N A$ | $1801963-03$ Bemidji Pilot INF 0.24699 | 4.82 e 4 | 84.0 | NO |
| 6 | $613 C 4-P F O S$ | $1801963-03$ Bemidji Pilot INF 0.24699 | 7.19 e 3 | 88.5 | NO |
| 7 | $713 C 6-P F D A$ | $1801963-03$ Bemidji Pilot INF 0.24699 | 4.89 e 4 | 82.5 | NO |
| 8 | $813 C 7-P F U d A$ | $1801963-03$ Bemidji Pilot INF 0.24699 | 5.66 e 4 | 88.3 | NO |

Name: 180818M2_17, Date: 18-Aug-2018, Time: 17:55:23, ID: B8G0097-BS1 OPR 1, Description: OPR

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | B8G0097-BS1 OPR 1 | 2.49 e 4 | 130.3 | NO |
| 2 | $213 C 5-P F H x A$ | B8G0097-BS1 OPR 1 | 4.57 e 4 | 75.4 | NO |
| 3 | $313 C 3-P F H x S$ | B8G0097-BS1 OPR 1 | 6.22 e 3 | 91.1 | NO |
| 4 | $413 C 8-P F O A$ | B8G0097-BS1 OPR 1 | 4.87 e 4 | 76.4 | NO |
| 5 | $513 C 9-P F N A$ | B8G0097-BS1 OPR 1 | 4.56 e 4 | 79.5 | NO |
| 6 | $613 C 4-P F O S$ | B8G0097-BS1 OPR 1 | 7.20 e 3 | 88.6 | NO |
| 7 | $713 C 6-P F D A$ | B8G0097-BS1 OPR 1 | 4.83 e 4 | 81.4 | NO |
| 8 | $813 C 7-P F U d A$ | B8G0097-BS1 OPR 1 | 5.52 e 4 | 86.1 | NO |

Name: 180818M2_18, Date: 18-Aug-2018, Time: 18:06:09, ID: B8G0238-BS1 OPR 0.25, Description: OPR

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | B8G0238-BS1 OPR 0.25 | 2.65 e 4 | 138.6 | NO |
| 2 | $213 C 5-P F H x A$ | B8G0238-BS1 OPR 0.25 | 4.78 e 4 | 78.9 | NO |
| 3 | $313 C 3-P F H x S$ | B8G0238-BS1 OPR 0.25 | 5.73 e 3 | 83.9 | NO |
| 4 | $413 C 8-P F O A$ | B8G0238-BS1 OPR 0.25 | 5.16 e 4 | 80.8 | NO |
| 5 | $513 C 9-P F N A$ | B8G0238-BS1 OPR 0.25 | 4.37 e 4 | 76.2 | NO |
| 6 | $613 C 4-P F O S$ | B8G0238-BS1 OPR 0.25 | 6.63 e 3 | 81.6 | NO |
| 7 | $713 C 6-P F D A$ | B8G0238-BS1 OPR 0.25 | $4.72 e 4$ | 79.5 | NO |
| 8 | $813 C 7-P F U d A$ | B8G0238-BS1 OPR 0.25 | 5.08 e 4 | 79.2 | NO |

# Quantify Sample Summary Report 

Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_19, Date: 18-Aug-2018, Time: 18:16:50, ID: B8G0238-MS1 Matrix Spike 0.24901, Description: Matrix Spike

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | B8G0238-MS1 Matrix Spike 0.24901 | 2.41 e 4 | 126.2 | NO |
| 2 | $213 C 5-P F H x A$ | B8G0238-MS1 Matrix Spike 0.24901 | 4.25 e 4 | 70.1 | NO |
| 3 | $313 C 3-P F H x S$ | B8G0238-MS1 Matrix Spike 0.24901 | 5.39 e 3 | 78.9 | NO |
| 4 | $413 C 8-P F O A$ | B8G0238-MS1 Matrix Spike 0.24901 | 4.73 e 4 | 74.1 | NO |
| 5 | $513 C 9-P F N A$ | B8G0238-MS1 Matrix Spike 0.24901 | 4.05 e 4 | 70.6 | NO |
| 6 | $613 C 4-P F O S$ | B8G0238-MS1 Matrix Spike 0.24901 | 6.25 e 3 | 76.8 | NO |
| 7 | $713 C 6-P F D A$ | B8G0238-MS1 Matrix Spike 0.24901 | 4.25 e 4 | 71.7 | NO |
| 8 | $813 C 7-P F U d A$ | B8G0238-MS1 Matrix Spike 0.24901 | 4.78 e 4 | 74.6 | NO |

Name: 180818M2_20, Date: 18-Aug-2018, Time: 18:27:36, ID: B8G0238-MSD1 Matrix Spike Dup 0.24586, Description: Matrix Spike Dup

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B8G0238-MSD1 Matrix Spike Dup 0.245... | 2.29 e 4 | 119.7 | NO |
| 2 | 2 13C5-PFHxA | B8G0238-MSD1 Matrix Spike Dup 0.245... | 4.26 e 4 | 70.4 | NO |
| 3 | 3 13C3-PFHxS | B8G0238-MSD1 Matrix Spike Dup 0.245... | 5.27 e 3 | 77.2 | NO |
| 4 | 4 13C8-PFOA | B8G0238-MSD1 Matrix Spike Dup 0.245... | 4.57 e 4 | 71.5 | NO |
| 5 | 5 13C9-PFNA | B8G0238-MSD1 Matrix Spike Dup 0.245... | 4.23 e 4 | 73.7 | NO |
| 6 | 6 13C4-PFOS | B8G0238-MSD1 Matrix Spike Dup 0.245... | 5.78 e 3 | 71.0 | NO |
| 7 | 7 13C6-PFDA | B8G0238-MSD1 Matrix Spike Dup 0.245... | 4.09 e 4 | 69.0 | NO |
| 8 | 8 13C7-PFUdA | B8G0238-MSD1 Matrix Spike Dup 0.245... | 4.60 e 4 | 71.8 | NO |

Name: 180818M2_21, Date: 18-Aug-2018, Time: 18:38:18, ID: B8G0238-BLK1 Method Blank 0.25, Description: Method Blank

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B8G0238-BLK1 Method Blank 0.25 | 2.86 e 4 | 149.4 | NO |
| 2 | 2 13C5-PFHxA | B8G0238-BLK1 Method Blank 0.25 | 5.36 e 4 | 88.6 | NO |
| 3 | 3 13C3-PFHxS | B8G0238-BLK1 Method Blank 0.25 | 6.37 e 3 | 93.2 | NO |
| 4 | 4 13C8-PFOA | B8G0238-BLK1 Method Blank 0.25 | 5.72 e 4 | 89.6 | NO |
| 5 | 5 13C9-PFNA | B8G0238-BLK1 Method Blank 0.25 | 5.07 e 4 | 88.4 | NO |
| 6 | 6 13C4-PFOS | B8G0238-BLK1 Method Blank 0.25 | 7.34 e 3 | 90.4 | NO |
| 7 | 7 13C6-PFDA | B8G0238-BLK1 Method Blank 0.25 | 5.56 e 4 | 93.8 | NO |
| 8 | 8 13C7-PFUdA | B8G0238-BLK1 Method Blank 0.25 | 5.81 e 4 | 90.6 | NO |

Name: 180818M2_22, Date: 18-Aug-2018, Time: 18:49:04, ID: 1802055-01 Clarks-DW-072518 0.24525, Description: Clarks-DW-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802055-01 Clarks-DW-072518 0.24525 | 2.36 e 4 | 123.6 | NO |
| 2 | 2 13C5-PFHxA | 1802055-01 Clarks-DW-072518 0.24525 | 4.22 e 4 | 69.7 | NO |
| 3 | 3 13C3-PFHxS | 1802055-01 Clarks-DW-072518 0.24525 | 5.34 e 3 | 78.1 | NO |
| 4 | 4 13C8-PFOA | 1802055-01 Clarks-DW-072518 0.24525 | 4.79 e 4 | 75.1 | NO |
| 5 | 5 13C9-PFNA | 1802055-01 Clarks-DW-072518 0.24525 | 4.21 e 4 | 73.4 | NO |
| 6 | 6 13C4-PFOS | 1802055-01 Clarks-DW-072518 0.24525 | 6.10 e 3 | 75.0 | NO |
| 7 | 7 13C6-PFDA | 1802055-01 Clarks-DW-072518 0.24525 | 4.38 e 4 | 73.9 | NO |
| 8 | 8 13C7-PFUdA | 1802055-01 Clarks-DW-072518 0.24525 | 4.87 e 4 | 75.9 | NO |

# Quantify Sample Summary Report 

Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: Sunday, August 19, 2018 13:12:05 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_23, Date: 18-Aug-2018, Time: 18:59:44, ID: 1802055-02 Clarks-FB-072518 0.2438, Description: Clarks-FB-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802055-02 Clarks-FB-072518 0.2438 | 2.78 e 4 | 145.2 | NO |
| 2 | 2 13C5-PFHxA | 1802055-02 Clarks-FB-072518 0.2438 | 5.18 e 4 | 85.5 | NO |
| 3 | 3 13C3-PFHxS | 1802055-02 Clarks-FB-072518 0.2438 | 6.03 e 3 | 88.3 | NO |
| 4 | 4 13C8-PFOA | 1802055-02 Clarks-FB-072518 0.2438 | 5.43 e 4 | 85.1 | NO |
| 5 | 5 13C9-PFNA | 1802055-02 Clarks-FB-072518 0.2438 | 5.01 e 4 | 87.4 | NO |
| 6 | 6 13C4-PFOS | 1802055-02 Clarks-FB-072518 0.2438 | 6.86 e 3 | 84.4 | NO |
| 7 | 7 13C6-PFDA | 1802055-02 Clarks-FB-072518 0.2438 | 4.99 e 4 | 84.1 | NO |
| 8 | 8 13C7-PFUdA | 1802055-02 Clarks-FB-072518 0.2438 | 5.34 e 4 | 83.2 | NO |

Name: 180818M2_24, Date: 18-Aug-2018, Time: 19:10:31, ID: 1802055-03 Shop Pasture-DW-072518 0.24056, Description: Shop Pasture-DW-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802055-03 Shop Pasture-DW-072518 ... | 2.32 e 4 | 121.5 | NO |
| 2 | 2 13C5-PFHxA | 1802055-03 Shop Pasture-DW-072518 ... | 4.20 e 4 | 69.3 | NO |
| 3 | 3 13C3-PFHxS | 1802055-03 Shop Pasture-DW-072518 ... | 5.86 e 3 | 85.7 | NO |
| 4 | 4 13C8-PFOA | 1802055-03 Shop Pasture-DW-072518 ... | 4.73 e 4 | 74.2 | NO |
| 5 | 5 13C9-PFNA | 1802055-03 Shop Pasture-DW-072518 ... | 4.28 e 4 | 74.5 | NO |
| 6 | 6 13C4-PFOS | 1802055-03 Shop Pasture-DW-072518 ... | 6.63 e 3 | 81.5 | NO |
| 7 | 7 13C6-PFDA | 1802055-03 Shop Pasture-DW-072518 ... | 4.55 e 4 | 76.8 | NO |
| 8 | 8 13C7-PFUdA | 1802055-03 Shop Pasture-DW-072518 ... | 4.81 e 4 | 75.0 | NO |

Name: 180818M2_25, Date: 18-Aug-2018, Time: 19:21:11, ID: 1802055-04 Shop Pasture-FB-072518 0.24217, Description: Shop Pasture-FB-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802055-04 Shop Pasture-FB-072518 0... | 2.41 e 4 | 125.8 | NO |
| 2 | 2 13C5-PFHxA | 1802055-04 Shop Pasture-FB-072518 0... | 4.53 e 4 | 74.9 | NO |
| 3 | 3 13C3-PFHxS | 1802055-04 Shop Pasture-FB-072518 0... | 5.25 e 3 | 76.9 | NO |
| 4 | 4 13C8-PFOA | 1802055-04 Shop Pasture-FB-072518 0... | 4.82 e 4 | 75.5 | NO |
| 5 | 5 13C9-PFNA | 1802055-04 Shop Pasture-FB-072518 0... | 4.30 e 4 | 75.0 | NO |
| 6 | 6 13C4-PFOS | 1802055-04 Shop Pasture-FB-072518 0... | 5.97e3 | 73.4 | NO |
| 7 | 7 13C6-PFDA | 1802055-04 Shop Pasture-FB-072518 0... | 4.44 e 4 | 74.8 | NO |
| 8 | 8 13C7-PFUdA | 1802055-04 Shop Pasture-FB-072518 0... | 4.79 e 4 | 74.7 | NO |

Name: 180818M2_26, Date: 18-Aug-2018, Time: 19:31:57, ID: 1802055-05 Welder HQ-DW-072518 0.24023, Description: Welder HQ-DW-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802055-05 Welder HQ-DW-072518 0.2... | 2.42 e 4 | 126.5 | NO |
| 2 | 2 13C5-PFHxA | 1802055-05 Welder HQ-DW-072518 0.2... | 4.36 e 4 | 71.9 | NO |
| 3 | 3 13C3-PFHxS | 1802055-05 Welder HQ-DW-072518 0.2... | 6.04 e 3 | 88.4 | NO |
| 4 | 4 13C8-PFOA | 1802055-05 Welder HQ-DW-072518 0.2... | 5.04 e 4 | 79.0 | NO |
| 5 | 5 13C9-PFNA | 1802055-05 Welder HQ-DW-072518 0.2... | 4.64 e 4 | 80.9 | NO |
| 6 | 6 13C4-PFOS | 1802055-05 Welder HQ-DW-072518 0.2... | 7.03 e 3 | 86.5 | NO |
| 7 | 7 13C6-PFDA | 1802055-05 Welder HQ-DW-072518 0.2... | 4.47 e 4 | 75.4 | NO |
| 8 | 8 13C7-PFUdA | 1802055-05 Welder HQ-DW-072518 0.2... | 5.05 e 4 | 78.7 | NO |

# Quantify Sample Summary Report 

Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_27, Date: 18-Aug-2018, Time: 19:42:38, ID: 1802055-06 Welder HQ-FB-072518 0.24084, Description: Welder HQ-FB-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802055-06 Welder HQ-FB-072518 0.2... | 2.73 e 4 | 142.8 | NO |
| 2 | 2 13C5-PFHxA | 1802055-06 Welder HQ-FB-072518 0.2... | 4.91 e 4 | 81.1 | NO |
| 3 | 3 13C3-PFHxS | 1802055-06 Welder HQ-FB-072518 0.2... | 5.81 e 3 | 85.1 | NO |
| 4 | 4 13C8-PFOA | 1802055-06 Welder HQ-FB-072518 0.2... | 5.65 e 4 | 88.6 | NO |
| 5 | 5 13C9-PFNA | 1802055-06 Welder HQ-FB-072518 0.2... | 5.08e4 | 88.5 | NO |
| 6 | 6 13C4-PFOS | 1802055-06 Welder HQ-FB-072518 0.2... | 6.93 e 3 | 85.2 | NO |
| 7 | 7 13C6-PFDA | 1802055-06 Welder HQ-FB-072518 0.2... | 5.11 e 4 | 86.2 | NO |
| 8 | 8 13C7-PFUdA | 1802055-06 Welder HQ-FB-072518 0.2... | 5.60 e 4 | 87.4 | NO |

Name: 180818M2_28, Date: 18-Aug-2018, Time: 19:53:25, ID: 1802055-07 Lupes House-DW-072518 0.23934, Description: Lupes House-DW-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | $1802055-07$ Lupes House-DW-072518 $\ldots$ | 2.16 e 4 | 113.0 | NO |
| 2 | $213 C 5-P F H x A$ | $1802055-07$ Lupes House-DW-072518 $\ldots$ | 4.09 e 4 | 67.6 | NO |
| 3 | $313 C 3-P F H x S$ | $1802055-07$ Lupes House-DW-072518 $\ldots$ | 5.04 e 3 | 73.8 | NO |
| 4 | $413 C 8-P F O A$ | $1802055-07$ Lupes House-DW-072518 $\ldots$ | 4.50 e 4 | 70.5 | NO |
| 5 | $513 C 9-P F N A$ | $1802055-07$ Lupes House-DW-072518 $\ldots$ | 4.05 e 4 | 70.7 | NO |
| 6 | $613 C 4-P F O S$ | $1802055-07$ Lupes House-DW-072518 $\ldots$ | 5.60 e 3 | 68.9 | NO |
| 7 | $713 C 6-P F D A$ | $1802055-07$ Lupes House-DW-072518 $\ldots$ | 4.20 e 4 | 70.9 | NO |
| 8 | $813 C 7-P F U d A$ | $1802055-07$ Lupes House-DW-072518 $\ldots$ | 4.49 e 4 | 70.0 | NO |

Name: 180818M2_29, Date: 18-Aug-2018, Time: 20:04:11, ID: 1802055-08 Lupes House-FB-072518 0.22021, Description: Lupes House-FB-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | $1802055-08$ Lupes House-FB-072518 $0 \ldots$. | 2.52 e 4 | 131.7 | NO |
| 2 | 2 13C5-PFHxA | $1802055-08$ Lupes House-FB-072518 $0 \ldots$. | 4.63 e 4 | 76.5 | NO |
| 3 | $313 C 3-P F H x S$ | $1802055-08$ Lupes House-FB-072518 $0 \ldots$. | 5.51 e 3 | 80.7 | NO |
| 4 | $413 C 8-P F O A$ | $1802055-08$ Lupes House-FB-072518 $0 \ldots$. | 5.07 e 4 | 79.5 | NO |
| 5 | $513 C 9-P F N A$ | $1802055-08$ Lupes House-FB-072518 $0 \ldots$. | 4.46 e 4 | 77.8 | NO |
| 6 | $613 C 4-P F O S$ | $1802055-08$ Lupes House-FB-072518 $0 \ldots$. | 6.14 e 3 | 75.5 | NO |
| 7 | $713 C 6-P F D A$ | $1802055-08$ Lupes House-FB-072518 $0 \ldots$. | 4.44 e 4 | 74.8 | NO |
| 8 | $813 C 7-P F U d A$ | $1802055-08$ Lupes House-FB-0725180.... | 5.01 e 4 | 78.2 | NO |

Name: 180818M2_30, Date: 18-Aug-2018, Time: 20:14:52, ID: 1802055-09 Charlies-DW-072518 0.24358, Description: Charlies-DW-072518

| \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: |
| 1 13C4-PFBA | 1802055-09 Charlies-DW-072518 0.243... | 2.56 e 4 | 133.9 | NO |
| 2 13C5-PFHxA | 1802055-09 Charlies-DW-072518 0.243... | 4.85 e 4 | 80.1 | NO |
| 3 13C3-PFHxS | 1802055-09 Charlies-DW-072518 0.243... | 6.33 e 3 | 92.6 | NO |
| 4 13C8-PFOA | 1802055-09 Charlies-DW-072518 0.243... | 5.39 e 4 | 84.5 | NO |
| 5 13C9-PFNA | 1802055-09 Charlies-DW-072518 0.243... | 4.86 e 4 | 84.7 | NO |
| 6 13C4-PFOS | 1802055-09 Charlies-DW-072518 0.243... | 7.57 e 3 | 93.1 | NO |
| 7 13C6-PFDA | 1802055-09 Charlies-DW-072518 0.243... | 4.97 e 4 | 83.8 | NO |
| 8 13C7-PFUdA | 1802055-09 Charlies-DW-072518 0.243... | 5.58 e 4 | 87.1 | NO |

# Quantify Sample Summary Report 

Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_31, Date: 18-Aug-2018, Time: 20:25:39, ID: 1802055-10 Charlies-FB-072518 0.2447, Description: Charlies-FB-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802055-10 Charlies-FB-072518 0.2447 | 2.42 e 4 | 126.3 | NO |
| 2 | 2 13C5-PFHxA | 1802055-10 Charlies-FB-072518 0.2447 | 4.44 e 4 | 73.4 | NO |
| 3 | 3 13C3-PFHxS | 1802055-10 Charlies-FB-072518 0.2447 | 5.20 e 3 | 76.1 | NO |
| 4 | 4 13C8-PFOA | 1802055-10 Charlies-FB-072518 0.2447 | 4.75 e 4 | 74.4 | NO |
| 5 | 5 13C9-PFNA | 1802055-10 Charlies-FB-072518 0.2447 | 4.20 e 4 | 73.3 | NO |
| 6 | 6 13C4-PFOS | 1802055-10 Charlies-FB-072518 0.2447 | 5.95 e 3 | 73.2 | NO |
| 7 | 7 13C6-PFDA | 1802055-10 Charlies-FB-072518 0.2447 | 4.68 e 4 | 78.9 | NO |
| 8 | 8 13C7-PFUdA | 1802055-10 Charlies-FB-072518 0.2447 | 4.78 e 4 | 74.6 | NO |

Name: 180818M2_32, Date: 18-Aug-2018, Time: 20:36:20, ID: 1802055-11 Hortzendorf-DW-072518 0.23788, Description: Hortzendorf-DW-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802055-11 Hortzendorf-DW-072518 0... | 2.41 e 4 | 125.8 | NO |
| 2 | 2 13C5-PFHxA | 1802055-11 Hortzendorf-DW-072518 0... | 4.45 e 4 | 73.5 | NO |
| 3 | 3 13C3-PFHxS | 1802055-11 Hortzendorf-DW-072518 0... | 5.57 e 3 | 81.6 | NO |
| 4 | 4 13C8-PFOA | 1802055-11 Hortzendorf-DW-072518 0.... | 5.17 e 4 | 81.0 | NO |
| 5 | 5 13C9-PFNA | 1802055-11 Hortzendorf-DW-072518 0.... | 4.69 e 4 | 81.8 | NO |
| 6 | 6 13C4-PFOS | 1802055-11 Hortzendorf-DW-072518 0.... | 6.38 e 3 | 78.5 | NO |
| 7 | 7 13C6-PFDA | 1802055-11 Hortzendorf-DW-072518 0... | 4.80 e 4 | 81.0 | NO |
| 8 | 8 13C7-PFUdA | 1802055-11 Hortzendorf-DW-072518 0... | 5.23 e 4 | 81.5 | NO |

Name: 180818M2_33, Date: 18-Aug-2018, Time: 20:47:07, ID: 1802055-12 Hortzendorf-FB-072518 0.2423, Description: Hortzendorf-FB-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802055-12 Hortzendorf-FB-072518 0.2... | 2.56 e 4 | 133.7 | NO |
| 2 | 2 13C5-PFHxA | 1802055-12 Hortzendorf-FB-072518 0.2... | 4.68 e 4 | 77.2 | NO |
| 3 | 3 13C3-PFHxS | 1802055-12 Hortzendorf-FB-072518 0.2... | 5.73 e 3 | 83.9 | NO |
| 4 | 4 13C8-PFOA | 1802055-12 Hortzendorf-FB-072518 0.2... | 4.87 e 4 | 76.4 | NO |
| 5 | 5 13C9-PFNA | 1802055-12 Hortzendorf-FB-072518 0.2... | 4.68 e 4 | 81.6 | NO |
| 6 | 6 13C4-PFOS | 1802055-12 Hortzendorf-FB-072518 0.2... | 6.11 e 3 | 75.2 | NO |
| 7 | 7 13C6-PFDA | 1802055-12 Hortzendorf-FB-072518 0.2... | 5.04 e 4 | 84.9 | NO |
| 8 | 8 13C7-PFUdA | 1802055-12 Hortzendorf-FB-072518 0.2... | 5.13 e 4 | 79.9 | NO |

Name: 180818M2_34, Date: 18-Aug-2018, Time: 20:57:47, ID: 1802055-13 Charlies Pasture-DW-072518 0.24128, Description: Charlies Pasture-DW-072518

| \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: |
| 1 13C4-PFBA | 1802055-13 Charlies Pasture-DW-0725... | 2.68 e 4 | 140.3 | NO |
| 2 13C5-PFHxA | 1802055-13 Charlies Pasture-DW-0725... | 4.59 e 4 | 75.8 | NO |
| 3 13C3-PFHxS | 1802055-13 Charlies Pasture-DW-0725... | 4.85 e 3 | 71.0 | NO |
| 4 13C8-PFOA | 1802055-13 Charlies Pasture-DW-0725... | 4.66 e 4 | 73.0 | NO |
| 5 13C9-PFNA | 1802055-13 Charlies Pasture-DW-0725... | 4.81 e 4 | 83.9 | NO |
| 6 13C4-PFOS | 1802055-13 Charlies Pasture-DW-0725... | 5.24 e 3 | 64.5 | NO |
| 7 13C6-PFDA | 1802055-13 Charlies Pasture-DW-0725... | 5.33 e 4 | 89.8 | NO |
| 8 13C7-PFUdA | 1802055-13 Charlies Pasture-DW-0725... | 5.52 e 4 | 86.2 | NO |

Quantify Sample Summary Report
Vista Analytical Laboratory

Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_35, Date: 18-Aug-2018, Time: 21:08:34, ID: 1802055-14 Charlies Pasture-FB-072518 0.23717, Description: Charlies Pasture-FB-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | $1802055-14$ Charlies Pasture-FB-07251... | 2.62 e 4 | 136.8 | NO |
| 2 | $213 C 5-P F H x A$ | $1802055-14$ Charlies Pasture-FB-07251... | 4.86 e 4 | 80.2 | NO |
| 3 | $313 C 3-P F H x S$ | $1802055-14$ Charlies Pasture-FB-07251... | 5.68 e 3 | 83.2 | NO |
| 4 | $413 C 8-P F O A$ | $1802055-14$ Charlies Pasture-FB-07251... | $5.20 e 4$ | 81.4 | NO |
| 5 | $513 C 9-P F N A$ | $1802055-14$ Charlies Pasture-FB-07251... | $4.70 e 4$ | 81.9 | NO |
| 6 | $613 C 4-P F O S$ | $1802055-14$ Charlies Pasture-FB-07251... | 6.43 e 3 | 79.0 | NO |
| 7 | $713 C 6-P F D A$ | $1802055-14$ Charlies Pasture-FB-07251... | 5.09 e 4 | 85.8 | NO |
| 8 | $813 C 7-P F U d A$ | $1802055-14$ Charlies Pasture-FB-07251... | $5.21 e 4$ | 81.2 | NO |

Name: 180818M2_36, Date: 18-Aug-2018, Time: 21:19:13, ID: IPA, Description: IPA

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | ---: | ---: | ---: |
| 1 | $113 C 4-P F B A$ | IPA | $5.86 e 0$ | 0.0 | YES |
| 2 | $213 C 5-P F H x A$ | IPA | $1.29 e 1$ | 0.0 | YES |
| 3 | $313 C 3-P F H x S$ | IPA |  | NO |  |
| 4 | $413 C 8-P F O A$ | IPA | $1.03 e 1$ | 0.0 | YES |
| 5 | $513 C 9-P F N A$ | IPA |  | NO |  |
| 6 | $613 C 4-P F O S$ | IPA |  | NO |  |
| 7 | $713 C 6-P F D A$ | IPA |  | NO |  |
| 8 | $813 C 7-P F U d A$ | IPA |  |  | NO |

Name: 180818M2_37, Date: 18-Aug-2018, Time: 21:30:00, ID: ST180818M2-11 PFC CS3 18H0906, Description: PFC CS3 $18 H 0906$

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | ST180818M2-11 PFC CS3 18H0906 | 1.90 e 4 | 99.4 | NO |
| 2 | 2 13C5-PFHxA | ST180818M2-11 PFC CS3 18H0906 | 5.37 e 4 | 88.7 | NO |
| 3 | 3 13C3-PFHxS | ST180818M2-11 PFC CS3 18H0906 | 8.75 e 3 | 128.1 | NO |
| 4 | 4 13C8-PFOA | ST180818M2-11 PFC CS3 18H0906 | 7.34 e 4 | 115.0 | NO |
| 5 | 5 13C9-PFNA | ST180818M2-11 PFC CS3 18H0906 | 6.97 e 4 | 121.5 | NO |
| 6 | 6 13C4-PFOS | ST180818M2-11 PFC CS3 18H0906 | 9.08 e 3 | 111.7 | NO |
| 7 | 7 13C6-PFDA | ST180818M2-11 PFC CS3 18H0906 | 7.03 e 4 | 118.6 | NO |
| 8 | 8 13C7-PFUdA | ST180818M2-11 PFC CS3 18H0906 | 7.23 e 4 | 112.7 | NO |

Name: 180818M2_38, Date: 18-Aug-2018, Time: 21:40:41, ID: 1802055-15 Shooting Range 1-DW-072518 0.24283, Description: Shooting Range 1-DW-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | ---: | :--- |
| 1 | 1 13C4-PFBA | $1802055-15$ Shooting Range 1-DW-072... | 2.84 e 4 | 148.3 | NO |
| 2 | 2 13C5-PFHxA | $1802055-15$ Shooting Range 1-DW-072... | 5.25 e 4 | 86.7 | NO |
| 3 | $313 C 3-P F H x S$ | $1802055-15$ Shooting Range 1-DW-072... | 6.55 e 3 | 95.9 | NO |
| 4 | $413 C 8-P F O A$ | $1802055-15$ Shooting Range 1-DW-072... | 6.09 e 4 | 95.5 | NO |
| 5 | $513 C 9-P F N A$ | $1802055-15$ Shooting Range 1-DW-072... | 5.66 e 4 | 98.6 | NO |
| 6 | $613 C 4-P F O S$ | $1802055-15$ Shooting Range 1-DW-072... | 7.57 e 3 | 93.1 | NO |
| 7 | $713 C 6-P F D A$ | $1802055-15$ Shooting Range 1-DW-072... | 5.95 e 4 | 100.4 | NO |
| 8 | 8 | $13 C 7-P F U d A$ | $1802055-15$ Shooting Range 1-DW-072... | 6.29 e 4 | 98.0 |

Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_39, Date: 18-Aug-2018, Time: 21:51:28, ID: 1802055-16 Shooting Range 1-FB-072518 0.23819, Description: Shooting Range 1-FB-072518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | $1802055-16$ Shooting Range 1-FB-0725... | 2.53 e 4 | 132.2 | NO |
| 2 | 2 13C5-PFHxA | $1802055-16$ Shooting Range 1-FB-0725... | 4.60 e 4 | 75.9 | NO |
| 3 | $313 C 3-P F H x S$ | $1802055-16$ Shooting Range 1-FB-0725... | 5.39 e 3 | 78.9 | NO |
| 4 | $413 C 8-P F O A$ | $1802055-16$ Shooting Range 1-FB-0725... | 4.99 e 4 | 78.2 | NO |
| 5 | $513 C 9-P F N A$ | $1802055-16$ Shooting Range 1-FB-0725... | 4.64 e 4 | 80.9 | NO |
| 6 | $613 C 4-P F O S$ | $1802055-16$ Shooting Range 1-FB-0725... | 6.13 e 3 | 75.4 | NO |
| 7 | $713 C 6-P F D A$ | $1802055-16$ Shooting Range 1-FB-0725... | 4.77 e 4 | 80.4 | NO |
| 8 | $813 C 7-P F U d A$ | $1802055-16$ Shooting Range 1-FB-0725... | 5.02 e 4 | 78.3 | NO |

Name: 180818M2_40, Date: 18-Aug-2018, Time: 22:02:09, ID: 1802055-17 DUP-1 0.24858, Description: DUP-1

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802055-17 DUP-1 0.24858 | 2.57 e 4 | 134.2 | NO |
| 2 | 2 13C5-PFHxA | 1802055-17 DUP-1 0.24858 | 4.75 e 4 | 78.4 | NO |
| 3 | 3 13C3-PFHxS | 1802055-17 DUP-1 0.24858 | 5.76 e 3 | 84.2 | NO |
| 4 | 4 13C8-PFOA | 1802055-17 DUP-1 0.24858 | 4.86 e 4 | 76.1 | NO |
| 5 | 5 13C9-PFNA | 1802055-17 DUP-1 0.24858 | 4.60 e 4 | 80.2 | NO |
| 6 | 6 13C4-PFOS | 1802055-17 DUP-1 0.24858 | 7.16 e 3 | 88.1 | NO |
| 7 | 7 13C6-PFDA | 1802055-17 DUP-1 0.24858 | 4.67 e 4 | 78.8 | NO |
| 8 | 8 13C7-PFUdA | 1802055-17 DUP-1 0.24858 | 5.00 e 4 | 78.1 | NO |

Name: 180818M2_41, Date: 18-Aug-2018, Time: 22:12:55, ID: B8G0245-BS1 OPR 0.125, Description: OPR

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B8G0245-BS1 OPR 0.125 | 3.33 e 4 | 174.3 | YES |
| 2 | 2 13C5-PFHxA | B8G0245-BS1 OPR 0.125 | 6.13 e 4 | 101.2 | NO |
| 3 | 3 13C3-PFHxS | B8G0245-BS1 OPR 0.125 | 7.68 e 3 | 112.4 | NO |
| 4 | 4 13C8-PFOA | B8G0245-BS1 OPR 0.125 | 6.39 e 4 | 100.1 | NO |
| 5 | 5 13C9-PFNA | B8G0245-BS1 OPR 0.125 | 5.95 e 4 | 103.8 | NO |
| 6 | 6 13C4-PFOS | B8G0245-BS1 OPR 0.125 | 8.80 e 3 | 108.2 | NO |
| 7 | 7 13C6-PFDA | B8G0245-BS1 OPR 0.125 | 6.38 e 4 | 107.7 | NO |
| 8 | 8 13C7-PFUdA | B8G0245-BS1 OPR 0.125 | 6.78 e 4 | 105.8 | NO |

Name: 180818M2_42, Date: 18-Aug-2018, Time: 22:23:35, ID: B8G0245-BSD1 LCSD 0.125, Description: LCSD

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | B8G0245-BSD1 LCSD 0.125 | 6.74 e 4 | 352.2 | YES |
| 2 | $213 C 5-P F H x A$ | B8G0245-BSD1 LCSD 0.125 | 1.24 e 5 | 204.8 | YES |
| 3 | $313 C 3-P F H x S$ | B8G0245-BSD1 LCSD 0.125 | 1.49 e 4 | 218.3 | YES |
| 4 | $413 C 8-P F O A$ | B8G0245-BSD1 LCSD 0.125 | 1.33 e 5 | 208.7 | YES |
| 5 | $513 C 9-P F N A$ | B8G0245-BSD1 LCSD 0.125 | 1.18 e 5 | 206.1 | YES |
| 6 | $613 C 4-P F O S$ | B8G0245-BSD1 LCSD 0.125 | 1.71 e 4 | 210.5 | YES |
| 7 | $713 C 6-P F D A$ | B8G0245-BSD1 LCSD 0.125 | 1.25 e 5 | 210.9 | YES |
| 8 | $813 C 7-P F U d A$ | B8G0245-BSD1 LCSD 0.125 | $1.31 e 5$ | 203.6 | YES |

# Quantify Sample Summary Report 

Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_43, Date: 18-Aug-2018, Time: 22:34:22, ID: B8G0245-BLK1 Method Blank 0.125, Description: Method Blank

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | ---: | ---: |
| 1 | 1 13C4-PFBA | B8G0245-BLK1 Method Blank 0.125 | 3.21 e 4 | 168.0 | YES |
| 2 | 2 13C5-PFHxA | B8G0245-BLK1 Method Blank 0.125 | 5.75 e 4 | 95.0 | NO |
| 3 | $313 C 3-P F H x S$ | B8G0245-BLK1 Method Blank 0.125 | 7.06 e 3 | 103.3 | NO |
| 4 | $413 C 8-P F O A$ | B8G0245-BLK1 Method Blank 0.125 | 6.11 e 4 | 95.7 | NO |
| 5 | $513 C 9-P F N A$ | B8G0245-BLK1 Method Blank 0.125 | 5.46 e 4 | 95.1 | NO |
| 6 | $613 C 4-P F O S$ | B8G0245-BLK1 Method Blank 0.125 | 8.22 e 3 | 101.1 | NO |
| 7 | $713 C 6-P F D A$ | B8G0245-BLK1 Method Blank 0.125 | 5.81 e 4 | 98.0 | NO |
| 8 | $813 C 7-P F U d A$ | B8G0245-BLK1 Method Blank 0.125 | 6.34 e 4 | 98.8 | NO |

Name: 180818M2_44, Date: 18-Aug-2018, Time: 22:45:02, ID: 1801974-01 PFAS-STP-SO-EB01 0.09701, Description: PFAS-STP-SO-EB01

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1801974-01 PFAS-STP-SO-EB01 0.097... | 3.03 e 4 | 158.7 | YES |
| 2 | 2 13C5-PFHxA | 1801974-01 PFAS-STP-SO-EB01 0.097... | 5.56 e 4 | 91.7 | NO |
| 3 | 3 13C3-PFHxS | 1801974-01 PFAS-STP-SO-EB01 0.097... | 7.35 e 3 | 107.6 | NO |
| 4 | 4 13C8-PFOA | 1801974-01 PFAS-STP-SO-EB01 0.097... | 6.13 e 4 | 96.1 | NO |
| 5 | 5 13C9-PFNA | 1801974-01 PFAS-STP-SO-EB01 0.097... | 5.72 e 4 | 99.8 | NO |
| 6 | 6 13C4-PFOS | 1801974-01 PFAS-STP-SO-EB01 0.097... | 8.21 e 3 | 100.9 | NO |
| 7 | 7 13C6-PFDA | 1801974-01 PFAS-STP-SO-EB01 0.097... | 6.21 e 4 | 104.7 | NO |
| 8 | 8 13C7-PFUdA | 1801974-01 PFAS-STP-SO-EB01 0.097... | 6.58 e 4 | 102.7 | NO |

Name: 180818M2_45, Date: 18-Aug-2018, Time: 22:55:48, ID: 1802091-01 REEPDW1212 0.11629, Description: REEPDW1212

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802091-01 REEPDW12120.11629 | 2.68 e 4 | 140.4 | NO |
| 2 | 2 13C5-PFHxA | 1802091-01 REEPDW12120.11629 | 4.76 e 4 | 78.6 | NO |
| 3 | 3 13C3-PFHxS | 1802091-01 REEPDW12120.11629 | 6.39 e 3 | 93.5 | NO |
| 4 | 4 13C8-PFOA | 1802091-01 REEPDW12120.11629 | 5.05 e 4 | 79.1 | NO |
| 5 | 5 13C9-PFNA | 1802091-01 REEPDW12120.11629 | 3.77 e 4 | 65.7 | NO |
| 6 | 6 13C4-PFOS | 1802091-01 REEPDW12120.11629 | 7.42 e 3 | 91.3 | NO |
| 7 | 7 13C6-PFDA | 1802091-01 REEPDW1212 0.11629 | 4.94 e 4 | 83.2 | NO |
| 8 | 8 13C7-PFUdA | 1802091-01 REEPDW12120.11629 | 5.17e4 | 80.7 | NO |

Name: 180818M2_46, Date: 18-Aug-2018, Time: 23:06:29, ID: 1802091-02 REEPDW1213 0.12052, Description: REEPDW1213

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802091-02 REEPDW1213 0.12052 | 1.81 e 5 | 944.8 | YES |
| 2 | 2 13C5-PFHxA | 1802091-02 REEPDW1213 0.12052 | 3.12 e 5 | 516.0 | YES |
| 3 | 3 13C3-PFHxS | 1802091-02 REEPDW1213 0.12052 | 4.37 e 4 | 639.3 | YES |
| 4 | 4 13C8-PFOA | 1802091-02 REEPDW1213 0.12052 | 3.40 e 5 | 533.0 | YES |
| 5 | 5 13C9-PFNA | 1802091-02 REEPDW1213 0.12052 | 2.29 e 5 | 399.0 | YES |
| 6 | 6 13C4-PFOS | 1802091-02 REEPDW1213 0.12052 | 4.75 e 4 | 584.8 | YES |
| 7 | 7 13C6-PFDA | 1802091-02 REEPDW12130.12052 | 2.67 e 5 | 450.3 | YES |
| 8 | 8 13C7-PFUdA | 1802091-02 REEPDW12130.12052 | 9.66 e 4 | 150.8 | YES |

Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_47, Date: 18-Aug-2018, Time: 23:17:15, ID: 1802091-03 REEPDW1214 0.11773, Description: REEPDW1214

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802091-03 REEPDW1214 0.11773 | 2.99e4 | 156.2 | YES |
| 2 | 2 13C5-PFHxA | 1802091-03 REEPDW1214 0.11773 | 5.28 e 4 | 87.3 | NO |
| 3 | 3 13C3-PFHxS | 1802091-03 REEPDW1214 0.11773 | 6.76 e 3 | 99.0 | NO |
| 4 | 4 13C8-PFOA | 1802091-03 REEPDW1214 0.11773 | 5.68 e 4 | 89.0 | NO |
| 5 | 5 13C9-PFNA | 1802091-03 REEPDW1214 0.11773 | 4.28 e 4 | 74.6 | NO |
| 6 | 6 13C4-PFOS | 1802091-03 REEPDW1214 0.11773 | 7.46 e 3 | 91.8 | NO |
| 7 | 7 13C6-PFDA | 1802091-03 REEPDW1214 0.11773 | 5.22 e 4 | 87.9 | NO |
| 8 | 8 13C7-PFUdA | 1802091-03 REEPDW1214 0.11773 | 5.81 e 4 | 90.6 | NO |

Name: 180818M2_48, Date: 18-Aug-2018, Time: 23:27:56, ID: 1802091-04 REEPDW1215 0.12338, Description: REEPDW1215

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802091-04 REEPDW1215 0.12338 | 2.60 e 4 | 135.7 | NO |
| 2 | 2 13C5-PFHxA | 1802091-04 REEPDW1215 0.12338 | 4.54 e 4 | 75.0 | NO |
| 3 | 3 13C3-PFHxS | 1802091-04 REEPDW1215 0.12338 | 6.16 e 3 | 90.1 | NO |
| 4 | 4 13C8-PFOA | 1802091-04 REEPDW1215 0.12338 | 5.10 e 4 | 79.9 | NO |
| 5 | 5 13C9-PFNA | 1802091-04 REEPDW1215 0.12338 | 4.31 e 4 | 75.2 | NO |
| 6 | 6 13C4-PFOS | 1802091-04 REEPDW1215 0.12338 | 7.17e3 | 88.2 | NO |
| 7 | 7 13C6-PFDA | 1802091-04 REEPDW1215 0.12338 | 4.65 e 4 | 78.4 | NO |
| 8 | 8 13C7-PFUdA | 1802091-04 REEPDW1215 0.12338 | 4.78 e 4 | 74.6 | NO |

Name: 180818M2_49, Date: 18-Aug-2018, Time: 23:38:43, ID: 1802091-05 REEPDW1216 0.11745, Description: REEPDW1216

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802091-05 REEPDW1216 0.11745 | 2.65 e 4 | 138.7 | NO |
| 2 | 2 13C5-PFHxA | 1802091-05 REEPDW1216 0.11745 | 4.92 e 4 | 81.3 | NO |
| 3 | 3 13C3-PFHxS | 1802091-05 REEPDW1216 0.11745 | 6.48 e 3 | 94.9 | NO |
| 4 | 4 13C8-PFOA | 1802091-05 REEPDW1216 0.11745 | 5.41 e 4 | 84.8 | NO |
| 5 | 5 13C9-PFNA | 1802091-05 REEPDW1216 0.11745 | 4.31 e 4 | 75.1 | NO |
| 6 | 6 13C4-PFOS | 1802091-05 REEPDW1216 0.11745 | 7.51 e 3 | 92.4 | NO |
| 7 | 7 13C6-PFDA | 1802091-05 REEPDW1216 0.11745 | 4.92 e 4 | 82.9 | NO |
| 8 | 8 13C7-PFUdA | 1802091-05 REEPDW1216 0.11745 | 5.22 e 4 | 81.4 | NO |

Name: 180818M2_50, Date: 18-Aug-2018, Time: 23:49:24, ID: 1802092-01 REEPDW1212FRB 0.11995, Description: REEPDW1212FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802092-01 REEPDW1212FRB 0.11995 | 3.98 e 4 | 208.2 | YES |
| 2 | 2 13C5-PFHxA | 1802092-01 REEPDW1212FRB 0.11995 | 7.34 e 4 | 121.1 | NO |
| 3 | 3 13C3-PFHxS | 1802092-01 REEPDW1212FRB 0.11995 | 8.83 e 3 | 129.3 | NO |
| 4 | 4 13C8-PFOA | 1802092-01 REEPDW1212FRB 0.11995 | 8.04 e 4 | 125.9 | NO |
| 5 | 5 13C9-PFNA | 1802092-01 REEPDW1212FRB 0.11995 | 7.22 e 4 | 125.9 | NO |
| 6 | 6 13C4-PFOS | 1802092-01 REEPDW1212FRB 0.11995 | 1.04 e 4 | 128.1 | NO |
| 7 | 7 13C6-PFDA | 1802092-01 REEPDW1212FRB 0.11995 | 7.68 e 4 | 129.5 | NO |
| 8 | 8 13C7-PFUdA | 1802092-01 REEPDW1212FRB 0.11995 | 7.80 e 4 | 121.7 | NO |

# Quantify Sample Summary Report 

Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_51, Date: 19-Aug-2018, Time: 00:00:10, ID: 1802092-02 REEPDW1213FRB 0.1184, Description: REEPDW1213FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802092-02 REEPDW1213FRB 0.1184 | 3.14 e 4 | 164.4 | YES |
| 2 | 2 13C5-PFHxA | 1802092-02 REEPDW1213FRB 0.1184 | 5.59 e 4 | 92.3 | NO |
| 3 | 3 13C3-PFHxS | 1802092-02 REEPDW1213FRB 0.1184 | 7.31 e 3 | 107.0 | NO |
| 4 | 4 13C8-PFOA | 1802092-02 REEPDW1213FRB 0.1184 | 6.33 e 4 | 99.1 | NO |
| 5 | 5 13C9-PFNA | 1802092-02 REEPDW1213FRB 0.1184 | 5.64 e 4 | 98.2 | NO |
| 6 | 6 13C4-PFOS | 1802092-02 REEPDW1213FRB 0.1184 | 7.94 e 3 | 97.6 | NO |
| 7 | 7 13C6-PFDA | 1802092-02 REEPDW1213FRB 0.1184 | 6.02 e 4 | 101.4 | NO |
| 8 | 8 13C7-PFUdA | 1802092-02 REEPDW1213FRB 0.1184 | 6.23 e 4 | 97.1 | NO |

Name: 180818M2_52, Date: 19-Aug-2018, Time: 00:10:56, ID: 1802092-03 REEPDW1214FRB 0.11426, Description: REEPDW1214FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802092-03 REEPDW1214FRB 0.11426 | 3.18 e 4 | 166.2 | YES |
| 2 | 2 13C5-PFHxA | 1802092-03 REEPDW1214FRB 0.11426 | 5.85 e 4 | 96.6 | NO |
| 3 | 3 13C3-PFHxS | 1802092-03 REEPDW1214FRB 0.11426 | 7.58 e 3 | 110.9 | NO |
| 4 | 4 13C8-PFOA | 1802092-03 REEPDW1214FRB 0.11426 | 6.42 e 4 | 100.7 | NO |
| 5 | 5 13C9-PFNA | 1802092-03 REEPDW1214FRB 0.11426 | 5.66 e 4 | 98.7 | NO |
| 6 | 6 13C4-PFOS | 1802092-03 REEPDW1214FRB 0.11426 | 8.34 e 3 | 102.6 | NO |
| 7 | 7 13C6-PFDA | 1802092-03 REEPDW1214FRB 0.11426 | 5.75 e 4 | 97.0 | NO |
| 8 | 8 13C7-PFUdA | 1802092-03 REEPDW1214FRB 0.11426 | 6.37 e 4 | 99.3 | NO |

Name: 180818M2_53, Date: 19-Aug-2018, Time: 00:21:37, ID: 1802092-04 REEPDW1215FRB 0.11712, Description: REEPDW1215FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802092-04 REEPDW1215FRB 0.11712 | 3.30 e 4 | 172.3 | YES |
| 2 | 2 13C5-PFHxA | 1802092-04 REEPDW1215FRB 0.11712 | 6.21 e 4 | 102.6 | NO |
| 3 | 3 13C3-PFHxS | 1802092-04 REEPDW1215FRB 0.11712 | 7.25 e 3 | 106.1 | NO |
| 4 | 4 13C8-PFOA | 1802092-04 REEPDW1215FRB 0.11712 | 6.54 e 4 | 102.4 | NO |
| 5 | 5 13C9-PFNA | 1802092-04 REEPDW1215FRB 0.11712 | 5.59 e 4 | 97.4 | NO |
| 6 | 6 13C4-PFOS | 1802092-04 REEPDW1215FRB 0.11712 | 8.63 e 3 | 106.2 | NO |
| 7 | 7 13C6-PFDA | 1802092-04 REEPDW1215FRB 0.11712 | 6.08 e 4 | 102.6 | NO |
| 8 | 8 13C7-PFUdA | 1802092-04 REEPDW1215FRB 0.11712 | 6.48 e 4 | 101.1 | NO |

Name: 180818M2_54, Date: 19-Aug-2018, Time: 00:32:24, ID: 1802092-05 REEPDW1216FRB 0.1201, Description: REEPDW1216FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802092-05 REEPDW1216FRB 0.1201 | 3.11 e 4 | 162.4 | YES |
| 2 | 2 13C5-PFHxA | 1802092-05 REEPDW1216FRB 0.1201 | 5.91 e 4 | 97.6 | NO |
| 3 | 3 13C3-PFHxS | 1802092-05 REEPDW1216FRB 0.1201 | 7.28 e 3 | 106.5 | NO |
| 4 | 4 13C8-PFOA | 1802092-05 REEPDW1216FRB 0.1201 | 6.20 e 4 | 97.1 | NO |
| 5 | 5 13C9-PFNA | 1802092-05 REEPDW1216FRB 0.1201 | 5.25 e 4 | 91.6 | NO |
| 6 | 6 13C4-PFOS | 1802092-05 REEPDW1216FRB 0.1201 | 8.01 e 3 | 98.6 | NO |
| 7 | 7 13C6-PFDA | 1802092-05 REEPDW1216FRB 0.1201 | 5.63 e 4 | 95.0 | NO |
| 8 | 8 13C7-PFUdA | 1802092-05 REEPDW1216FRB 0.1201 | 6.13 e 4 | 95.7 | NO |

Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_55, Date: 19-Aug-2018, Time: 00:43:10, ID: 1802095-01 REEPDW1218 0.11778, Description: REEPDW1218

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802095-01 REEPDW12180.11778 | 3.88 e 4 | 202.9 | YES |
| 2 | 2 13C5-PFHxA | 1802095-01 REEPDW12180.11778 | 7.33 e 4 | 121.1 | NO |
| 3 | 3 13C3-PFHxS | 1802095-01 REEPDW12180.11778 | 9.22 e 3 | 135.0 | NO |
| 4 | 4 13C8-PFOA | 1802095-01 REEPDW12180.11778 | 8.03 e 4 | 125.9 | NO |
| 5 | 5 13C9-PFNA | 1802095-01 REEPDW12180.11778 | 6.50 e 4 | 113.4 | NO |
| 6 | 6 13C4-PFOS | 1802095-01 REEPDW12180.11778 | 1.04 e 4 | 128.0 | NO |
| 7 | 7 13C6-PFDA | 1802095-01 REEPDW12180.11778 | 7.31 e 4 | 123.3 | NO |
| 8 | 8 13C7-PFUdA | 1802095-01 REEPDW12180.11778 | 7.69 e 4 | 119.9 | NO |

Name: 180818M2_56, Date: 19-Aug-2018, Time: 00:53:52, ID: IPA, Description: IPA

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | ---: | ---: |
| 1 | $113 C 4-P F B A$ | IPA |  | NO |  |
| 2 | $213 C 5-P F H x A$ | IPA | 1.85 e 1 | 0.0 | YES |
| 3 | $313 C 3-P F H x S$ | IPA |  | NO |  |
| 4 | $413 C 8-P F O A$ | IPA |  | YES |  |
| 5 | $513 C 9-P F N A$ | IPA |  | NO |  |
| 6 | $613 C 4-P F O S$ | IPA |  | NO |  |
| 7 | $713 C 6-P F D A$ | IPA |  | NO |  |
| 8 | $813 C 7-P F U d A$ | IPA |  | NO |  |

Name: 180818M2_57, Date: 19-Aug-2018, Time: 01:04:30, ID: ST180818M2-12 PFC CS3 18H0906, Description: PFC CS3 18 H 0906

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | ST180818M2-12 PFC CS3 18H0906 | 2.02 e 4 | 105.6 | NO |
| 2 | $213 C 5-P F H x A$ | ST180818M2-12 PFC CS3 18H0906 | 6.11 e 4 | 100.9 | NO |
| 3 | $313 C 3-P F H x S$ | ST180818M2-12 PFC CS3 18H0906 | 8.93 e 3 | 130.8 | NO |
| 4 | $413 C 8-P F O A$ | ST180818M2-12 PFC CS3 18H0906 | 8.15 e 4 | 127.8 | NO |
| 5 | $513 C 9-P F N A$ | ST180818M2-12 PFC CS3 18H0906 | 7.35 e 4 | 128.1 | NO |
| 6 | $613 C 4-P F O S$ | ST180818M2-12 PFC CS3 18H0906 | 9.50 e 3 | 116.9 | NO |
| 7 | $713 C 6-P F D A$ | ST180818M2-12 PFC CS3 18H0906 | 7.54 e 4 | 127.2 | NO |
| 8 | $813 C 7-P F U d A$ | ST180818M2-12 PFC CS3 18H0906 | 7.77 e 4 | 121.2 | NO |

Name: 180818M2_58, Date: 19-Aug-2018, Time: 01:15:16, ID: 1802095-02 REEPDW1217 0.12064, Description: REEPDW1217

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802095-02 REEPDW1217 0.12064 | 2.67 e 4 | 139.7 | NO |
| 2 | 2 13C5-PFHxA | 1802095-02 REEPDW1217 0.12064 | 5.08 e 4 | 83.8 | NO |
| 3 | 3 13C3-PFHxS | 1802095-02 REEPDW1217 0.12064 | 6.80 e 3 | 99.5 | NO |
| 4 | 4 13C8-PFOA | 1802095-02 REEPDW1217 0.12064 | 5.68 e 4 | 88.9 | NO |
| 5 | 5 13C9-PFNA | 1802095-02 REEPDW1217 0.12064 | 3.98 e 4 | 69.4 | NO |
| 6 | 6 13C4-PFOS | 1802095-02 REEPDW1217 0.12064 | 8.04 e 3 | 98.9 | NO |
| 7 | 7 13C6-PFDA | 1802095-02 REEPDW1217 0.12064 | 5.29 e 4 | 89.1 | NO |
| 8 | 8 13C7-PFUdA | 1802095-02 REEPDW12170.12064 | 5.80 e 4 | 90.5 | NO |

# Quantify Sample Summary Report 

Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_59, Date: 19-Aug-2018, Time: 01:25:58, ID: 1802095-03 REEPDW1219 0.1196, Description: REEPDW1219

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802095-03 REEPDW1219 0.1196 | 3.11 e 4 | 162.5 | YES |
| 2 | 2 13C5-PFHxA | 1802095-03 REEPDW1219 0.1196 | 5.45 e 4 | 90.0 | NO |
| 3 | 3 13C3-PFHxS | 1802095-03 REEPDW1219 0.1196 | 6.77 e 3 | 99.1 | NO |
| 4 | 4 13C8-PFOA | 1802095-03 REEPDW1219 0.1196 | 6.34 e 4 | 99.3 | NO |
| 5 | 5 13C9-PFNA | 1802095-03 REEPDW1219 0.1196 | 5.21 e 4 | 90.8 | NO |
| 6 | 6 13C4-PFOS | 1802095-03 REEPDW1219 0.1196 | 8.18 e 3 | 100.6 | NO |
| 7 | 7 13C6-PFDA | 1802095-03 REEPDW1219 0.1196 | 5.87 e 4 | 99.0 | NO |
| 8 | 8 13C7-PFUdA | 1802095-03 REEPDW1219 0.1196 | 6.10 e 4 | 95.1 | NO |

Name: 180818M2_60, Date: 19-Aug-2018, Time: 01:36:45, ID: 1802096-01 REEPDW1218FRB 0.12181, Description: REEPDW1218FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802096-01 REEPDW1218FRB 0.12181 | 3.21 e 4 | 167.8 | YES |
| 2 | 2 13C5-PFHxA | 1802096-01 REEPDW1218FRB 0.12181 | 5.87 e 4 | 97.0 | NO |
| 3 | 3 13C3-PFHxS | 1802096-01 REEPDW1218FRB 0.12181 | 7.53 e 3 | 110.2 | NO |
| 4 | 4 13C8-PFOA | 1802096-01 REEPDW1218FRB 0.12181 | 6.31 e 4 | 98.9 | NO |
| 5 | 5 13C9-PFNA | 1802096-01 REEPDW1218FRB 0.12181 | 5.75 e 4 | 100.2 | NO |
| 6 | 6 13C4-PFOS | 1802096-01 REEPDW1218FRB 0.12181 | 8.68 e 3 | 106.8 | NO |
| 7 | 7 13C6-PFDA | 1802096-01 REEPDW1218FRB 0.12181 | 6.25 e 4 | 105.4 | NO |
| 8 | 8 13C7-PFUdA | 1802096-01 REEPDW1218FRB 0.12181 | 6.50 e 4 | 101.4 | NO |

Name: 180818M2_61, Date: 19-Aug-2018, Time: 01:47:26, ID: 1802096-02 REEPDW1217FRB 0.12124, Description: REEPDW1217FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802096-02 REEPDW1217FRB 0.12124 | 3.06 e 4 | 160.0 | YES |
| 2 | 2 13C5-PFHxA | 1802096-02 REEPDW1217FRB 0.12124 | 5.64 e 4 | 93.1 | NO |
| 3 | 3 13C3-PFHxS | 1802096-02 REEPDW1217FRB 0.12124 | 7.28 e 3 | 106.6 | NO |
| 4 | 4 13C8-PFOA | 1802096-02 REEPDW1217FRB 0.12124 | 6.31 e 4 | 98.9 | NO |
| 5 | 5 13C9-PFNA | 1802096-02 REEPDW1217FRB 0.12124 | 5.64 e 4 | 98.3 | NO |
| 6 | 6 13C4-PFOS | 1802096-02 REEPDW1217FRB 0.12124 | 8.23 e 3 | 101.2 | NO |
| 7 | 7 13C6-PFDA | 1802096-02 REEPDW1217FRB 0.12124 | 5.94 e 4 | 100.2 | NO |
| 8 | 8 13C7-PFUdA | 1802096-02 REEPDW1217FRB 0.12124 | 6.14 e 4 | 95.8 | NO |

Name: 180818M2_62, Date: 19-Aug-2018, Time: 01:58:12, ID: 1802096-03 REEPDW1219FRB 0.11784, Description: REEPDW1219FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802096-03 REEPDW1219FRB 0.11784 | 3.30 e 4 | 172.5 | YES |
| 2 | 2 13C5-PFHxA | 1802096-03 REEPDW1219FRB 0.11784 | 6.07 e 4 | 100.2 | NO |
| 3 | 3 13C3-PFHxS | 1802096-03 REEPDW1219FRB 0.11784 | 7.60 e 3 | 111.3 | NO |
| 4 | 4 13C8-PFOA | 1802096-03 REEPDW1219FRB 0.11784 | 6.34 e 4 | 99.3 | NO |
| 5 | 5 13C9-PFNA | 1802096-03 REEPDW1219FRB 0.11784 | 5.62 e 4 | 98.0 | NO |
| 6 | 6 13C4-PFOS | 1802096-03 REEPDW1219FRB 0.11784 | 8.52 e 3 | 104.8 | NO |
| 7 | 7 13C6-PFDA | 1802096-03 REEPDW1219FRB 0.11784 | 6.22 e 4 | 104.9 | NO |
| 8 | 8 13C7-PFUdA | 1802096-03 REEPDW1219FRB 0.11784 | 6.44 e 4 | 100.4 | NO |

# Quantify Sample Summary Report 

Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: Sunday, August 19, 2018 13:12:05 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_63, Date: 19-Aug-2018, Time: 02:08:54, ID: 1802115-01 REEPDW1220FRB 0.1158, Description: REEPDW1220FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802115-01 REEPDW1220FRB 0.1158 | 2.97 e 4 | 155.2 | YES |
| 2 | 2 13C5-PFHxA | 1802115-01 REEPDW1220FRB 0.1158 | 5.52 e 4 | 91.1 | NO |
| 3 | 3 13C3-PFHxS | 1802115-01 REEPDW1220FRB 0.1158 | 6.27 e 3 | 91.8 | NO |
| 4 | 4 13C8-PFOA | 1802115-01 REEPDW1220FRB 0.1158 | 6.05 e 4 | 94.8 | NO |
| 5 | 5 13C9-PFNA | 1802115-01 REEPDW1220FRB 0.1158 | 5.29 e 4 | 92.3 | NO |
| 6 | 6 13C4-PFOS | 1802115-01 REEPDW1220FRB 0.1158 | 7.19 e 3 | 88.4 | NO |
| 7 | 7 13C6-PFDA | 1802115-01 REEPDW1220FRB 0.1158 | 5.51 e 4 | 92.9 | NO |
| 8 | 8 13C7-PFUdA | 1802115-01 REEPDW1220FRB 0.1158 | 5.70 e 4 | 88.8 | NO |

Name: 180818M2_64, Date: 19-Aug-2018, Time: 02:19:40, ID: 1802115-02 REEPDW1221FRB 0.11562, Description: REEPDW1221FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | $1802115-02$ REEPDW1221FRB 0.11562 | 3.79 e 4 | 198.2 | YES |
| 2 | 2 13C5-PFHxA | $1802115-02$ REEPDW1221FRB 0.11562 | 6.74 e 4 | 111.3 | NO |
| 3 | $313 C 3-P F H x S$ | $1802115-02$ REEPDW1221FRB 0.11562 | 8.46 e 3 | 123.9 | NO |
| 4 | $413 C 8-P F O A$ | $1802115-02$ REEPDW1221FRB 0.11562 | 7.17 e 4 | 112.3 | NO |
| 5 | $513 C 9-P F N A$ | $1802115-02$ REEPDW1221FRB 0.11562 | 6.54 e 4 | 114.0 | NO |
| 6 | $613 C 4-P F O S$ | $1802115-02$ REEPDW1221FRB 0.11562 | 9.50 e 3 | 116.9 | NO |
| 7 | $713 C 6-P F D A$ | $1802115-02$ REEPDW1221FRB 0.11562 | 6.83 e 4 | 115.2 | NO |
| 8 | $813 C 7-P F U d A$ | $1802115-02$ REEPDW1221FRB 0.11562 | 7.22 e 4 | 112.6 | NO |

Name: 180818M2_65, Date: 19-Aug-2018, Time: 02:30:22, ID: 1802115-03 REEPDW1223FRB 0.11727, Description: REEPDW1223FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802115-03 REEPDW1223FRB 0.11727 | 2.68 e 4 | 140.1 | NO |
| 2 | 2 13C5-PFHxA | 1802115-03 REEPDW1223FRB 0.11727 | 5.01 e 4 | 82.7 | NO |
| 3 | 3 13C3-PFHxS | 1802115-03 REEPDW1223FRB 0.11727 | 5.79 e 3 | 84.8 | NO |
| 4 | 4 13C8-PFOA | 1802115-03 REEPDW1223FRB 0.11727 | 5.42 e 4 | 85.0 | NO |
| 5 | 5 13C9-PFNA | 1802115-03 REEPDW1223FRB 0.11727 | 4.61 e 4 | 80.4 | NO |
| 6 | 6 13C4-PFOS | 1802115-03 REEPDW1223FRB 0.11727 | 6.48 e 3 | 79.7 | NO |
| 7 | 7 13C6-PFDA | 1802115-03 REEPDW1223FRB 0.11727 | 4.95 e 4 | 83.5 | NO |
| 8 | 8 13C7-PFUdA | 1802115-03 REEPDW1223FRB 0.11727 | 5.22 e 4 | 81.4 | NO |

Name: 180818M2_66, Date: 19-Aug-2018, Time: 02:41:08, ID: 1802115-04 REEPDW1224FRB 0.11767, Description: REEPDW1224FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802115-04 REEPDW1224FRB 0.11767 | 2.69 e 4 | 140.7 | NO |
| 2 | 2 13C5-PFHxA | 1802115-04 REEPDW1224FRB 0.11767 | 4.90 e 4 | 80.9 | NO |
| 3 | 3 13C3-PFHxS | 1802115-04 REEPDW1224FRB 0.11767 | 5.93 e 3 | 86.8 | NO |
| 4 | 4 13C8-PFOA | 1802115-04 REEPDW1224FRB 0.11767 | 5.25 e 4 | 82.3 | NO |
| 5 | 5 13C9-PFNA | 1802115-04 REEPDW1224FRB 0.11767 | 4.79 e 4 | 83.5 | NO |
| 6 | 6 13C4-PFOS | 1802115-04 REEPDW1224FRB 0.11767 | 6.57 e 3 | 80.8 | NO |
| 7 | 7 13C6-PFDA | 1802115-04 REEPDW1224FRB 0.11767 | 4.90 e 4 | 82.6 | NO |
| 8 | 8 13C7-PFUdA | 1802115-04 REEPDW1224FRB 0.11767 | 5.28 e 4 | 82.3 | NO |

Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_67, Date: 19-Aug-2018, Time: 02:51:49, ID: 1802115-05 REEPDW1222FRB 0.11639, Description: REEPDW1222FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802115-05 REEPDW1222FRB 0.11639 | 3.48 e 4 | 181.7 | YES |
| 2 | 2 13C5-PFHxA | 1802115-05 REEPDW1222FRB 0.11639 | 6.35 e 4 | 104.8 | NO |
| 3 | 3 13C3-PFHxS | 1802115-05 REEPDW1222FRB 0.11639 | 7.58 e 3 | 110.9 | NO |
| 4 | 4 13C8-PFOA | 1802115-05 REEPDW1222FRB 0.11639 | 6.91 e 4 | 108.3 | NO |
| 5 | 5 13C9-PFNA | 1802115-05 REEPDW1222FRB 0.11639 | 5.78 e 4 | 100.7 | NO |
| 6 | 6 13C4-PFOS | 1802115-05 REEPDW1222FRB 0.11639 | 8.69e3 | 106.9 | NO |
| 7 | 7 13C6-PFDA | 1802115-05 REEPDW1222FRB 0.11639 | 6.38 e 4 | 107.6 | NO |
| 8 | 8 13C7-PFUdA | 1802115-05 REEPDW1222FRB 0.11639 | 6.84 e 4 | 106.7 | NO |

Name: 180818M2_68, Date: 19-Aug-2018, Time: 03:02:28, ID: 1802115-06 REEPDW1225FRB 0.11206, Description: REEPDW1225FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802115-06 REEPDW1225FRB 0.11206 | 3.79 e 4 | 198.2 | YES |
| 2 | 2 13C5-PFHxA | 1802115-06 REEPDW1225FRB 0.11206 | 6.88 e 4 | 113.6 | NO |
| 3 | 3 13C3-PFHxS | 1802115-06 REEPDW1225FRB 0.11206 | 8.67 e 3 | 126.9 | NO |
| 4 | 4 13C8-PFOA | 1802115-06 REEPDW1225FRB 0.11206 | 7.40 e 4 | 116.0 | NO |
| 5 | 5 13C9-PFNA | 1802115-06 REEPDW1225FRB 0.11206 | 6.19 e 4 | 107.9 | NO |
| 6 | 6 13C4-PFOS | 1802115-06 REEPDW1225FRB 0.11206 | 9.50 e 3 | 116.9 | NO |
| 7 | 7 13C6-PFDA | 1802115-06 REEPDW1225FRB 0.11206 | 6.67 e 4 | 112.4 | NO |
| 8 | 8 13C7-PFUdA | 1802115-06 REEPDW1225FRB 0.11206 | 7.48 e 4 | 116.7 | NO |

Name: 180818M2_69, Date: 19-Aug-2018, Time: 03:13:14, ID: IPA, Description: IPA

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | ---: | ---: |
| 1 | $113 C 4-P F B A$ | IPA |  | NO |  |
| 2 | $213 C 5-P F H x A$ | IPA | $2.12 e 1$ | 0.0 | YES |
| 3 | $313 C 3-P F H x S$ | IPA |  | NO |  |
| 4 | $413 C 8-P F O A$ | IPA | 1.58 e 1 | 0.0 | YES |
| 5 | $513 C 9-P F N A$ | IPA |  | NO |  |
| 6 | $613 C 4-P F O S$ | IPA |  | NO |  |
| 7 | $713 C 6-P F D A$ | IPA |  | NO |  |
| 8 | $813 C 7-P F U d A$ | IPA |  | NO |  |

Name: 180818M2_70, Date: 19-Aug-2018, Time: 03:23:52, ID: ST180818M2-13 PFC CS3 18H0906, Description: PFC CS3 18 H 0906

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | ST180818M2-13 PFC CS3 18H0906 | 2.07 e 4 | 108.5 | NO |
| 2 | 2 13C5-PFHxA | ST180818M2-13 PFC CS3 18H0906 | 5.57 e 4 | 92.0 | NO |
| 3 | 3 13C3-PFHxS | ST180818M2-13 PFC CS3 18H0906 | 8.62 e 3 | 126.1 | NO |
| 4 | 4 13C8-PFOA | ST180818M2-13 PFC CS3 18H0906 | 8.56 e 4 | 134.2 | NO |
| 5 | 5 13C9-PFNA | ST180818M2-13 PFC CS3 18H0906 | 7.57 e 4 | 132.0 | NO |
| 6 | 6 13C4-PFOS | ST180818M2-13 PFC CS3 18H0906 | 1.06 e 4 | 130.8 | NO |
| 7 | 7 13C6-PFDA | ST180818M2-13 PFC CS3 18H0906 | 7.86 e 4 | 132.6 | NO |
| 8 | 8 13C7-PFUdA | ST180818M2-13 PFC CS3 18H0906 | 7.98 e 4 | 124.5 | NO |

# Quantify Sample Summary Report 

Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_71, Date: 19-Aug-2018, Time: 03:34:39, ID: ST180818M2-14 PFC CS0 18H0903, Description: PFC CS0 18 H 0903

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | ST180818M2-14 PFC CS0 18H0903 | 2.32 e 4 | 121.2 | NO |
| 2 | $213 C 5-P F H x A$ | ST180818M2-14 PFC CS0 18H0903 | 6.52 e 4 | 107.7 | NO |
| 3 | $313 C 3-P F H x S$ | ST180818M2-14 PFC CS0 18H0903 | 1.00 e 4 | 146.9 | NO |
| 4 | $413 C 8-P F O A$ | ST180818M2-14 PFC CS0 18H0903 | 9.50 e 4 | 148.9 | NO |
| 5 | $513 C 9-P F N A$ | ST180818M2-14 PFC CS0 18H0903 | 8.45 e 4 | 147.3 | NO |
| 6 | $613 C 4-P F O S$ | ST180818M2-14 PFC CS0 18H0903 | 1.10 e 4 | 135.9 | NO |
| 7 | $713 C 6-P F D A$ | ST180818M2-14 PFC CS0 18H0903 | 8.38 e 4 | 141.3 | NO |
| 8 | $813 C 7-P F U d A$ | ST180818M2-14 PFC CS0 18H0903 | 9.07 e 4 | 141.5 | NO |

Name: 180818M2_72, Date: 19-Aug-2018, Time: 03:45:25, ID: 1802115-07 REEPDW1229FRB 0.11554, Description: REEPDW1229FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802115-07 REEPDW1229FRB 0.11554 | 3.17 e 4 | 166.0 | YES |
| 2 | 2 13C5-PFHxA | 1802115-07 REEPDW1229FRB 0.11554 | 5.64 e 4 | 93.1 | NO |
| 3 | 3 13C3-PFHxS | 1802115-07 REEPDW1229FRB 0.11554 | 6.54 e 3 | 95.8 | NO |
| 4 | 4 13C8-PFOA | 1802115-07 REEPDW1229FRB 0.11554 | 6.03 e 4 | 94.6 | NO |
| 5 | 5 13C9-PFNA | 1802115-07 REEPDW1229FRB 0.11554 | 5.64 e 4 | 98.3 | NO |
| 6 | 6 13C4-PFOS | 1802115-07 REEPDW1229FRB 0.11554 | 7.61 e 3 | 93.6 | NO |
| 7 | 7 13C6-PFDA | 1802115-07 REEPDW1229FRB 0.11554 | 5.74 e 4 | 96.9 | NO |
| 8 | 8 13C7-PFUdA | 1802115-07 REEPDW1229FRB 0.11554 | 6.07 e 4 | 94.7 | NO |

Name: 180818M2_73, Date: 19-Aug-2018, Time: 03:56:07, ID: 1802115-08 REEPDW1230FRB 0.11545, Description: REEPDW1230FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802115-08 REEPDW1230FRB 0.11545 | 3.53 e 4 | 184.4 | YES |
| 2 | 2 13C5-PFHxA | 1802115-08 REEPDW1230FRB 0.11545 | 6.60 e 4 | 109.0 | NO |
| 3 | 3 13C3-PFHxS | 1802115-08 REEPDW1230FRB 0.11545 | 7.98 e 3 | 116.8 | NO |
| 4 | 4 13C8-PFOA | 1802115-08 REEPDW1230FRB 0.11545 | 7.07 e 4 | 110.9 | NO |
| 5 | 5 13C9-PFNA | 1802115-08 REEPDW1230FRB 0.11545 | 6.54 e 4 | 114.0 | NO |
| 6 | 6 13C4-PFOS | 1802115-08 REEPDW1230FRB 0.11545 | 9.26 e 3 | 113.9 | NO |
| 7 | 7 13C6-PFDA | 1802115-08 REEPDW1230FRB 0.11545 | 6.87e4 | 115.9 | NO |
| 8 | 8 13C7-PFUdA | 1802115-08 REEPDW1230FRB 0.11545 | 7.32 e 4 | 114.1 | NO |

Name: 180818M2_74, Date: 19-Aug-2018, Time: 04:06:53, ID: 1802115-09 REEPDW1231FRB 0.11589, Description: REEPDW1231FRB

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802115-09 REEPDW1231FRB 0.11589 | 3.08 e 4 | 161.2 | YES |
| 2 | 2 13C5-PFHxA | 1802115-09 REEPDW1231FRB 0.11589 | 5.55 e 4 | 91.6 | NO |
| 3 | 3 13C3-PFHxS | 1802115-09 REEPDW1231FRB 0.11589 | 6.59 e 3 | 96.4 | NO |
| 4 | 4 13C8-PFOA | 1802115-09 REEPDW1231FRB 0.11589 | 6.10 e 4 | 95.6 | NO |
| 5 | 5 13C9-PFNA | 1802115-09 REEPDW1231FRB 0.11589 | 5.22 e 4 | 91.0 | NO |
| 6 | 6 13C4-PFOS | 1802115-09 REEPDW1231FRB 0.11589 | 7.39 e 3 | 90.9 | NO |
| 7 | 7 13C6-PFDA | 1802115-09 REEPDW1231FRB 0.11589 | 5.60 e 4 | 94.4 | NO |
| 8 | 8 13C7-PFUdA | 1802115-09 REEPDW1231FRB 0.11589 | 6.01 e 4 | 93.7 | NO |

Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_75, Date: 19-Aug-2018, Time: 04:17:34, ID: B8H0016-BS1 OPR 0.125, Description: OPR

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B8H0016-BS1 OPR 0.125 | 3.11 e 4 | 162.4 | YES |
| 2 | 2 13C5-PFHxA | B8H0016-BS1 OPR 0.125 | 5.47 e 4 | 90.4 | NO |
| 3 | 3 13C3-PFHxS | B8H0016-BS1 OPR 0.125 | 7.06 e 3 | 103.4 | NO |
| 4 | 4 13C8-PFOA | B8H0016-BS1 OPR 0.125 | 6.19 e 4 | 97.0 | NO |
| 5 | 5 13C9-PFNA | B8H0016-BS1 OPR 0.125 | 5.53 e 4 | 96.4 | NO |
| 6 | 6 13C4-PFOS | B8H0016-BS1 OPR 0.125 | 7.96 e 3 | 98.0 | NO |
| 7 | 7 13C6-PFDA | B8H0016-BS1 OPR 0.125 | 5.96 e 4 | 100.5 | NO |
| 8 | 8 13C7-PFUdA | B8H0016-BS1 OPR 0.125 | 6.14 e 4 | 95.8 | NO |

Name: 180818M2_76, Date: 19-Aug-2018, Time: 04:28:20, ID: B8H0016-BLK1 Method Blank 0.125, Description: Method Blank

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | ---: |
| 1 | 1 13C4-PFBA | B8H0016-BLK1 Method Blank 0.125 | 3.31 e 4 | 173.2 | YES |
| 2 | $213 C 5-P F H x A$ | B8H0016-BLK1 Method Blank 0.125 | 6.19 e 4 | 102.2 | NO |
| 3 | $313 C 3-P F H x S$ | B8H0016-BLK1 Method Blank 0.125 | 7.63 e 3 | 111.7 | NO |
| 4 | $413 C 8-P F O A$ | B8H0016-BLK1 Method Blank 0.125 | 6.67 e 4 | 104.5 | NO |
| 5 | $513 C 9-P F N A$ | B8H0016-BLK1 Method Blank 0.125 | 6.04 e 4 | 105.3 | NO |
| 6 | $613 C 4-P F O S$ | B8H0016-BLK1 Method Blank 0.125 | $8.36 e 3$ | 102.9 | NO |
| 7 | $713 C 6-P F D A$ | B8H0016-BLK1 Method Blank 0.125 | $6.01 e 4$ | 101.4 | NO |
| 8 | $813 C 7-P F U d A$ | B8H0016-BLK1 Method Blank 0.125 | $6.72 e 4$ | 104.8 | NO |

Name: 180818M2_77, Date: 19-Aug-2018, Time: 04:39:02, ID: B8H0016-MS1 Matrix Spike 0.11005, Description: Matrix Spike

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | ---: |
| 1 | $113 C 4-P F B A$ | B8H0016-MS1 Matrix Spike 0.11005 | 9.85 e 3 | 51.5 | NO |
| 2 | $213 C 5-P F H x A$ | B8H0016-MS1 Matrix Spike 0.11005 | 2.16 e 4 | 35.7 | YES |
| 3 | $313 C 3-P F H x S$ | B8H0016-MS1 Matrix Spike 0.11005 | 6.57 e 3 | 96.2 | NO |
| 4 | $413 C 8-P F O A$ | B8H0016-MS1 Matrix Spike 0.11005 | $3.02 e 4$ | 47.4 | YES |
| 5 | $513 C 9-P F N A$ | B8H0016-MS1 Matrix Spike 0.11005 | $2.55 e 4$ | 44.5 | YES |
| 6 | $613 C 4-P F O S$ | B8H0016-MS1 Matrix Spike 0.11005 | $8.09 e 3$ | 99.6 | NO |
| 7 | $713 C 6-P F D A$ | B8H0016-MS1 Matrix Spike 0.11005 | $3.21 e 4$ | 54.1 | NO |
| 8 | $813 C 7-P F U d A$ | B8H0016-MS1 Matrix Spike 0.11005 | $3.55 e 4$ | 55.4 | NO |

Name: 180818M2_78, Date: 19-Aug-2018, Time: 04:49:48, ID: B8H0016-MSD1 Matrix Spike Dup 0.11459, Description: Matrix Spike Dup

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B8H0016-MSD1 Matrix Spike Dup 0.114... | 1.74 e 4 | 91.1 | NO |
| 2 | 2 13C5-PFHxA | B8H0016-MSD1 Matrix Spike Dup 0.114... | 3.33 e 4 | 55.0 | NO |
| 3 | 3 13C3-PFHxS | B8H0016-MSD1 Matrix Spike Dup 0.114... | 7.59 e 3 | 111.0 | NO |
| 4 | 4 13C8-PFOA | B8H0016-MSD1 Matrix Spike Dup 0.114... | 3.67 e 4 | 57.4 | NO |
| 5 | 5 13C9-PFNA | B8H0016-MSD1 Matrix Spike Dup 0.114... | 3.02 e 4 | 52.6 | NO |
| 6 | 6 13C4-PFOS | B8H0016-MSD1 Matrix Spike Dup 0.114... | 8.70 e 3 | 107.1 | NO |
| 7 | 7 13C6-PFDA | B8H0016-MSD1 Matrix Spike Dup 0.114... | 3.83 e 4 | 64.5 | NO |
| 8 | 8 13C7-PFUdA | B8H0016-MSD1 Matrix Spike Dup 0.114... | 4.40 e 4 | 68.6 | NO |

Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_79, Date: 19-Aug-2018, Time: 05:00:28, ID: 1802114-01 REEPDW1220 0.11573, Description: REEPDW1220

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | ---: |
| 1 | 1 13C4-PFBA | $1802114-01$ REEPDW1220 0.11573 | 1.44 e 4 | 75.4 | NO |
| 2 | 2 13C5-PFHxA | $1802114-01$ REEPDW1220 0.11573 | 2.99 e 4 | 49.4 | YES |
| 3 | $313 C 3-P F H x S$ | $1802114-01$ REEPDW1220 0.11573 | 6.48 e 3 | 94.9 | NO |
| 4 | $413 C 8-P F O A$ | $1802114-01$ REEPDW1220 0.11573 | 3.90 e 4 | 61.1 | NO |
| 5 | $513 C 9-P F N A$ | $1802114-01$ REEPDW1220 0.11573 | 3.10 e 4 | 54.0 | NO |
| 6 | $613 C 4-P F O S$ | $1802114-01$ REEPDW1220 0.11573 | 7.71 e 3 | 94.8 | NO |
| 7 | $713 C 6-P F D A$ | $1802114-01$ REEPDW1220 0.11573 | $4.07 e 4$ | 68.7 | NO |
| 8 | $813 C 7-P F U d A$ | $1802114-01$ REEPDW1220 0.11573 | 4.54 e 4 | 70.8 | NO |

Name: 180818M2_80, Date: 19-Aug-2018, Time: 05:11:14, ID: 1802114-02 REEPDW571 0.11327, Description: REEPDW571

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802114-02 REEPDW571 0.11327 | 2.51 e 4 | 131.1 | NO |
| 2 | 2 13C5-PFHxA | 1802114-02 REEPDW571 0.11327 | 5.26 e 4 | 86.8 | NO |
| 3 | 3 13C3-PFHxS | 1802114-02 REEPDW571 0.11327 | 9.02 e 3 | 132.1 | NO |
| 4 | 4 13C8-PFOA | 1802114-02 REEPDW571 0.11327 | 5.96 e 4 | 93.4 | NO |
| 5 | 5 13C9-PFNA | 1802114-02 REEPDW571 0.11327 | 4.76 e 4 | 83.0 | NO |
| 6 | 6 13C4-PFOS | 1802114-02 REEPDW571 0.11327 | 1.10 e 4 | 135.1 | NO |
| 7 | 7 13C6-PFDA | 1802114-02 REEPDW571 0.11327 | 6.16 e 4 | 103.9 | NO |
| 8 | 8 13C7-PFUdA | 1802114-02 REEPDW571 0.11327 | 7.04 e 4 | 109.9 | NO |

Name: 180818M2_81, Date: 19-Aug-2018, Time: 05:21:56, ID: 1802114-03 REEPDW1221 0.11667, Description: REEPDW1221

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802114-03 REEPDW1221 0.11667 | 1.19 e 4 | 62.2 | NO |
| 2 | 2 13C5-PFHxA | 1802114-03 REEPDW1221 0.11667 | 2.96 e 4 | 48.8 | YES |
| 3 | 3 13C3-PFHxS | 1802114-03 REEPDW1221 0.11667 | 7.10 e 3 | 104.0 | NO |
| 4 | 4 13C8-PFOA | 1802114-03 REEPDW1221 0.11667 | 3.71 e 4 | 58.2 | NO |
| 5 | 5 13C9-PFNA | 1802114-03 REEPDW1221 0.11667 | 3.01 e 4 | 52.4 | NO |
| 6 | 6 13C4-PFOS | 1802114-03 REEPDW1221 0.11667 | 7.80 e 3 | 95.9 | NO |
| 7 | 7 13C6-PFDA | 1802114-03 REEPDW1221 0.11667 | 3.89 e 4 | 65.5 | NO |
| 8 | 8 13C7-PFUdA | 1802114-03 REEPDW1221 0.11667 | 4.48 e 4 | 69.9 | NO |

Name: 180818M2_82, Date: 19-Aug-2018, Time: 05:32:34, ID: 1802114-04 REEPDW1223 0.11625, Description: REEPDW1223

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | ---: | ---: | ---: |
| 1 | 1 13C4-PFBA | 1802114-04 REEPDW1223 0.11625 | 2.50 e 4 | 130.9 | NO |
| 2 | 2 13C5-PFHxA | $1802114-04$ REEPDW1223 0.11625 | 4.80 e 4 | 79.2 | NO |
| 3 | $313 C 3-P F H x S$ | $1802114-04$ REEPDW1223 0.11625 | 7.07 e 3 | 103.5 | NO |
| 4 | $413 C 8-P F O A$ | $1802114-04$ REEPDW1223 0.11625 | 5.56 e 4 | 87.1 | NO |
| 5 | $513 C 9-P F N A$ | $1802114-04$ REEPDW1223 0.11625 | 4.55 e 4 | 79.4 | NO |
| 6 | $613 C 4-P F O S$ | $1802114-04$ REEPDW1223 0.11625 | 8.57 e 3 | 105.4 | NO |
| 7 | $713 C 6-P F D A$ | $1802114-04$ REEPDW1223 0.11625 | 5.46 e 4 | 92.0 | NO |
| 8 | $813 C 7-P F U d A$ | $1802114-04$ REEPDW1223 0.11625 | 5.90 e 4 | 92.1 | NO |

Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_83, Date: 19-Aug-2018, Time: 05:43:20, ID: 1802114-05 REEPDW1224 0.11585, Description: REEPDW1224

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802114-05 REEPDW1224 0.11585 | 2.97 e 4 | 155.4 | YES |
| 2 | 2 13C5-PFHxA | 1802114-05 REEPDW1224 0.11585 | 5.49 e 4 | 90.7 | NO |
| 3 | 3 13C3-PFHxS | 1802114-05 REEPDW1224 0.11585 | 7.52 e 3 | 110.1 | NO |
| 4 | 4 13C8-PFOA | 1802114-05 REEPDW1224 0.11585 | 5.76 e 4 | 90.3 | NO |
| 5 | 5 13C9-PFNA | 1802114-05 REEPDW1224 0.11585 | 4.46 e 4 | 77.8 | NO |
| 6 | 6 13C4-PFOS | 1802114-05 REEPDW1224 0.11585 | 8.46 e 3 | 104.0 | NO |
| 7 | 7 13C6-PFDA | 1802114-05 REEPDW1224 0.11585 | 5.52 e 4 | 93.0 | NO |
| 8 | 8 13C7-PFUdA | 1802114-05 REEPDW1224 0.11585 | 5.93 e 4 | 92.4 | NO |

Name: 180818M2_84, Date: 19-Aug-2018, Time: 05:54:07, ID: 1802114-06 REEPDW1222 0.11698, Description: REEPDW1222

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802114-06 REEPDW1222 0.11698 | 1.76 e 4 | 92.1 | NO |
| 2 | 2 13C5-PFHxA | 1802114-06 REEPDW1222 0.11698 | 3.54 e 4 | 58.5 | NO |
| 3 | 3 13C3-PFHxS | 1802114-06 REEPDW1222 0.11698 | 7.46 e 3 | 109.2 | NO |
| 4 | 4 13C8-PFOA | 1802114-06 REEPDW1222 0.11698 | 4.72 e 4 | 74.0 | NO |
| 5 | 5 13C9-PFNA | 1802114-06 REEPDW1222 0.11698 | 3.78 e 4 | 65.9 | NO |
| 6 | 6 13C4-PFOS | 1802114-06 REEPDW1222 0.11698 | 8.18 e 3 | 100.6 | NO |
| 7 | 7 13C6-PFDA | 1802114-06 REEPDW1222 0.11698 | 4.23 e 4 | 71.4 | NO |
| 8 | 8 13C7-PFUdA | 1802114-06 REEPDW1222 0.11698 | 4.91 e 4 | 76.6 | NO |

Name: 180818M2_85, Date: 19-Aug-2018, Time: 06:04:48, ID: 1802114-07 REEPDW1225 0.11542, Description: REEPDW1225

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802114-07 REEPDW1225 0.11542 | 2.78 e 4 | 145.5 | NO |
| 2 | 2 13C5-PFHxA | 1802114-07 REEPDW1225 0.11542 | 5.23 e 4 | 86.3 | NO |
| 3 | 3 13C3-PFHxS | 1802114-07 REEPDW1225 0.11542 | 8.66 e 3 | 126.8 | NO |
| 4 | 4 13C8-PFOA | 1802114-07 REEPDW1225 0.11542 | 5.36 e 4 | 84.0 | NO |
| 5 | 5 13C9-PFNA | 1802114-07 REEPDW1225 0.11542 | 4.43 e 4 | 77.2 | NO |
| 6 | 6 13C4-PFOS | 1802114-07 REEPDW1225 0.11542 | 9.85 e 3 | 121.2 | NO |
| 7 | 7 13C6-PFDA | 1802114-07 REEPDW1225 0.11542 | 5.54 e 4 | 93.4 | NO |
| 8 | 8 13C7-PFUdA | 1802114-07 REEPDW1225 0.11542 | 5.99 e 4 | 93.4 | NO |

Name: 180818M2_86, Date: 19-Aug-2018, Time: 06:15:35, ID: 1802114-08 REEPDW1229 0.11627, Description: REEPDW1229

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802114-08 REEPDW1229 0.11627 | 2.71 e 4 | 141.8 | NO |
| 2 | 2 13C5-PFHxA | 1802114-08 REEPDW1229 0.11627 | 5.28 e 4 | 87.2 | NO |
| 3 | 3 13C3-PFHxS | 1802114-08 REEPDW1229 0.11627 | 7.90 e 3 | 115.7 | NO |
| 4 | 4 13C8-PFOA | 1802114-08 REEPDW1229 0.11627 | 5.53 e 4 | 86.6 | NO |
| 5 | 5 13C9-PFNA | 1802114-08 REEPDW1229 0.11627 | 4.56 e 4 | 79.5 | NO |
| 6 | 6 13C4-PFOS | 1802114-08 REEPDW1229 0.11627 | 8.98 e 3 | 110.5 | NO |
| 7 | 7 13C6-PFDA | 1802114-08 REEPDW1229 0.11627 | 5.65 e 4 | 95.2 | NO |
| 8 | 8 13C7-PFUdA | 1802114-08 REEPDW1229 0.11627 | 6.02 e 4 | 94.0 | NO |

Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: $\quad$ F:\Projects\PFAS.PRO\Results\180818M2\IIS.qld
Last Altered: $\quad$ Sunday, August 19, 2018 13:12:05 Pacific Daylight Time Printed: $\quad$ Sunday, August 19, 2018 13:12:14 Pacific Daylight Time

Name: 180818M2_87, Date: 19-Aug-2018, Time: 06:26:16, ID: 1802114-09 REEPDW1230 0.11256, Description: REEPDW1230

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802114-09 REEPDW1230 0.11256 | 2.85 e 4 | 149.1 | NO |
| 2 | 2 13C5-PFHxA | 1802114-09 REEPDW1230 0.11256 | 5.99 e 4 | 98.8 | NO |
| 3 | 3 13C3-PFHxS | 1802114-09 REEPDW1230 0.11256 | 8.40 e 3 | 122.9 | NO |
| 4 | 4 13C8-PFOA | 1802114-09 REEPDW1230 0.11256 | 6.73 e 4 | 105.4 | NO |
| 5 | 5 13C9-PFNA | 1802114-09 REEPDW1230 0.11256 | 5.55 e 4 | 96.8 | NO |
| 6 | 6 13C4-PFOS | 1802114-09 REEPDW1230 0.11256 | 1.07 e 4 | 131.3 | NO |
| 7 | 7 13C6-PFDA | 1802114-09 REEPDW1230 0.11256 | 6.60 e 4 | 111.3 | NO |
| 8 | 8 13C7-PFUdA | 1802114-09 REEPDW1230 0.11256 | 7.20 e 4 | 112.3 | NO |

Name: 180818M2_88, Date: 19-Aug-2018, Time: 06:37:02, ID: 1802114-10 REEPDW572 0.1165, Description: REEPDW572

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | ---: | :--- |
| 1 | 1 13C4-PFBA | $1802114-10$ REEPDW572 0.1165 | 2.12 e 4 | 111.0 | NO |
| 2 | 2 13C5-PFHxA | $1802114-10$ REEPDW572 0.1165 | 4.83 e 4 | 79.8 | NO |
| 3 | $313 C 3-P F H x S$ | $1802114-10$ REEPDW572 0.1165 | 7.81 e 3 | 114.3 | NO |
| 4 | $413 C 8-P F O A$ | $1802114-10$ REEPDW572 0.1165 | 5.63 e 4 | 88.2 | NO |
| 5 | $513 C 9-P F N A$ | $1802114-10$ REEPDW572 0.1165 | 4.77 e 4 | 83.1 | NO |
| 6 | $613 C 4-P F O S$ | $1802114-10$ REEPDW572 0.1165 | 9.44 e 3 | 116.1 | NO |
| 7 | $713 C 6-P F D A$ | $1802114-10$ REEPDW572 0.1165 | 5.78 e 4 | 97.5 | NO |
| 8 | $813 C 7-P F U d A$ | $1802114-10$ REEPDW572 0.1165 | 6.15 e 4 | 96.0 | NO |

Name: 180818M2_89, Date: 19-Aug-2018, Time: 06:47:43, ID: IPA, Description: IPA

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | IPA |  |  | NO |
| 2 | 2 13C5-PFHxA | IPA | 1.05 e 1 | 0.0 | YES |
| 3 | 3 13C3-PFHxS | IPA |  |  | NO |
| 4 | 4 13C8-PFOA | IPA | 2.05 e 1 | 0.0 | YES |
| 5 | 5 13C9-PFNA | IPA |  |  | NO |
| 6 | 6 13C4-PFOS | IPA |  |  | NO |
| 7 | 7 13C6-PFDA | IPA |  |  | NO |
| 8 | 8 13C7-PFUdA | IPA |  |  | NO |

Name: 180818M2_90, Date: 19-Aug-2018, Time: 06:58:30, ID: ST180818M2-15 PFC CS3 18H0906, Description: PFC CS3 18 H0906

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | ---: |
| 1 | 1 13C4-PFBA | ST180818M2-15 PFC CS3 18H0906 | 2.20 e 4 | 115.1 | NO |
| 2 | $213 C 5-P F H x A$ | ST180818M2-15 PFC CS3 18H0906 | 6.36 e 4 | 105.1 | NO |
| 3 | $313 C 3-P F H x S$ | ST180818M2-15 PFC CS3 18H0906 | 1.09 e 4 | 159.6 | YES |
| 4 | $413 C 8-P F O A$ | ST180818M2-15 PFC CS3 18H0906 | 9.69 e 4 | 151.9 | YES |
| 5 | $513 C 9-P F N A$ | ST180818M2-15 PFC CS3 18H0906 | 8.92 e 4 | 155.4 | YES |
| 6 | $613 C 4-P F O S$ | ST180818M2-15 PFC CS3 18H0906 | 1.18 e 4 | 144.8 | NO |
| 7 | $713 C 6-P F D A$ | ST180818M2-15 PFC CS3 18H0906 | 8.77 e 4 | 147.9 | NO |
| 8 | $813 C 7-P F U d A$ | ST180818M2-15 PFC CS3 18H0906 | 8.90 e 4 | 138.9 | NO |

Quantify Sample Summary Report
Vista Analytical Laboratory

Dataset: Untitled
Last Altered: Monday, August 20, 2018 19:15:54 Pacific Daylight Time
Printed: $\quad$ Monday, August 20, 2018 19:17:36 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_RS-8-15-18.mdb 16 Aug 2018 12:25:46 Calibration: 20 Aug 2018 19:15:53

Name: 180818M2_91, Date: 19-Aug-2018, Time: 07:09:12, ID: 1802114-11 REEPDW1231 0.11483, Description: REEPDW1231

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802114-11 REEPDW1231 0.11483 | 2.93 e 4 | 157.7 | YES |
| 2 | 2 13C5-PFHxA | 1802114-11 REEPDW1231 0.11483 | 5.89 e 4 | 97.2 | NO |
| 3 | 3 13C3-PFHxS | 1802114-11 REEPDW1231 0.11483 | 8.23 e 3 | 120.4 | NO |
| 4 | 4 13C8-PFOA | 1802114-11 REEPDW1231 0.11483 | 6.47 e 4 | 101.5 | NO |
| 5 | 5 13C9-PFNA | 1802114-11 REEPDW1231 0.11483 | 5.16 e 4 | 90.0 | NO |
| 6 | 6 13C4-PFOS | 1802114-11 REEPDW1231 0.11483 | 9.47 e 3 | 116.6 | NO |
| 7 | 7 13C6-PFDA | 1802114-11 REEPDW1231 0.11483 | 6.10 e 4 | 102.9 | NO |
| 8 | 8 13C7-PFUdA | 1802114-11 REEPDW1231 0.11483 | 6.55 e 4 | 102.2 | NO |

Name: 180818M2_92, Date: 19-Aug-2018, Time: 07:19:58, ID: 1802144-01 YEAGR-ML-FL014-MW004-072718 0.11628, Description: YEAGR-ML-FL014-MW004-072718

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802144-01 YEAGR-ML-FL014-MW004... | 2.89 e 4 | 155.4 | YES |
| 2 | 2 13C5-PFHxA | 1802144-01 YEAGR-ML-FL014-MW004... | 4.38 e 4 | 72.3 | NO |
| 3 | 3 13C3-PFHxS | 1802144-01 YEAGR-ML-FL014-MW004... | 3.89e3 | 57.0 | NO |
| 4 | 4 13C8-PFOA | 1802144-01 YEAGR-ML-FL014-MW004... | 6.14 e 4 | 96.1 | NO |
| 5 | 5 13C9-PFNA | 1802144-01 YEAGR-ML-FL014-MW004... | 5.70 e 4 | 99.3 | NO |
| 6 | 6 13C4-PFOS | 1802144-01 YEAGR-ML-FL014-MW004... | 5.81 e 3 | 71.4 | NO |
| 7 | 7 13C6-PFDA | 1802144-01 YEAGR-ML-FL014-MW004... | 6.45 e 4 | 108.7 | NO |
| 8 | 8 13C7-PFUdA | 1802144-01 YEAGR-ML-FL014-MW004... | 7.44 e 4 | 116.0 | NO |

Name: 180818M2_93, Date: 19-Aug-2018, Time: 07:30:39, ID: 1802144-02 YEAGR-DUP1-072718 0.11135, Description: YEAGR-DUP1-072718

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1802144-02 YEAGR-DUP1-072718 0.1... | 2.84 e 4 | 152.9 | YES |
| 2 | 2 13C5-PFHxA | 1802144-02 YEAGR-DUP1-072718 0.1... | 4.26 e 4 | 70.4 | NO |
| 3 | 3 13C3-PFHxS | 1802144-02 YEAGR-DUP1-072718 0.1... | 3.88 e 3 | 56.8 | NO |
| 4 | 4 13C8-PFOA | 1802144-02 YEAGR-DUP1-072718 0.1... | 5.74 e 4 | 89.9 | NO |
| 5 | 5 13C9-PFNA | 1802144-02 YEAGR-DUP1-072718 0.1... | 5.45 e 4 | 95.0 | NO |
| 6 | 6 13C4-PFOS | 1802144-02 YEAGR-DUP1-072718 0.1... | 5.61 e 3 | 69.0 | NO |
| 7 | 7 13C6-PFDA | 1802144-02 YEAGR-DUP1-072718 0.1... | 6.16 e 4 | 103.9 | NO |
| 8 | 8 13C7-PFUdA | 1802144-02 YEAGR-DUP1-072718 0.1... | 6.75 e 4 | 105.3 | NO |


| Dataset: | Untitled |
| :--- | :--- |
|  |  |
| Last Altered: | Monday, August 20, 2018 16:36:38 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 16:36:42 Pacific Daylight Time |

## \section*{Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57} <br> Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA


## 13C3-PFBA

F3:MRM of 1 channel,ES-



13C3-PFPeA
F6:MRM of 1 channel,ES-
$266 .>221.8$
$7.565 \mathrm{e}+002$


PFBS


13C3-PFBS


## 4:2 FTS




13C2-4:2 FTS



| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Monday, August 20, 2018 16:36:38 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 16:36:42 Pacific Daylight Time |

## Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA



13C2-6:2 FTS



F18:MRM of 2 channels,ES-


1802-PFHxS



13C2-PFOA



| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Monday, August 20, 2018 16:36:38 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 16:36:42 Pacific Daylight Time |

Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA

## PFOSA <br> F30:MRM of 2 channels,ES- <br> 

F30:MRM of 2 channels,ES-
498 > 169 $1.000 \mathrm{e}-003$


PFDA
F37:MRM of 2 channels,ES-
$513>468.8$
$7.144 \mathrm{e}+002$


F37:MRM of 2 channels, ES- $\begin{array}{r}513>219 \\ 2.926 \mathrm{e}+001\end{array}$

## 13C8-PFOS




13C2-8:2 FTS




13C8-PFOS
F35:MRM of 1 channel,ES-
$-\quad 507.0>79.9$


## L-MeFOSAA <br> $570>419$ $2.835 \mathrm{e}+002$


d3-N-MeFOSAA


| Dataset: | Untitled |
| :--- | :--- |
|  |  |
| Last Altered: | Monday, August 20, 2018 16:36:38 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 16:36:42 Pacific Daylight Time |

Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA


F51:MRM of 2 channels,ES $584.1>526$


## d5-N-EtFOSAA




13C8-PFOS




F46:MRM of 2 channels,ES-



F36:MRM of 2 channels,ES512.1 > 219

d3-N-MeFOSA



F60:MRM of 2 channels,ES-
$662.9>319$


13C2-PFDoA


## Dataset: Untitled

Last Altered: Monday, August 20, 2018 16:36:38 Pacific Daylight Time
Printed:
Monday, August 20, 2018 16:36:42 Pacific Daylight Time

## Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA



F61:MRM of 2 channels,ES-


## 13C2-PFTeDA



F41:MRM of 2 channels,ES-

d5-N-ETFOSA


13C2-PFHxDA


13C2-PFHxDA


d7-N-MeFOSE


d9-N-EtFOSE


| Dataset: | Untitled |
| :--- | :--- |
|  |  |
| Last Altered: | Monday, August 20, 2018 16:36:38 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 16:36:42 Pacific Daylight Time |

Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA


## 13C6-PFDA







LC Calibration Standards Review Checklist $\square$


| Full Mass Cal. Date: $8 / 13$ | 18 |
| :--- | :--- | :--- | :--- |
| 8 |  |



Comments:


ID: LR-LCSRC
Rev. No.: 1

Monday, August 20, 2018 15:29:31 Pacific Daylight Time
Printed:
Monday, August 20, 2018 15:29:35 Pacific Daylight Time

## Name: 180818M2_37, Date: 18-Aug-2018, Time: 21:30:00, ID: ST180818M2-11 PFC CS3 18H0906, Description: PFC CS3 18H0906



Name: 180818M2_37, Date: 18-Aug-2018, Time: 21:30:00, ID: ST180818M2-11 PFC CS3 18H0906, Description: PFC CS3 18 H 0906


Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-37.qid
Last Altered: Monday, August 20, 2018 15:29:31 Pacific Daylight Time
Printed: $\quad$ Monday, August 20, 2018 15:29:35 Pacific Daylight Time

Name: 180818M2_37, Date: 18-Aug-2018, Time: 21:30:00, ID: ST180818M2-11 PFC CS3 18H0906, Description: PFC CS3 18H0906


Method: F:|Projects|PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57 Calibration: F:IProjects\PFAS.PRO\CurveDBIC18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

## Compound name: PFBA

|  | \# Name | 1 D | Acq.Date | Acq Time |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_1 | IPA | 18-Aug-18 | 15:03:29 |
| 2 | 2 180818M2_2 | ST180818M2-1 PFC CS-2 18H0901 | 18-Aug-18 | 15:14:28 |
| $3$ | 3180818 M 233 | ST180818M2-2 PFC CS-1 18H0902 | 18-Aug-18 | 15:25:13 |
| $14$ | 4 180818M2_4 | ST180818M2-3 PFC CSO 18H0903 | 18-Aug-18 | 15:35:53 |
| 5:tit | 5 180818M2_5 | ST180818M2-4 PFC CS1 18H0904 | 18-Aug-18 | 15:46:40 |
| 6 | $6180818 \mathrm{M} 2 \ldots 6$ | ST180818M2-5 PFC CS2 18H0905 | 18-Aug-18 | 15:57:21 |
| 7 | 7 180818M2_7 | ST180818M2-6 PFC CS3 18H0906 | 18-Aug-18 | 16:08:07 |
| 8 \% | 8 180818M2_8 | ST180818M2-7 PFC CS4 18H0907 | 18-Aug-18 | 16:18:53 |
| 9 | 9 180818M2_9 | ST180818M2-8 PFC CS5 18H0908 | 18-Aug-18 | 16:29:34 |
| 11 | 10 180818M2_10 | ST180818M2-9 PFC CS6 18H0909 | 18-Aug-18 | 16:40:21 |
| 11 | 11 180818M2_11 | ST-180818M2-10 PFC CS7 18 H 0910 | 18-Aug-18 | 16:51:02 |
| 12 | 12 180818M2_12 | IPA | 18-Aug-18 | 17:01:48 |
| 13 | 13 180818M2_13 | ICV180818M2-1 PFC 537 ICV 18H0911 | 18-Aug-18 | 17:12:30 |
| 14. | 14 180818M2_14 | 1801963-01 Bemidji Pilot APR2 Lead 0.2... | 18-Aug-18 | 17:23:17 |
| 15 \% | 15 180818M2_15 | 1801963-02 Bemidji Piot PSR2 + 0.2439 | 18-Aug-18 | 17:33:58 |
| 16 | 16 180818M2_16 | 1801963-03 Bemidji Pilot INF 0.24699 | 18-Aug-18 | 17:44:36 |
| 17.1. | 17 180818M2_17 | B8G0097-BS1 OPR 1 | 18-Aug-18 | 17:55:23 |
| 18 | 18 180818M2_18 | B8G0238-BS1 OPR 0.25 | 18-Aug-18 | 18:06:09 |
| 19 | 19 180818M2_19 | B8G0238-MS1 Matrix Spike 0.24901 | 18-Aug-18 | 18:16:50 |
| 20 | 20 180818M2_20 | B8G0238-MSD1 Matrix Spike Dup 0.245... | 18-Aug-18 | 18:27:36 |
| 21 | 21 180818M2_21 | B8G0238-BLK1 Method Blank 0.25 | 18-Aug-18 | 18:38:18 |
| 22. | 22 180818M2_22 | 1802055-01 Clarks-DW-0725180.24525 | 18-Aug-18 | 18:49:04 |
| 23 | 23 180818M2_23 | 1802055-02 Clarks-FB-072518 0.2438 | 18-Aug-18 | 18:59:44 |
| 24 | 24 180818M2_24 | 1802055-03 Shop Pasture-DW-072518 ... | 18-Aug-18 | 19:10:31 |
| 25 | 25 180818M2_25 | 1802055-04 Shop Pasture-FB-0725180... | 18-Aug-18 | 19:21:11 |
| $26$ | 26 180818M2_26 | 1802055-05 Welder HQ-DW-072518 0.2... | 18-Aug-18 | 19:31:57 |
| 27 | 27 180818M2_27 | 1802055-06 Welder HQ-FB-072518 0.2... | 18-Aug-18 | 19:42:38 |
| 28 | 28 180818M2_28 | 1802055-07 Lupes House-DW-072518... | 18-Aug-18 | 19:53:25 |
| 29 | 29 180818M2_29 | 1802055-08 Lupes House-FB-072518 0.... | 18-Aug-18 | 20:04:11 |
| 30 | $30180818 \mathrm{M} 2 \_30$ | 1802055-09 Charlies-DW-072518 0.243... | 18-Aug-18 | 20:14:52 |
| 31. | $31180818 \mathrm{M} 2 \ldots 31$ | 1802055-10 Charlies-FB-072518 0.2447 | 18-Aug-18 | 20:25:39 |
| 32.4 | $32180818 \mathrm{M} 2=32$ | 1802055-11 Hortzendorf-DW-072518 0.... | 18-Aug-18 | 20:36:20 |

Last Altered: Monday, August 20, 2018 15:35:27 Pacific Daylight Time
Printed:
Monday, August 20, 2018 15:35:41 Pacific Daylight Time

## Compound name: PFBA

|  | \# Name | 1 D | Acc. Date | Acq.Time |
| :---: | :---: | :---: | :---: | :---: |
| 33 | $33180818 \mathrm{M} 2 \ldots 3$ | 1802055-12 Hortzendorf-FB-072518 0.2... | 18-Aug-18 | 20:47:07 |
| 34 | 34180818 M 2 _34 | 1802055-13 Charlies Pasture-DW-0725... | 18-Aug-18 | 20:57:47 |
| 35 | 35180818 M 2 _35 | 1802055-14 Chaties Pasture-FB-07251... | 18-Aug-18 | 21:08:34 |
| 36 | 36180818 M 2 _ 36 | IPA | 18-Aug-18 | 21:19:13 |
| 37 | 37 180818M2_37 | ST180818M2-11 PFC CS3 18H0906 | 18-Aug-18 | 21:30:00 |
| 38 | 38180818 M 2 _38 | 1802055-15 Shooting Range 1-DW-072... | 18-Aug-18 | 21:40:41 |
| 39 | 39180818 M 2 _39 | 1802055-16 Shooting Range 1-FB-0725... | 18-Aug-18 | 21:51:28 |
| 40 | 40180818 M 2 _40 | 1802055-17 DUP-1 0.24858 | 18-Aug-18 | 22:02:09 |
|  | 41 180818M2_41 | B8G0245-BS1 OPR 0.125 | 18-Aug-18 | 22:12:55 |
| 42 | 42 180818M2_42 | B8G0245-BSD1 LCSD 0.125 | 18-Aug-18 | 22:23:35 |
| 43 | 43 180818M2_43 | B8G0245-BLK1 Method Blank 0.125 | 18-Aug-18 | 22:34:22 |
| 44 | 44 180818M2_44 | 1801974-01 PFAS-STP-SO-EB01 0.097... | 18-Aug-18 | 22:45:02 |
| 45 | $45180818 \mathrm{M} 2 \ldots 45$ | 1802091-01 REEPDW12120.11629 | 18-Aug-18 | 22:55:48 |
| 46 | 46 180818M2_46 | 1802091-02 REEPDW1213 0.12052 | 18-Aug-18 | 23:06:29 |
| 47 | 47 180818M2_47 | 1802091-03 REEPDW12140.11773 | 18-Aug-18 | 23:17:15 |
| 48 | 48 180818M2_48 | 1802091-04 REEPDW12150.12338 | 18-Aug-18 | 23:27:56 |
| 49 | 49 180818M2_49 | 1802091-05 REEPDW 12160.11745 | 18-Aug-18 | 23:38:43 |
| 50 | 50 180818M2_50 | 1802092-01 REEPDW1212FRB 0.11995 | 18-Aug-18 | 23:49:24 |
|  | 51 180818M2_51 | 1802092-02 REEPDW1213FRB 0.1184 | 19-Aug-18 | 00:00:10 |
| 52 | 52 180818M2_52 | 1802092-03 REEPDW1214FRB 0.11426 | 19-Aug-18 | 00:10:56 |
| mir | 53 180818M2_53 | 1802092-04 REEPDW 1215FRB 0.11712 | 19-Aug-18 | 00:21:37 |
| 54 | 54 180818M2_54 | 1802092-05 REEPDW1216FRB 0.1201 | 19-Aug-18 | 00:32:24 |
| 55 | 55 180818M2_55 | 1802095-01 REEPDW12180.11778 | 19-Aug-18 | 00:43:10 |
| 56 | 56 180818M2_56 | IPA | 19-Aug-18 | 00:53:52 |
| 57 | 57 180818M2_57 | ST180818M2-12 PFC CS3 18H0906 | 19-Aug-18 | 01:04:30 |
|  | 58 180818M2_58 | 1802095-02 REEPDW12170.12064 | 19-Aug-18 | 01:15:16 |
| 59 | 59 180818M2_59 | 1802095-03 REEPDW 12190.1196 | 19-Aug-18 | 01:25:58 |
| 60 | 60 180818M2_60 | 1802096-01 REEPDW1218FRB 0.12181 | 19-Aug-18 | 01:36:45 |
| 61 | 61 180818M2_61 | 1802096-02 REEPDW 1217FRB 0.12124 | 19-Aug-18 | 01:47:26 |
| 62 | 62 180818M2_62 | 1802096-03 REEPDW 1219FRB 0.11784 | 19-Aug-18 | 01:58:12 |
| 63 | 63 180818M2_63 | 1802115-01 REEPDW 1220 FRB 0.1158 | 19-Aug-18 | 02:08:54 |
| 64 | 64 180818M2_64 | 1802115-02 REEPDW 1221 FRB 0.11562 | 19-Aug-18 | 02:19:40 |
| 65 | 65 180818M2_65 | 1802115-03 REEPDW1223FRB 0.11727 | 19-Aug-18 | 02:30:22 |
| 66 | 66 180818M2_66 | 1802115-04 REEPDW 1224FRB 0.11767 | 19-Aug-18 | 02:41:08 |
| 67 | 67 180818M2_67 | 1802115-05 REEPDW1222FRB 0.11639 | 19-Aug-18 | 02:51:49 |
| 68: | 68 180818M2_68 | 18021 15-06 REEPDW1225FRB 0.11206 | 19-Aug-18 | 03:02:28 |

[^0]Last Altered: Monday, August 20, 2018 15:35:27 Pacific Daylight Time
Printed:
Monday, August 20, 2018 15:35:41 Pacific Daylight Time

## Compound name: PFBA

|  | \# Name | $\overline{10}$ | Aca. Date | Acg.Time |
| :---: | :---: | :---: | :---: | :---: |
| 69 | 69 180818M2_69 | IPA | 19-Aug-18 | 03:13:14 |
| 70 . | 70 180818M2_70 | ST180818M2-13 PFC CS3 18 H 0906 | 19-Aug-18 | 03:23:52 |
| 71 | 71 180818M2_71 | ST180818M2-14 PFC CS0 18H0903 | 19-Aug-18 | 03:34:39 |
| 72 | 72 180818M2_72 | 1802115-07 REEPDW 1229 FRB 0.11554 | 19-Aug-18 | 03:45:25 |
|  | 73 180818M2_73 | 1802115-08 REEPDW 1230FRB 0.11545 | 19-Aug-18 | 03:56:07 |
| 74 | 74 180818M2_74 | 1802115-09 REEPDW1231FRB 0.11589 | 19-Aug-18 | 04:06:53 |
| 75 | 75 180818M2_75 | B8H0016-BS1 OPR 0.125 | 19-Aug-18 | 04:17:34 |
| 76 | 76 180818M2_76 | B8H0016-BLK1 Method Blank 0.125 | 19-Aug-18 | 04:28:20 |
|  | 77 180818M2_77 | B8H0016-MS1 Matrix Spike 0.11005 | 19-Aug-18 | 04:39:02 |
| 78 | 78 180818M2_78 | B8H0016-MSD1 Matrix Spike Dup 0.114... | 19-Aug-18 | 04:49:48 |
| 79 | 79 180818M2_79 | 1802114-01 REEPDW1220 0.11573 | 19-Aug-18 | 05:00:28 |
| 80 | 80 180818M2_80 | 1802114-02 REEPDW571 0.11327 | 19-Aug-18 | 05:11:14 |
| 81 | 81 180818M2_81 | 1802114-03 REEPDW 12210.11667 | 19-Aug-18 | 05:21:56 |
| 82. | 82 180818M2_82 | 1802114-04 REEPDW12230.11625 | 19-Aug-18 | 05:32:34 |
| 83 | 83 180818M2_83 | 1802114-05 REEPDW12240.11585 | 19-Aug-18 | 05:43:20 |
| 84 | 84 180818M2_84 | 1802114-06 REEPDW1222 0.11698 | 19-Aug-18 | 05:54:07 |
| 85 | $85180818 \mathrm{M} 2 \_85$ | 1802114-07 REEPDW12250.11542 | 19-Aug-18 | 06:04:48 |
| 86 | $86180818 \mathrm{M} 2 \_86$ | 1802114-08 REEPDW1229 0.11627 | 19-Aug-18 | 06:15:35 |
| 87 | 87 180818M2_87 | 1802114-09 REEPDW 12300.11256 | 19-Aug-18 | 06:26:16 |
| 88 | 88 180818M2_88 | 1802114-10 REEPDW572 0.1165 | 19-Aug-18 | 06:37:02 |
| 89 | 89 180818M2_89 | IPA | 19-Aug-18 | 06:47:43 |
| 90 \% M | 90180818 M 2 _90 | ST180818M2-15 PFC CS3 18H0906 | 19-Aug-18 | 06:58:30 |

Last Altered: Monday, August 20, 2018 15:29:31 Pacific Daylight Time

Printed: Monday, August 20, 2018 15:29:35 Pacific Daylight Time

## Method: Z:IProjectsIPFAS.prolMethDBIPFAS_FULL_80C_081818.mdb 19 Aug 2018 11:58:52

Calibration: Z:IProjects|PFAS.prolCurveDBIC18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56
Name: 180818M2_37, Date: 18-Aug-2018, Time: 21:30:00, ID: ST180818M2-11 PFC CS3 18H0906, Description: PFC CS3 18 H 0906


13C3-PFBA





## 13C3-PFBS

F8:MRM of 1 channel,ES-
$302 .>98.8$
$8.025 \mathrm{e}+004$
13C2-4:2 FTS



F9:MRM of 2 channels,ES-




## 13C3-PFBS



Page 196 of 364

| Quantify Sample Report <br> Vista Analytical Laboratory | MassLynx MassLynx V4.1 SCN945 SCN960 |
| :--- | :--- | :--- |
| Dataset: | F:IProjects\PFAS.PROIResults1180818M21180818M2-37.qld |
|  |  |
| Last Altered: | Monday, August 20, 2018 15:29:31 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 15:29:35 Pacific Daylight Time |

## Name: 180818M2_37, Date: 18-Aug-2018, Time: 21:30:00, ID: ST180818M2-11 PFC CS3 18H0906, Description: PFC CS3 18 H0906



Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-37.qld
Last Altered: Monday, August 20, 2018 15:29:31 Pacific Daylight Time
Printed: Monday, August 20, 2018 15:29:35 Pacific Daylight Time

Name: 180818M2_37, Date: 18-Aug-2018, Time: 21:30:00, ID: ST180818M2-11 PFC CS3 18H0906, Description: PFC CS3 18 H 0906


F30:MRM of 2 channels, ES$\begin{array}{r}498>169 \\ 7.986 \mathrm{e}+003 \\ 100 \\ \hline\end{array}$

## 13C8-PFOSA

F34:MRM of 1 channel,ES$506.1>77.7$
$3.309 \mathrm{e}+005$




13C8-PFOS
F35:MRM of 1 channel,ES-
$507.0>79.9$




F37:MRM of 2 channels, ES-


## 13C2-PFDA

F38:MRM of 1 channel,ES-
$515.1>469.9$
$\begin{array}{r}515.1>469.9 \\ 100 \\ \hline\end{array}$



F42:MRM of 2 channels,ES-
$527>80$


## 13C2-8:2 FTS




F45:MRM of 2 channels,ES-
$549.1>99.1$


13C8-PFOS
F35:MRM of 1 channel,ES-
$507.0>79.9$




F48:MRM of 2 channels,ES-
570. > 512

d3-N-MeFOSAA
F50:MRM of 1 channel,ES$573.3>419$


| Last Altered: | Monday, August 20, 2018 15:29:31 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Monday, August 20, 2018 15:29:35 Pacific Daylight Time |

Name: 180818M2_37, Date: 18-Aug-2018, Time: 21:30:00, ID: ST180818M2-11 PFC CS3 18H0906, Description: PFC CS3 18 H 0906


Dataset:
F:IProjects\PFAS.PRO\Results\180818M21180818M2-37.qld
Last Altered:
Monday, August 20, 2018 15:29:31 Pacific Daylight Time
Printed: Monday, August 20, 2018 15:29:35 Pacific Daylight Time

Name: 180818M2_37, Date: 18-Aug-2018, Time: 21:30:00, ID: ST180818M2-11 PFC CS3 18H0906, Description: PFC CS3 18 H 0906
PFTEDA
F61:MRM of 2 channels,ES-
$712.8>669.0$
100


## 13C2-PFTeDA

F62:MRM of 2 channels,ES$14.8>669.6$ $1.345 \mathrm{e}+006$



F41:MRM of 2 channels,ES526.1 > 219 $3.045 \mathrm{e}+005$

d5-N-ETFOSA
F44:MRM of 1 channel,ES$531.1>168.9$


## PFHxDA

F63:MRM of 2 channels,ES-
$813.1>768.6$
$1.003 \mathrm{e}+006$


13C2-PFHxDA
F64:MRM of 1 channel,ES$815>769.7$ $7.296 \mathrm{e}+005$



## 13C2-PFHxDA

F64:MRM of 1 channel,ES$815>769.7$



## d7-N-MeFOSE

F57:MRM of 1 channel,ES-
$623.1>58.9$


d9-N-EtFOSE
F59:MRM of 1 channel,ES$639.2>58.8$


Last Altered: Monday, August 20, 2018 15:29:31 Pacific Daylight Time
Printed: Monday, August 20, 2018 15:29:35 Pacific Daylight Time

Name: 180818M2_37, Date: 18-Aug-2018, Time: 21:30:00, ID: ST180818M2-11 PFC CS3 18H0906, Description: PFC CS3 18 H 0906


Last Altered: Monday, August 20, 2018 14:43:39 Pacific Daylight Time

## Name: 180818M2_57, Date: 19-Aug-2018, Time: 01:04:30, ID: ST180818M2-12 PFC CS3 18H0906, Description: PFC CS3 18H0906



Last Altered: Monday, August 20, 2018 14:43:39 Pacific Daylight Time
Printed:
Monday, August 20, 2018 15:26:56 Pacific Daylight Time

## Name: 180818M2_57, Date: 19-Aug-2018, Time: 01:04:30, ID: ST180818M2-12 PFC CS3 18H0906, Description: PFC CS3 18H0906

 Monday, August 20, 2018 15:26:56 Pacific Daylight Time

## Name: 180818M2_57, Date: 19-Aug-2018, Time: 01:04:30, ID: ST180818M2-12 PFC CS3 18H0906, Description: PFC CS3 18H0906

|  | \# Name | Trace | Area | IS Area | wituol | RT | Response | Conc. | \%Rec Recovery ..- Ion Ratio Ratio Out? |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 69 | 63 13C8-PFOA | $420.9>376$ | 81542.023 | 81542.023 | 1.00 | 4.01 | 12.500 | 12.5 | 100.0 | NO |  |
| 70 | 64 13C9-PFNA | $472.2>426.9$ | 73475.914 | 73475.914 | 1.00 | 4.46 | 12.500 | 12.5 | 100.0 | NO |  |
| 71 | 65 13C4-PFOS | $503>79.9$ | 9504.548 | 9504.548 | 1.00 | 4.55 | 12.500 | 12.5 | 100.0 | NO |  |
| 72 | 66 13C6-PFDA | $519.1>473.7$ | 75448.430 | 75448.430 | 1.00 | 4.85 | 12.500 | 12.5 | 100.0 | NO |  |
| 73 | 67 13C7-PFUdA | $570.1>524.8$ | 77707.539 | 77707.539 | 1.00 | 5.18 | 12.500 | 12.5 | 100.0 | NO |  |

Method: F:|Projects|PFAS.PRO|MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57 Calibration: F:\Projects\PFAS.PRO\CurveDBIC18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

## Compound name: PFBA



Untitled
Last Altered: Monday, August 20, 2018 15:35:27 Pacific Daylight Time
Printed:
Monday, August 20, 2018 15:35:41 Pacific Daylight Time

## Compound name: PFBA

| 4 | \# Name | 10 | Acq. Date | Acq. Time |
| :---: | :---: | :---: | :---: | :---: |
| 33 | $33180818 \mathrm{M} 2 \ldots 33$ | 1802055-12 Hortzendorf-FB-072518 0.2... | 18-Aug-18 | 20:47:07 |
| 34 | 34180818 M 2 _34 | 1802055-13 Charlies Pasture-DW-0725... | 18-Aug-18 | 20:57:47 |
| 35 | $35180818 \mathrm{M} 2 \ldots 35$ | 1802055-14 Charlies Pasture-FB-07251... | 18-Aug-18 | 21:08:34 |
| 36 | 36180818 M 2 _36 | IPA | 18-Aug-18 | 21:19:13 |
| 37 | 37 180818M2_37 | ST180818M2-11 PFC CS3 18H0906 | 18-Aug-18 | 21:30:00 |
| 38 | 38180818 M 2 _38 | 1802055-15 Shooting Range 1-DW-072... | 18-Aug-18 | 21:40:41 |
| 39 | 39 180818M2_39 | 1802055-16 Shooting Range 1-FB-0725... | 18-Aug-18 | 21:51:28 |
| 40 | 40 180818M2_40 | 1802055-17 DUP-1 0.24858 | 18-Aug-18 | 22:02:09 |
| 41 | 41 180818M2_41 | B8G0245-BS1 OPR 0.125 | 18-Aug-18 | 22:12:55 |
| 42 | 42 180818M2_42 | B8G0245-BSD1 LCSD 0.125 | 18-Aug-18 | 22:23:35 |
| 43 | 43 180818M2_43 | B8G0245-BLK1 Method Blank 0.125 | 18-Aug-18 | 22:34:22 |
| 44 | 44 180818M2_44 | 1801974-01 PFAS-STP-SO-EB01 0.097... | 18-Aug-18 | 22:45:02 |
| 45 | 45 180818M2_45 | 1802091-01 REEPDW12120.11629 | 18-Aug-18 | 22:55:48 |
| 46 | 46 180818M2_46 | 1802091-02 REEPDW12130.12052 | 18-Aug-18 | 23:06:29 |
| 47 | 47 180818M2_47 | 1802091-03 REEPDW12140.11773 | 18-Aug-18 | 23:17:15 |
| 48 | 48 180818M2_48 | 1802091-04 REEPDW12150.12338 | 18-Aug-18 | 23:27:56 |
| 49 | 49 180818M2_49 | 1802091-05 REEPDW12160.11745 | 18-Aug-18 | 23:38:43 |
| 50 | 50180818 M 2 _50 | 1802092-01 REEPDW1212FRB 0.11995 | 18-Aug-18 | 23:49:24 |
| 51 | 51 180818M2_51 | 1802092-02 REEPDW1213FRB 0.1184 | 19-Aug-18 | 00:00:10 |
| 52 | 52 180818M2_52 | 1802092-03 REEPDW1214FRB 0.11426 | 19-Aug-18 | 00:10:56 |
| 53 | 53 180818M2_53 | 1802092-04 REEPDW1215FRB 0.11712 | 19-Aug-18 | 00:21:37 |
| 54 | 54 180818M2_54 | 1802092-05 REEPDW1216FRB 0.1201 | 19-Aug-18 | 00:32:24 |
| 55 | 55 180818M2_55 | 1802095-01 REEPDW12180.11778 | 19-Aug-18 | 00:43:10 |
| 56 | 56 180818M2_56 | IPA | 19-Aug-18 | 00:53:52 |
| 57 | 57 180818M2_57 | ST180818M2-12 PFC CS3 18H0906 | 19-Aug-18 | 01:04:30 |
| 58 | 58 180818M2_58 | 1802095-02 REEPDW12170.12064 | 19-Aug-18 | 01:15:16 |
| 59 | 59 180818M2_59 | 1802095-03 REEPDW1219 0.1196 | 19-Aug-18 | 01:25:58 |
| 60 | 60180818 M 2 _60 | 1802096-01 REEPDW1218FRB 0.12181 | 19-Aug-18 | 01:36:45 |
| 61 | 61 180818M2_61 | 1802096-02 REEPDW1217FRB 0.12124 | 19-Aug-18 | 01:47:26 |
| 62 | 62 180818M2_62 | 1802096-03 REEPDW1219FRB 0.11784 | 19-Aug-18 | 01:58:12 |
| 63 | 63 180818M2_63 | 1802115-01 REEPDW1220FRB 0.1158 | 19-Aug-18 | 02:08:54 |
| 64 | 64 180818M2_64 | 1802115-02 REEPDW1221FRB 0.11562 | 19-Aug-18 | 02:19:40 |
| 65 | 65 180818M2_65 | 1802115-03 REEPDW1223FRB 0.11727 | 19-Aug-18 | 02:30:22 |
| 66 | 66180818 M 2.66 | 1802115-04 REEPDW1224FRB 0.11767 | 19-Aug-18 | 02:41:08 |
| 67 | 67 180818M2_67 | 1802115-05 REEPDW1222FRB 0.11639 | 19-Aug-18 | 02:51:49 |
| 68 , | 68 180818M2_68 | 1802115-06 REEPDW1225FRB 0.11206 | 19-Aug-18 | 03:02:28 |

Work Order 1802055

| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Monday, August 20, 2018 15:35:27 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 15:35:41 Pacific Daylight Time |

Compound name: PFBA


Last Altered: Monday, August 20, 2018 14:43:39 Pacific Daylight Time
Printed: Monday, August 20, 2018 15:26:56 Pacific Daylight Time

Method: F:\Projects\PFAS.PROMMethDBIPFAS_FULL_80C_081818.mdb 19 Aug 2018 11:58:52 Calibration: F:IProjects\PFAS.PROICurveDBIC18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_57, Date: 19-Aug-2018, Time: 01:04:30, ID: ST180818M2-12 PFC CS3 18H0906, Description: PFC CS3 18H0906


## 13C3-PFBA

F8:MRM of 1 channel,ES-

F10:MRM of 1 channel,ES-
$315>270$


| Last Altered: | Monday, August 20, 2018 14:43:39 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Monday August 20, 2018 15:26:56 Pacific Daylight Time |

Name: 180818M2_57, Date: 19-Aug-2018, Time: 01:04:30, ID: ST180818M2-12 PFC CS3 18H0906, Description: PFC CS3 18 H 0906



Name: 180818M2_57, Date: 19-Aug-2018, Time: 01:04:30, ID: ST180818M2-12 PFC CS3 18H0906, Description: PFC CS3 18 H 0906

Dataset: F:IProjectsIPFAS.PRO\Results\180818M21180818M2-57.qld

Last Altered: Monday, August 20, 2018 14:43:39 Pacific Daylight Time
Printed: Monday, August 20, 2018 15:26:56 Pacific Daylight Time

Name: 180818M2_57, Date: 19-Aug-2018, Time: 01:04:30, ID: ST180818M2-12 PFC CS3 18H0906, Description: PFC CS3 18 H 0906




F52:MRM of 1 channel,ES-


| PFDOA |
| :--- |
| F54:MRM of 4 channels,ES- |
| $612.9>569.0$ |
| 100 |






13C8-PFOS
F35:MRM of 1 channel,ES-




13C2-PFUdA
F47:MRM of 1 channel,ES$565>519.8$



F36:MRM of 2 channels,ES-



PFTrDA
F60:MRM of 2 channels, ES$662.9>618.9$
$1.617 e+006$


F60:MRM of 2 channels,ES$662.9>319$ $5.440 \mathrm{e}+004$


13C2-PFDoA
F55:MRM of 2 channels,ES$615.0>569.7$


| Dataset: | F:IProjects\PFAS.PRO\Results\180818M2\180818M2-57.q |
| :--- | :--- |
|  |  |
| Last Altered: | Monday, August 20, 2018 14:43:39 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 15:26:56 Pacific Daylight Time |

## Name: 180818M2_57, Date: 19-Aug-2018, Time: 01:04:30, ID: ST180818M2-12 PFC CS3 18H0906, Description: PFC CS3 18 H 0906












## d7-N-MeFOSE

F57:MRM of 1 channel,ES-


N-EtFOSE
F58:MRM of 1 channel,ES$630.1>58.9$

d9-N-EtFOSE
F59:MRM of 1 channel,ES$639.2>58.8$


| Dataset: | F:\Projects 1 PFAS.PRO\Results\180818M2\180818M2-57.qld |
| :--- | :--- |
| Last Altered: | Monday, August 20, 2018 14:43:39 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 15:26:56 Pacific Daylight Time |

## Name: 180818M2_57, Date: 19-Aug-2018, Time: 01:04:30, ID: ST180818M2-12 PFC CS3 18H0906, Description: PFC CS3 18 H 0906



# INITIAL CALIBRATION (ICAL) <br> INCLUDING ASSOCIATED 

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

Last Altered: $\quad$ Sunday, August 19, 2018 12:26:56 Pacific Daylight Time

Method: F:IProjectsIPFAS.PROIMethDBIPFAS_FULL_80C_081818.mdb 18 Aug 2018 13:22:04 Calibration: F:IProjects\PFAS.PROICurveDBIC18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

## Compound name: PFBA

Correlation coefficient: $r=0.999330,{ }^{\wedge} 2=0.998661$
Calibration curve: 1.15285 * $x+-0.0303052$
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFPeA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999227$
Calibration curve: $0.000205882{ }^{*} x^{\wedge} 2+0.949168{ }^{*} x+-0.0231284$
Response type: Internal Std (Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: and Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Work Order 1802055

## Dataset:

F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 12:26:56 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 12:28:22 Pacific Daylight Time

## Compound name: PFPeA

|  |  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Cone | \%Dev | Conc. Flag | CoD | CoDFlag | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 10 | 0 180818M2_11 | Standard | 500.000 | 2.04 | 1051267.000 | 25174.316 | 521.994 | 496.5 | -0.7 | NO | 0.999 | NO | bb |

## Compound name: PFBS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997535$
Calibration curve: $0.000367652{ }^{*} x^{\wedge} 2+2.00967^{*} x+-0.144232$
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Me Std Conc | RT. | Area | IS Area | Response | Conc. | \%Dev | Cone. Flag | CoD | Cod Flag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 0.250 | 2.34 | 133.175 | 3425.504 | 0.486 | 0.3 | 25.4 | NO | 0.998 | NO | bb |
| 2 | 2 180818M2_3 | Standard | 0.500 | 2.34 | 206.924 | 3268.840 | 0.791 | 0.5 | -6.9 | NO | 0.998 | NO | bb |
| 3. | 3 180818M2_4 | Standard | 1.000 | 2.33 | 506.046 | 3351.717 | 1.887 | 1.0 | 1.1 | NO | 0.998 | NO | MM |
| $4$ | 4 180818M2_5 | Standard | 2.000 | 2.34 | 1031.386 | 3458.118 | 3.728 | 1.9 | -3.7 | NO | 0.998 | NO | MM |
| 5 | 5 180818M2_6 | Standard | 5.000 | 2.33 | 2498.523 | 3280.868 | 9.519 | 4.8 | -3.9 | NO | 0.998 | NO | MM |
| 6 | 6 180818M2_7 | Standard | 10.000 | 2.34 | 4573.160 | 3003.423 | 19.033 | 9.5 | -4.7 | NO | 0.998 | NO | MM |
| $7$ | 7 180818M2_8 | Standard | 50.000 | 2.34 | 21770.242 | 2824.817 | 96.335 | 47.6 | -4.8 | NO | 0.998 | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 100.000 | 2.34 | 42270.688 | 2820.908 | 187.310 | 91.7 | -8.3 | NO | 0.998 | NO | bb |
| 9 | 9 180818M2_10 | Standard | 250.000 | 2.34 | 110647.141 | 2450.505 | 564.410 | 267.8 | 7.1 | NO | 0.998 | NO | bb |
| 10. | $10180818 \mathrm{M} 2 \_11$ | Standard | 500.000 | 2.34 | 202513.969 | 2341.784 | 1080.981 | 493.4 | -1.3 | NO | 0.998 | NO | MM |

## Compound name: 4:2 FTS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999041$
Calibration curve: $-0.00237094^{*} x^{\wedge} 2+0.975754$ * $x+0.0265581$
Response type: Internal Std (Ref 39 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \% Name | Type | td. Conc | RT | Area | IS Area | sponse | Conc. | \%Dev | nc: | Cob | D F | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 0.250 | 2.76 | 182.885 | 9398.976 | 0.243 | 0.2 | -11.1 | NO | 0.999 | NO | bb |
| 2 | 2 180818M2_3 | Standard | 0.500 | 2.76 | 307.848 | 8641.103 | 0.445 | 0.4 | -14.1 | NO | 0.999 | NO | bb |
| 3.4 \% | 3 180818M2_4 | Standard | 1000 | 2.76 | 831.884 | 9554.598 | 1.088 | 1.1 | 9.1 | NO | 0.999 | NO | MM |
| 4 | 4 180818M2_5 | Standard | 2.000 | 2.76 | 1728.104 | 9964.151 | 2.168 | 2.2 | 10.3 | NO | 0.999 | NO | bb |
| $5$ | 5 180818M2_6 | Standard | 5.000 | 2.76 | 3600.502 | 8542.848 | 5.268 | 5.4 | 8.9 | NO | 0.999 | NO | bb |
| 6. | 6 180818M2_7 | Standard | 10.000 | 2.76 | 6507.632 | 8634.214 | 9.421 | 9.9 | -1.4 | NO | 0.999 | NO | bb |
| 7. | 7 180818M2_8 | Standard | 50.000 | 2.76 | 31094.889 | 9268.626 | 41.936 | 48.7 | -2.6 | NO | 0.999 | NO | bb |

Last Altered: $\quad$ Sunday, August 19, 2018 12:26:56 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 12:28:22 Pacific Daylight Time

## Compound name: 4:2 FTS



## Compound name: PFHxA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998963$
Calibration curve: $-2.04136 \mathrm{e}-005$ * $\mathrm{x}^{\wedge} 2+0.96052$ * $x+0.00577971$
Response type: Internal Std (Ref 40 ), Area * (IS Conc. I IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: $1 / \mathrm{x}$, Axis trans: None

| [4. | \# Name | Type | Sti. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | - CoD Flag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 0.250 | 2.85 | 1261.667 | 24885.418 | 0.253 | 0.3 | 3.2 | NO | 0.999 | NO | bb |
| 2 | 2 180818M2_3 | Standard | 0.500 | 2.85 | 2227.981 | 23492.553 | 0.474 | 0.5 | -2.5 | NO | 0.999 | NO | bb |
| 3 | 3 180818M2_4 | Standard | 1.000 | 2.85 | 5394.629 | 26398.832 | 1.022 | 1.1 | 5.8 | NO | 0.999 | NO | bb |
| 4 | 4 180818M2_5 | Standard | 2.000 | 2.85 | 10859.796 | 27189.494 | 1.997 | 2.1 | 3.7 | NO | 0.999 | NO | MM |
| 5 | 5 180818M2_6 | Standard | 5.000 | 2.85 | 21674.938 | 23211.816 | 4.669 | 4.9 | -2.9 | NO | 0.999 | NO | bb |
| 6 | 6 180818M2_7 | Standard | 10.000 | 2.85 | 43638.652 | 22833.115 | 9.556 | 9.9 | -0.6 | NO | 0.999 | NO | bb |
| $17$ | 7 180818M2_8 | Standard | 50.000 | 2.85 | 220114.891 | 23433.619 | 46.966 | 48.9 | -2.1 | NO | 0.999 | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 100.000 | 2.85 | 377231.844 | 20898.920 | 90.252 | 94.1 | -5.9 | NO | 0.999 | NO | bb |
| $9$ | 9 180818M2_10 | Standard | 250.000 | 2.85 | 1096163.375 | 21941.959 | 249.787 | 261.5 | 4.6 | NO | 0.999 | NO | bb |
| 10. | $10180818 \mathrm{M} 2 \_11$ | Standard | 500.000 | 2.85 | 1829942.375 | 19429.326 | 470.923 | 495.5 | -0.9 | NO | 0.999 | NO | bb |

## Compound name: PFPeS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997009$
Calibration curve: $0.00155504^{*} x^{\wedge} 2+2.110433^{*} x+0.175165$
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld |
| :--- | :--- |
| L.ast Altered: | Sunday, August 19, 2018 12:26:56 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 12:28:22 Pacific Daylight Time |

## Compound name: PFPeS



## Compound name: PFHpA

Correlation coefficient: $\mathrm{r}=0.999647, \mathrm{r}^{\wedge} 2=0.999294$
Calibration curve: 1.1179 * $x+0.0128617$
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | 2-1S Area | Response | Conc. | \%Dev | Conc. Fla | COD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 0.250 | 3.47 | 967.404 | 38171.957 | 0.317 | 0.3 | 8.8 | NO | 0.999 | NO | bb |
| 2 | 2 180818M2_3 | Standard | 0.500 | 3.47 | 1996.501 | 43881.137 | 0.569 | 0.5 | -0.6 | NO | 0.999 | NO | bb |
| 3. | $3180818 \mathrm{M} 2 \ldots 4$ | Standard | 1.000 | 3.47 | 3902.777 | 42102.074 | 1.159 | 1.0 | 2.5 | NO | 0.999 | NO | MM |
| 4 | 4 180818M2_5 | Standard | 2.000 | 3.47 | 7467.800 | 41441.453 | 2.253 | 2.0 | 0.2 | NO | 0.999 | NO | bb |
| 5. | $5180818 \mathrm{M} 2 \_6$ | Standard | 5.000 | 3.47 | 18580.955 | 42992.613 | 5.402 | 4.8 | -3.6 | NO | 0.999 | NO | bb |
| 6. | 6 180818M2_7 | Standard | 10.000 | 3.47 | 30000.426 | 34422.707 | 10.894 | 9.7 | -2.7 | NO | 0.999 | NO | bb |
| 7 | 7 180818M2_8 | Standard | 50.000 | 3.47 | 148614.703 | 35637.738 | 52.127 | 46.6 | -6.8 | NO | 0.999 | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 100.000 | 3.47 | 325511.625 | 36613.141 | 111.132 | 99.4 | -0.6 | NO | 0.999 | NO | bb |
| $9$ | 9 180818M2_10 | Standard | 250.000 | 3.47 | 677825.938 | 29231.311 | 289.854 | 259.3 | 3.7 | NO | 0.999 | NO | bb |
| $10{ }^{\text {a }}$ | 10 180818M2_11 | Standard | 500.000 | 3.47 | 1068614.625 | 24133.641 | 553.488 | 495.1 | -1.0 | NO | 0.999 | NO | bb |

## Dataset:

F:IProjects\PFAS.PROTResults\180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 12:26:56 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 12:28:22 Pacific Daylight Time

## Compound name: L-PFHxS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997922$
Calibration curve: 0.000203599 * $x^{\wedge} 2+1.73343 * x+-0.0243523$
Response type: Internal Std (Ref 42 ), Area * (IS Conc. IIS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 0.250 | 3.63 | 151.485 | 3553.420 | 0.533 | 0.3 | 28.6 | NO | 0.998 | NO | MM |
| $2$ | 2 180818M2_3 | Standard | 0.500 | 3.63 | 267.969 | 4187.483 | 0.800 | 0.5 | -4.9 | NO | 0.998 | NO | MM |
|  | 3 180818M2_4 | Standard | 1.000 | 3.63 | 541.838 | 3932.398 | 1.722 | 1.0 | 0.8 | NO | 0.998 | NO | MM |
| 4 | 4 180818M2_5 | Standard | 2.000 | 3.63 | 1043.601 | 4165.946 | 3.131 | 1.8 | -9.0 | NO | 0.998 | NO | MM |
| $5$ | 5 180818M2_6 | Standard | 5.000 | 3.63 | 2684.297 | 4079.768 | 8.224 | 4.8 | -4.9 | NO | 0.998 | NO | MM |
| 6 | $6180818 \mathrm{M} 2 \ldots 7$ | Standard | 10.000 | 3.63 | 4318.796 | 3481.321 | 15.507 | 9.0 | -10.5 | NO | 0.998 | NO | MM |
| $7$ | 7 180818M2_8 | Standard | 50.000 | 3.63 | 22494.629 | 3379.221 | 83.209 | 47.7 | -4.5 | NO | 0.998 | NO | MM |
| 8 | 8 180818M2_9 | Standard | 100.000 | 3.63 | 45717.910 | 3490.108 | 163.741 | 93.4 | -6.6 | NO | 0.998 | NO | MM |
| $9$ | 9 180818M2_10 | Standard | 250.000 | 3.63 | 101724.641 | 2668.053 | 476.586 | 266.6 | 6.6 | NO | 0.998 | NO | MM |
| 10 | 10 180818M2_11 | Standard | 500.000 | 3.63 | 170312.016 | 2352.161 | 905.083 | 493.5 | -1.3 | NO | 0.998 | NO | MM |

## Compound name: 6:2 FTS

Coefficient of Determination: $R^{\wedge} 2=0.999516$
Calibration curve: $-0.00268909{ }^{*} x^{\wedge} 2+1.04265 * x+0.0289747$
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

| $\sqrt{4 x}$ | \# Name | Type | Std. Conc | RT. | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | ( CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 0.250 | 3.94 | 215.317 | 9431.319 | 0.285 | 0.2 | -1.6 | NO | 1.000 | NO | bb |
| 2 | 2 180818M2_3 | Standard | 0.500 | 3.95 | 419.465 | 10141.290 | 0.517 | 0.5 | -6.3 | NO | 1.000 | NO | bb |
| 3 | 3 180818M2_4 | Standard | 1.000 | 3.94 | 934.008 | 10143.395 | 1.151 | 1.1 | 7.9 | NO | 1.000 | NO | bb |
| 4 | 4 180818M2_5 | Standard | 2.000 | 3.95 | 1896.080 | 10481.923 | 2.261 | 2.2 | 7.6 | NO | 1.000 | NO | bb |
| 5. | $5180818 \mathrm{M} 2 \_6$ | Standard | 5.000 | 3.95 | 4685.175 | 10899.463 | 5.373 | 5.2 | 3.9 | NO | 1.000 | NO | bd |
| $6$ | $6180818 \mathrm{M} 2 \_7$ | Standard | 10.000 | 3.95 | 7500.816 | 9096.012 | 10.308 | 10.1 | 1.2 | NO | 1.000 | NO | bb |
| $7$ | 7 180818M2_8 | Standard | 50.000 | 3.95 | 34399.855 | 9674.704 | 44.446 | 48.7 | -2.6 | NO | 1.000 | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 100.000 | 3.95 | 70522.367 | 11319.962 | 77.874 | 100.9 | 0.9 | NO | 1.000 | NO | bb |
| $9$ | 9 180818M2_10 | Standard | 250.000 | 3.95 | 148154.594 | 13611.778 | 136.054 |  |  | NO | 1.000 | NO | bbXI |
| 10. | 10 180818M2_11 | Standard | 500.000 | 3.95 | 243781.281 | 16687.102 | 182.612 |  |  | NO | 1.000 | NO | bdXI |

## Dataset:

F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered:
Sunday, August 19, 2018 12:26:56 Pacific Daylight Time
Printed: Sunday, August 19, 2018 12:28:22 Pacific Daylight Time

## Compound name: L-PFOA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999468$
Calibration curve: $-8.79959 \mathrm{e}-006$ * $x^{\wedge} 2+1.00823 * x+0.0337205$
Response type: Internal Std (Ref 44 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  |  |  |  |  | Area | IS Area | Response | $\% \mathrm{Dev}$ Conc Fla |  |  | CoD CoDFlag $x=$ excluded |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% | 1 180818M2_2 | Standard | 0.250 | 4.00 | 1384.479 | 55137.438 | 0.314 | 0.3 | 11.1 | NO | 0.999 | NO | bb |
| $2{ }^{2}$ | 2 180818M2_3 | Standard | 0.500 | 4.01 | 2735.611 | 65210.105 | 0.524 | 0.5 | -2.7 | NO | 0.999 | NO | bb |
| 3 | 3 180818M2_4 | Standard | 1.000 | 4.01 | 5236.560 | 61690.871 | 1.061 | 1.0 | 1.9 | NO | 0.999 | NO | $b b$ |
| 4 | 4 180818M2 5 | Standard | 2.000 | 4.01 | 10376.735 | 61767.570 | 2.100 | 2.0 | 2.5 | NO | 0.999 | NO | bb |
| 5. | 5 180818M2_6 | Standard | 5.000 | 4.01 | 24557.604 | 64177.371 | 4.783 | 4.7 | -5.8 | NO | 0.999 | NO | bb |
| 6 | 6 180818M2_7 | Standard | 10.000 | 4.01 | 40836.488 | 52006.926 | 9.815 | 9.7 | -3.0 | NO | 0.999 | NO | bb |
| 7 | 7 180818M2_8 | Standard | 50.000 | 4.01 | 202313.125 | 52737.410 | 47.953 | 47.5 | -4.9 | NO | 0.999 | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 100.000 | 4.01 | 429793.688 | 54281.266 | 98.974 | 98.2 | -1.8 | NO | 0.999 | NO | bb |
| 9 | 9 180818M2_10 | Standard | 250.000 | 4.01 | 913373.500 | 43936.016 | 259.859 | 258.3 | 3.3 | NO | 0.999 | NO | bb |
| 10. | 10 180818M2_11 | Standard | 500.000 | 4.01 | 1497387.750 | 37554.445 | 498.406 | 496.5 | -0.7 | NO | 0.999 | NO | bb |

## Compound name: PFHpS

Coefficient of Determination: $R^{\wedge} 2=0.999677$
Calibration curve: $6.52795 \mathrm{e}-005^{*} x^{\wedge} 2+0.854196 * x+-0.0385694$
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 | TECOD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 180818M2_2 | Standard | 0.250 | 4.12 | 124.049 | 8633.845 | 0.180 | 0.3 | 2.2 | NO | 1.000 | NO | bb |
| 2 | $2180818 \mathrm{M} 2 \_3$ | Standard | 0.500 | 4.12 | 317.887 | 10369.880 | 0.383 | 0.5 | -1.3 | NO | 1.000 | NO | bd |
| 3 | 3 180818M2_4 | Standard | 1.000 | 4.13 | 657.739 | 9934.047 | 0.828 | 1.0 | 1.4 | NO | 1.000 | NO | bb |
| 4 | 4 180818M2_5 | Standard | 2.000 | 4.13 | 1444.079 | 10066.318 | 1.793 | 2.1 | 7.2 | NO | 1.000 | NO | bb |
| 5. | 5 180818M2_6 | Standard | 5.000 | 4.13 | 3351.316 | 10378.202 | 4.036 | 4.8 | -4.6 | NO | 1.000 | NO | bb |
| 6. | 6 180818M2_7 | Standard | 10.000 | 4.13 | 5627.268 | 8346.830 | 8.427 | 9.9 | -1.0 | NO | 1.000 | NO | bb |
| 7 | 7 180818M2_8 | Standard | 50.000 | 4.13 | 27179.934 | 8381.159 | 40.537 | 47.3 | -5.3 | NO | 1.000 | NO | bb |
| 8 | 8 180818M2_9 | Standard | 100.000 | 4.13 | 57403.723 | 8365.459 | 85.775 | 99.7 | -0.3 | NO | 1.000 | NO | bb |
| 9 | 9 180818M2_10 | Standard | 250.000 | 4.13 | 117787.461 | 6619.503 | 222.425 | 255.4 | 2.2 | NO | 1.000 | NO | bb |
| 10 \% | 10 180818M2_11 | Standard | 500.000 | 4.13 | 192319.672 | 5448.193 | 441.246 | 497.7 | -0.5 | NO | 1.000 | NO | bb |

## Compound name: PFNA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998633$
Calibration curve: $1.80742 \mathrm{e}-005^{*} x^{\wedge} 2+1.18056{ }^{*} x+-0.0313309$
Response type: Internal Std (Ref 45 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFOSA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999077$
Calibration curve: $0.000189127^{*} x^{\wedge} 2+1.03389$ * $x+-0.0115339$
Response type: Internal Std (Ref 46 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Sta. Conc | RT | Area | 15 Area | Response | Conc: | \%Dev | Conc Fla | CoL | CoD Fla | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 0.250 | 4.51 | 258.119 | 10995.329 | 0.293 | 0.3 | 18.0 | NO | 0.999 | NO | bb |
| 2 | 2 180818M2_3 | Standard | 0.500 | 4.51 | 508.276 | 12783.603 | 0.497 | 0.5 | -1.6 | NO | 0.999 | NO | bb |
| 3 | 3 180818M2_4 | Standard | 1.000 | 4.51 | 1021.575 | 13021.618 | 0.981 | 1.0 | -4.1 | NO | 0.999 | NO | bb |
| 4. | 4 180818M2_5 | Standard | 2.000 | 4.52 | 2132.589 | 12909.742 | 2.065 | 2.0 | 0.4 | NO | 0.999 | NO | bb |
|  | 5 180818M2_6 | Standard | 5.000 | 4.51 | 5332.720 | 13243.235 | 5.033 | 4.9 | -2.5 | NO | 0.999 | NO | MM |
| 6 | 6 180818M2_7 | Standard | 10.000 | 4.51 | 8502.894 | 10939.443 | 9.716 | 9.4 | -6.1 | NO | 0.999 | NO | bb |
| $17$ | 7 180818M2_8 | Standard | 50.000 | 4.51 | 42648.820 | 10537.659 | 50.591 | 48.5 | -3.0 | NO | 0.999 | NO | bb |
| 8 8 | 8 180818M2_9 | Standard | 100.000 | 4.51 | 91395.930 | 11397.892 | 100.233 | 95.3 | -4.7 | NO | 0.999 | NO | bb |
| $9$ | 9 180818M2_10 | Standard | 250.000 | 4.51 | 205798.859 | 9101.704 | 282.638 | 260.9 | 4.4 | NO | 0.999 | NO | bb |
| 10.3 | 10 180818M2_11 | Standard | 500.000 | 4.51 | 350301.625 | 7830.218 | 559.214 | 495.9 | -0.8 | NO | 0.999 | NO | bb |

Last Altered: $\quad$ Sunday, August 19, 2018 12:26:56 Pacific Daylight Time
Printed: Sunday, August 19, 2018 12:28:22 Pacific Daylight Time

## Compound name: L-PFOS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999247$
Calibration curve: $0.000319688^{*} x^{\wedge} 2+0.920147^{*} x+-0.0246865$
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | d. Conc | RT | Area | IS Area | Response | Conc | \%Dev | Conc. Flag | CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 180818M2_2 | Standard | 0.250 | 4.54 | 148.640 | 8633.845 | 0.215 | 0.3 | 4.3 | NO | 0.999 | NO | MM |
| 2 | 2 180818M2_3 | Standard | 0.500 | 4.54 | 364.570 | 10369.880 | 0.439 | 0.5 | 0.9 | NO | 0.999 | NO | MM |
| 3 3. | $3180818 \mathrm{M} 2 \_4$ | Standard | 1.000 | 4.55 | 697.430 | 9934.047 | 0.878 | 1.0 | -2.0 | NO | 0.999 | NO | MM |
| 4 | 4 180818M2_5 | Standard | 2.000 | 4.55 | 1445.762 | 10066.318 | 1.795 | 2.0 | -1.2 | NO | 0.999 | NO | MM |
| 5 | 5 180818M2_6 | Standard | 5.000 | 4.55 | 3618.635 | 10378.202 | 4.358 | 4.8 | -4.9 | NO | 0.999 | NO | MM |
| $6$ | $6180818 \mathrm{M} 2 \_7$ | Standard | 10.000 | 4.55 | 5915.105 | 8346.830 | 8.858 | 9.6 | -3.8 | NO | 0.999 | NO | MM |
| $7$ | 7 180818M2_8 | Standard | 50.000 | 4.55 | 30452.424 | 8381.159 | 45.418 | 48.6 | -2.9 | NO | 0.999 | NO | MM |
| $8$ | 8 180818M2_9 | Standard | 100.000 | 4.55 | 60799.625 | 8365.459 | 90.849 | 95.6 | -4.4 | NO | 0.999 | NO | MM |
| $9$ | 9 180818M2_10 | Standard | 250.000 | 4.55 | 137989.094 | 6619.503 | 260.573 | 259.8 | 3.9 | NO | 0.999 | NO | MM |
| 10 \% | 10 180818M2_11 | Standard | 500.000 | 4.55 | 233485.031 | 5448.193 | 535.694 | 496.5 | -0.7 | NO | 0.999 | NO | MM |

## Compound name: PFDA

Coefficient of Determination: $R^{\wedge} 2=0.999189$
Calibration curve: $3.65304 \mathrm{e}-005{ }^{*} x^{\wedge} 2+1.24693 * x+-0.0114924$
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset:

F:IProjects\PFAS.PROIResults\180818M21180818M2-CRV.qld
Last Altered:
Sunday, August 19, 2018 12:26:56 Pacific Daylight Time
Printed: Sunday, August 19, 2018 12:28:22 Pacific Daylight Time

## Compound name: 8:2 FTS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999620$
Calibration curve: $-0.00373101^{*} x^{\wedge} 2+1.30929 * x+-0.00481343$
Response type: Internal Std (Ref 49 ), 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. Fla | Cob | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4. | 1 180818M2. 2 | Standard | 0.250 | 4.81 | 195.921 | 7778.789 | 0.315 | 0.2 | -2.3 | NO | 1.000 | NO | bb |
| 2 | 2 180818M2_3 | Standard | 0.500 | 4.81 | 412.965 | 8695.693 | 0.594 | 0.5 | -8.5 | NO | 1.000 | NO | bb |
| 3 | 3 180818M2_4 | Standard | 1.000 | 4.81 | 939.390 | 8813.728 | 1.332 | 1.0 | 2.4 | NO | 1.000 | NO | bb |
| 4 | 4 180818M2_5 | Standard | 2.000 | 4.81 | 1905.598 | 8295.932 | 2.871 | 2.2 | 10.5 | NO | 1.000 | NO | bb |
| $5$ | 5 180818M2_6 | Standard | 5.000 | 4.81 | 4534.209 | 8706.074 | 6.510 | 5.0 | 1.0 | NO | 1.000 | NO | bb |
| $6$ | 6 180818M2_7 | Standard | 10.000 | 4.81 | 7491.750 | 7622.302 | 12.286 | 9.7 | -3.5 | NO | 1.000 | NO | bb |
| 7 | 7 180818M2_8 | Standard | 50.000 | 4.81 | 36086.043 | 8009.803 | 56.315 | 50.2 | 0.4 | NO | 1.000 | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 100.000 | 4.81 | 71413.336 | 9541.461 | 93.557 | 99.9 | -0.1 | NO | 1.000 | NO | bb |
| 9 | 9 180818M2_10 | Standard | 250.000 | 4.81 | 145419.688 | 11108.309 | 163.638 |  |  | NO | 1.000 | NO | bbXI |
| 10. | $10180818 \mathrm{M} 2 \_11$ | Standard | 500.000 | 4.81 | 239532.609 | 14178.939 | 211.169 |  |  | NO | 1.000 | NO | MMXI |

## Compound name: PFNS

## Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999247$

Calibration curve: $-1.97777 \mathrm{e}-006$ * $x^{\wedge} 2+0.822519$ * $x+-0.00791944$
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| T. | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc | \%Dev | Conc. Flag | CoD | CoD F | xcluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 0.250 | 4.90 | 163.978 | 8633.845 | 0.237 | 0.3 | 19.3 | NO | 0.999 | NO | bb |
| 2. | 2 180818M2_3 | Standard | 0.500 | 4.91 | 287.916 | 10369.880 | 0.347 | 0.4 | -13.7 | NO | 0.999 | NO | bb |
| 3 | 3 180818M2_4 | Standard | 1.000 | 4.91 | 649.622 | 9934.047 | 0.817 | 1.0 | 0.3 | NO | 0.999 | NO | bb |
| 4.tul | 4 180818M2_5 | Standard | 2.000 | 4.91 | 1367.136 | 10066.318 | 1.698 | 2.1 | 3.7 | NO | 0.999 | NO | bb |
| 5 | 5 180818M2_6 | Standard | 5.000 | 4.91 | 3359.878 | 10378.202 | 4.047 | 4.9 | -1.4 | NO | 0.999 | NO | bb |
| 6 | 6180818 M 2 _7 | Standard | 10.000 | 4.91 | 5273.820 | 8346.830 | 7.898 | 9.6 | -3.9 | NO | 0.999 | NO | bb |
| 7,5\% | 7 180818M2_8 | Standard | 50.000 | 4.91 | 26455.525 | 8381.159 | 39.457 | 48.0 | -4.0 | NO | 0.999 | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 100.000 | 4.92 | 53084.125 | 8365.459 | 79.320 | 96.5 | -3.5 | NO | 0.999 | NO | bb |
| $9$ | 9 180818M2_10 | Standard | 250.000 | 4.92 | 113205.461 | 6619.503 | 213.773 | 260.1 | 4.0 | NO | 0.999 | NO | bb |
| 10. | 10 180818M2_11 | Standard | 500.000 | 4.91 | 177555.875 | 5448.193 | 407.373 | 495.9 | -0.8 | NO | 0.999 | NO | bb |

Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 12:26:56 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 12:28:22 Pacific Daylight Time

## Compound name: L-MeFOSAA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999629$
Calibration curve: $7.43899 \mathrm{e}-005^{*} x^{\wedge} 2+1.21424$ * $x+-0.0674876$
Response type: Internal Std (Ref 50 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

| -3 ${ }^{2}$ | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 180818M2_2 | Standard | 0.250 | 5.00 | 267.553 | 16529.104 | 0.202 | 0.2 | -11.1 | NO | 1.000 | NO | MM |
| 2 | 2 180818M2_3 | Standard | 0.500 | 4.99 | 670.015 | 18098.533 | 0.463 | 0.4 | -12.7 | NO | 1.000 | NO | MM |
| 3 | 3 180818M2_4 | Standard | 1.000 | 5.00 | 1643.462 | 17750.582 | 1.157 | 1.0 | 0.9 | NO | 1.000 | NO | MM |
| 4 | 4 180818M2_5 | Standard | 2.000 | 5.00 | 3156.333 | 16554.553 | 2.383 | 2.0 | 0.9 | NO | 1.000 | NO | MM |
| 5 | 5 180818M2_6 | Standard | 5.000 | 5.00 | 8542.593 | 17478.945 | 6.109 | 5.1 | 1.7 | NO | 1.000 | NO | MM |
| 6 | 6 180818M2_7 | Standard | 10.000 | 5.00 | 14312.285 | 15061.185 | 11.878 | 9.8 | -1.7 | NO | 1.000 | NO | MM |
| 7 7. | 7 180818M2_8 | Standard | 50.000 | 5.00 | 71302.648 | 14306.636 | 62.299 | 51.2 | 2.4 | NO | 1.000 | No | MM |
| 8 | 8 180818M2_9 | Standard | 100.000 | 5.00 | 142653.047 | 15261.081 | 116.844 | 95.7 | -4.3 | NO | 1.000 | NO | MM |
| 9 | 9180818 M 2 _10 | Standard | 250.000 | 5.00 | 319980.250 | 12727.530 | 314.260 | 254.9 | 2.0 | No | 1.000 | NO | MM |
| 10 | 10 180818M2_11 | Standard | 500.000 | 5.00 | 543670.375 | 10899.607 | 623.498 | 498.3 | -0.3 | NO | 1.000 | NO | MM |

## Compound name: L-EtFOSAA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999446$
Calibration curve: $5.42069 \mathrm{e}-005^{*} \mathrm{x}^{\wedge} 2+0.942918$ * $\mathrm{x}+-0.0792023$
Response type: Internal Std (Ref 52 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Method: F:IProjects\PFAS.PRO\MethDBIPFAS_FULL_80C_081818.mdb 18 Aug 2018 13:22:04
Calibration: F:IProjects 1 PFAS.PROICurveDBIC18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

## Compound name: PFUdA

Coefficient of Determination: $R^{\wedge} 2=0.999065$
Calibration curve: $-4.78243 \mathrm{e}-005^{*} x^{\wedge} 2+0.960284^{*} x+0.0221714$
Response type: Internal Std (Ref 51 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | 15 Area | Response | Conc. | \%Dev | Conc. Flag | CoD | Codiflag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1{ }^{13}$ | 1 180818M2_2 | Standard | 0.250 | 5.18 | 1460.390 | 66091.742 | 0.276 | 0.3 | 5.8 | NO | 0.999 | NO | MM |
| 2 | 2 180818M2_3 | Standard | 0.500 | 5.18 | 3001.582 | 74524.586 | 0.503 | 0.5 | 0.2 | NO | 0.999 | NO | bb |
| 3. | 3 180818M2_4 | Standard | 1.000 | 5.18 | 6192.402 | 78484.578 | 0.986 | 1.0 | 0.4 | NO | 0.999 | NO | MM |
| 4 | 4 180818M2_5 | Standard | 2.000 | 5.18 | 11417.934 | 70985.984 | 2.011 | 2.1 | 3.5 | NO | 0.999 | NO | bb |
| 5 | 5 180818M2_6 | Standard | 5.000 | 5.17 | 28671.596 | 73522.391 | 4.875 | 5.1 | 1.1 | NO | 0.999 | NO | bb |
| $6$ | 6180818 M 2 _7 | Standard | 10.000 | 5.18 | 45061.969 | 63111.082 | 8.925 | 9.3 | -7.2 | NO | 0.999 | NO | bb |
| 7. | 7 180818M2_8 | Standard | 50.000 | 5.18 | 220125.109 | 59074.332 | 46.578 | 48.6 | -2.8 | NO | 0.999 | NO | bb |
| 8 | 8 180818M2_9 | Standard | 100.000 | 5.18 | 442740.906 | 60681.059 | 91.202 | 95.4 | -4.6 | NO | 0.999 | NO | bb |
| 9 | 9 180818M2_10 | Standard | 250.000 | 5.18 | 972187.063 | 49082.266 | 247.591 | 261.2 | 4.5 | NO | 0.999 | NO | bb |
| 10 \% | 10 180818M2_11 | Standard | 500.000 | 5.18 | 1490154.250 | 40145.508 | 463.985 | 495.4 | -0.9 | NO | 0.999 | NO | MM |

## Compound name: PFDS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999417$
Calibration curve: $4.4146 e-005{ }^{*} x^{\wedge} 2+0.922936$ * $x+-0.032404$
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 | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 0.250 | 5.23 | 159.146 | 8633.845 | 0.230 | 0.3 | 13.9 | NO | 0.999 | NO | bb |
| 2 | $2180818 \mathrm{M} 2 \_3$ | Standard | 0.500 | 5.23 | 317.179 | 10369.880 | 0.382 | 0.4 | -10.1 | NO | 0.999 | NO | bb |
| $3$ | 3 180818M2_4 | Standard | 1.000 | 5.23 | 708.136 | 9934.047 | 0.891 | 1.0 | 0.1 | NO | 0.999 | NO | MM |
| $4$ | 4 180818M2_5 | Standard | 2.000 | 5.23 | 1490.051 | 10066.318 | 1.850 | 2.0 | 2.0 | NO | 0.999 | NO | bb |
| 5 | 5 180818M2_6 | Standard | 5.000 | 5.23 | 3810.323 | 10378.202 | 4.589 | 5.0 | 0.1 | NO | 0.999 | NO | bb |
| $6$ | 6180818 M 2 _7 | Standard | 10.000 | 5.23 | 6087.710 | 8346.830 | 9.117 | 9.9 | -0.9 | NO | 0.999 | NO | bb |
| $7$ | 7 180818M2_8 | Standard | 50.000 | 5.23 | 29293.486 | 8381.159 | 43.689 | 47.3 | -5.5 | NO | 0.999 | NO | bb |
| 8. | 8 180818M2_9 | Standard | 100.000 | 5.23 | 60621.570 | 8365.459 | 90.583 | 97.7 | -2.3 | NO | 0.999 | NO | bb |
| 9 ? | $9180818 \mathrm{M} 2 \ldots 10$ | Standard | 250.000 | 5.23 | 127901.945 | 6619.503 | 241.525 | 258.5 | 3.4 | NO | 0.999 | NO | bb |

## Compound name: PFDS



## Compound name: PFDoA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999456$
Calibration curve: $-7.09846 e-005 * x^{\wedge} 2+1.10919 * x+-0.00452959$
Response type: Internal Std (Ref 53 ), 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 | Cob | CoD Flag | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 0.250 | 5.47 | 1686.908 | 70010.047 | 0.301 | 0.3 | 10.3 | NO | 0.999 | NO | MM |
| 2 | 2 180818M2_3 | Standard | 0.500 | 5.47 | 3331.655 | 77373.563 | 0.538 | 0.5 | -2.1 | NO | 0.999 | NO | bb |
| 3 | 3 180818M2_4 | Standard | 1.000 | 5.47 | 6842.675 | 76983.148 | 1.111 | 1.0 | 0.6 | NO | 0.999 | NO | bb |
| 4. | 4 180818M2_5 | Standard | 2.000 | 5.47 | 13256.827 | 73777.406 | 2.246 | 2.0 | 1.5 | NO | 0.999 | NO | bb |
| $5$ | 5 180818M2_6 | Standard | 5.000 | 5.47 | 33560.453 | 76534.656 | 5.481 | 4.9 | -1.1 | NO | 0.999 | NO | bb |
| $6$ | 6 180818M2_7 | Standard | 10.000 | 5.47 | 53697.969 | 65452.387 | 10.255 | 9.3 | -7.4 | NO | 0.999 | NO | bb |
| $7$ | 7 180818M2_8 | Standard | 50.000 | 5.47 | 257042.313 | 58383.484 | 55.033 | 49.8 | -0.4 | NO | 0.999 | NO | bb |
| 8. | 8 180818M2_9 | Standard | 100.000 | 5.47 | 505326.500 | 59575.656 | 106.026 | 96.2 | -3.8 | NO | 0.999 | NO | bb |
| 9 | 9 180818M2_10 | Standard | 250.000 | 5.47 | 1085230.375 | 48172.324 | 281.601 | 258.1 | 3.3 | NO | 0.999 | NO | bb |
| $10: \%$ | 10 180818M2_11 | Standard | 500.000 | 5.47 | 1774482.125 | 41588.434 | 533.346 | 496.6 | -0.7 | NO | 0.999 | NO | bb |

## Compound name: N-MeFOSA

Coefficient of Determination: $R^{\wedge} 2=0.999843$
Calibration curve: $-6.96714 \mathrm{e}-005{ }^{*} x^{\wedge} 2+0.956469 * x+0.187477$
Response type: Internal Std (Ref 54 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | esponse | Conc. | Dev |  | COD | I | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 180818M2_2 | Standard | 1.250 | 5.60 | 432.164 | 44773.813 | 1.448 | 1.3 | 5.4 | NO | 1.000 | NO | bb |
| 2 | 2 180818M2_3 | Standard | 2.500 | 5.60 | 895.890 | 51491.996 | 2.610 | 2.5 | 1.3 | NO | 1.000 | NO | bb |
| 3 | 3 180818M2_4 | Standard | 5.000 | 5.60 | 1708.047 | 51600.301 | 4.965 | 5.0 | -0.1 | NO | 1.000 | NO | bb |
| $4$ | 4 180818M2_5 | Standard | 10.000 | 5.60 | 3359.082 | 50768.145 | 9.925 | 10.2 | 1.9 | NO | 1.000 | NO | bb |
| $5$ | 5 180818M2_6 | Standard | 25.000 | 5.60 | 8922.490 | 52514.934 | 25.486 | 26.5 | 6.0 | NO | 1.000 | NO | bb |
| $6$ | 6 180818M2_7 | Standard | 50.000 | 5.60 | 14235.632 | 43841.633 | 48.706 | 50.9 | 1.8 | NO | 1.000 | NO | bb |
| 7. | 7 180818M2_8 | Standard | 250.000 | 5.60 | 72740.102 | 45911.469 | 237.653 | 252.9 | 1.2 | NO | 1.000 | NO | bb |

## Compound name: N-MeFOSA



## Compound name: PFTrDA

Coefficient of Determination: $R^{\wedge} 2=0.999328$
Calibration curve: $3.73082 \mathrm{e}-005$ * ${ }^{\wedge} 2+1.15239$ * $x+-0.0207788$
Response type: Internal Std ( Ref 53 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: $1 / \mathrm{x}$, Axis trans: None

|  | 3. ${ }^{\text {a }}$ | \# Name | \$ Type | 5it: Std.Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \% ${ }^{4}$ | 1 180818M2_2 | Standard | 0.250 | 5.73 | 1601.522 | 70010.047 | 0.286 | 0.3 | 6.5 | NO | 0.999 | NO | bb |
| 2 |  | 2 180818M2_3 | Standard | 0.500 | 5.73 | 3361.040 | 77373.563 | 0.543 | 0.5 | -2.2 | NO | 0.999 | NO | bb |
| 3 |  | 3 180818M2_4 | Standard | 1.000 | 5.73 | 7425.577 | 76983.148 | 1.206 | 1.1 | 6.4 | NO | 0.999 | NO | db |
| 4 |  | 4 180818M2_5 | Standard | 2.000 | 5.73 | 13715.206 | 73777.406 | 2.324 | 2.0 | 1.7 | NO | 0.999 | NO | bb |
| 5 |  | 5 180818M2_6 | Standard | 5.000 | 5.73 | 35123.156 | 76534.656 | 5.736 | 5.0 | -0.1 | NO | 0.999 | NO | bb |
| 6 |  | 6 180818M2_7 | Standard | 10.000 | 5.73 | 53685.059 | 65452.387 | 10.253 | 8.9 | -10.9 | NO | 0.999 | NO | bb |
| 7 |  | 7 180818M2_8 | Standard | 50.000 | 5.73 | 269264.844 | 58383.484 | 57.650 | 50.0 | -0.1 | NO | 0.999 | NO | bb |
|  |  | 8 180818M2_9 | Standard | 100.000 | 5.73 | 528023.688 | 59575.656 | 110.788 | 95.9 | -4.1 | NO | 0.999 | NO | bb |
| 9 |  | 9 180818M2_10 | - Standard | 250.000 | 5.73 | 1157680.875 | 48172.324 | 300.401 | 258.5 | 3.4 | NO | 0.999 | NO | bb |
| 10 | 154 | $10180818 \mathrm{M} 2 \_11$ | 1 Standard | 500.000 | 5.73 | 1934685.125 | 41588.434 | 581.497 | 496.6 | -0.7 | NO | 0.999 | NO | bb |

## Compound name: PFTeDA

Coefficient of Determination: $R^{\wedge} 2=0.996826$
Calibration curve: -0.000215569 * $x^{\wedge} 2+1.2779$ * $x+-0.0148886$
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 12:26:56 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 12:28:30 Pacific Daylight Time |

## Compound name: PFTeDA

|  | \# Name | Type | Std Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc Flag | CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 6 180818M2_7 | Standard | 10.000 | 5.95 | 47165.668 | 48188.223 | 12.235 | 9.6 | -4.0 | NO | 0.997 | NO | bb |
| 7 | 7 180818M2_8 | Standard | 50.000 | 5.95 | 226104.250 | 48413.898 | 58.378 | 46.1 | -7.9 | NO | 0.997 | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 100.000 | 5.95 | 450190.969 | 48423.512 | 116.212 | 92.4 | -7.6 | NO | 0.997 | NO | bb |
| 9 | 9 180818M2_10 | Standard | 250.000 | 5.95 | 1009180.938 | 38090.109 | 331.182 | 271.6 | 8.6 | NO | 0.997 | NO | bb |
| 10 \% | 10 180818M2_11 | Standard | 500.000 | 5.95 | 1651667.375 | 35915.945 | 574.838 | 490.4 | -1.9 | NO | 0.997 | NO | bb |

## Compound name: N-EtFOSA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999793$
Calibration curve: -4.67046e-005 * $x^{\wedge} 2+0.9220377^{*} x+0.0631164$
Response type: Internal Std (Ref 56 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name . ${ }^{\text {a }}$, | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 180818M2_2 | Standard | 1.250 | 6.06 | 464.404 | 58448.145 | 1.192 | 1.2 | -2.1 | NO | 1.000 | NO | MM |
| 2 | 2 180818M2_3 | Standard | 2.500 | 6.06 | 989.070 | 64586.906 | 2.297 | 2.4 | -3.1 | NO | 1.000 | NO | bb |
| 3 | 3 180818M2_4 | Standard | 5.000 | 6.06 | 2195.490 | 66674.164 | 4.939 | 5.3 | 5.8 | NO | 1.000 | NO | bb |
| 4 | 4 180818M2_5 | Standard | 10.000 | 6.06 | 4042.972 | 64937.117 | 9.339 | 10.1 | 0.7 | NO | 1.000 | NO | MM |
| 5 | 5 180818M2_6 | Standard | 25.000 | 6.06 | 10391.835 | 67264.133 | 23.174 | 25.1 | 0.4 | NO | 1.000 | NO | bb |
| $6$ | 6180818 M 2 _7 | Standard | 50.000 | 6.06 | 17178.572 | 55709.906 | 46.254 | 50.2 | 0.4 | NO | 1.000 | NO | bb |
| $7$ | 7 180818M2_8 | Standard | 250.000 | 6.06 | 85742.945 | 57302.891 | 224.447 | 246.4 | -1.4 | NO | 1.000 | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 500.000 | 6.06 | 171677.125 | 58649.422 | 439.076 | 488.2 | -2.4 | NO | 1.000 | NO | bb |
| $9$ | 9 180818M2_10 | Standard | 1250.000 | 6.06 | 378531.125 | 51576.227 | 1100.888 | 1276.4 | 2.1 | NO | 1.000 | NO | bb |
| 10\% W\% | $10180818 \mathrm{M} 2 \_11$ | Standard | 2500.000 | 6.06 | 614917.125 | 46003.680 | 2005.004 | 2488.0 | -0.5 | NO | 1.000 | NO | bb |

## Compound name: PFHxDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999740$
Calibration curve: -0.000134784 * $x^{\wedge} 2+0.66615$ * $x+0.0546142$
Response type: Internal Std (Ref 57 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFODA

Coefficient of Determination: $R^{\wedge} 2=0.999246$
Calibration curve: $-0.000128997{ }^{*} x^{\wedge} 2+0.764394{ }^{*} x+0.0122833$
Response type: Internal Std (Ref 57 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

| \% | \# Name | Type | B/ Std Conc | RT | Area | IS Area | sponse | Conc. | \%Dev | Conc. Flag | Cob | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14.4 | 1 180818M2_2 | Standard | 0.250 | 6.57 | 1049.912 | 25528.365 | 0.206 | 0.3 | 1.2 | NO | 0.999 | NO | bb |
| 2 | 2 180818M2_3 | Standard | 0.500 | 6.57 | 2347.857 | 27699.385 | 0.424 | 0.5 | 7.7 | NO | 0.999 | NO | bb |
| 3 | 3 180818M2_4 | Standard | 1.000 | 6.57 | 4600.492 | 28805.168 | 0.799 | 1.0 | 2.9 | NO | 0.999 | NO | bb |
| 4 | 4 180818M2_5 | Standard | 2.000 | 6.57 | 8558.239 | 28361.713 | 1.509 | 2.0 | -2.1 | NO | 0.999 | NO | bb |
| 5 | $5180818 \mathrm{M} 2 \_6$ | Standard | 5.000 | 6.57 | 23484.049 | 28547.113 | 4.113 | 5.4 | 7.4 | NO | 0.999 | NO | bb |
| 6 \% | 6180818 M 2 _7 | Standard | 10.000 | 6.57 | 35950.766 | 25459.727 | 7.060 | 9.2 | -7.7 | NO | 0.999 | NO | bb |
| $7$ | 7 180818M2_8 | Standard | 50.000 | 6.57 | 178824.688 | 24005.527 | 37.247 | 49.1 | -1.8 | NO | 0.999 | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 100.000 | 6.57 | 356280.000 | 24727.877 | 72.040 | 95.8 | -4.2 | NO | 0.999 | NO | bb |
| $9$ | 9 180818M2_10 | Standard | 250.000 | 6.57 | 783873.000 | 20652.566 | 189.776 | 259.6 | 3.9 | NO | 0.999 | NO | bb |
| 10.4 | $10180818 \mathrm{M} 2 \_11$ | Standard | 500.000 | 6.57 | 1320894.125 | 19016.867 | 347.295 | 495.8 | -0.8 | NO | 0.999 | NO | bb |

## Compound name: N-MeFOSE

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999661$
Calibration curve: $5.21489 \mathrm{e}-005$ * $x^{\wedge} 2+0.937354$ * $x+0.147332$
Response type: Internal Std (Ref 58 ), 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 $\mathrm{x}=$ excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 1.250 | 6.28 | 349.166 | 35733.289 | 1.466 | 1.4 | 12.5 | NO | 1.000 | NO | bd |
| 2 | 2 180818M2_3 | Standard | 2.500 | 6.28 | 593.203 | 40950.051 | 2.173 | 2.2 | -13.6 | NO | 1.000 | NO | MM |
| 3 | 3 180818M2_4 | Standard | 5.000 | 6.28 | 1301.902 | 42570.203 | 4.587 | 4.7 | -5.3 | NO | 1.000 | NO | bb |
| 4 | 4 180818M2_5 | Standard | 10.000 | 6.29 | 2647.369 | 40184.625 | 9.882 | 10.4 | 3.8 | NO | 1.000 | NO | bb |
| 5. | 5 180818M2_6 | Standard | 25.000 | 6.28 | 6968.292 | 43143.895 | 24.227 | 25.7 | 2.6 | NO | 1.000 | NO | bb |
| 6 \% | 6 180818M2_7 | Standard | 50.000 | 6.28 | 10800.368 | 34918.051 | 46.396 | 49.2 | -1.6 | NO | 1.000 | No | bb |
| 7. | 7 180818M2_8 | Standard | 250.000 | 6.28 | 59661.703 | 36313.754 | 246.443 | 259.0 | 3.6 | NO | 1.000 | No | bb |
| 8 | 8 180818M2_9 | Standard | 500.000 | 6.29 | 126687.070 | 40383.000 | 470.571 | 488.6 | -2.3 | NO | 1.000 | NO | bb |
| 9 | 9 180818M2_10 | Standard | 1250.000 | 6.29 | 327002.656 | 39049.277 | 1256.115 | 1252.6 | 0.2 | NO | 1.000 | NO | bb |
| 10 | 10 180818M2_11 | Standard | 2500.000 | 6.29 | 634777.813 | 35719.961 | 2665.643 | 2496.8 | -0.1 | NO | 1.000 | NO | bbX |

## Compound name: N-EtFOSE

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999844$
Calibration curve: $0.000111078{ }^{*} x^{\wedge} 2+1.0899 * x+0.234412$
Response type: Internal Std (Ref 59 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type: | W3 Std Conc |  | a | IS Area | Response | Conc. PDev |  | Conc Flag | CoD | Cod Flag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1$ | 1 180818M2_2 | Standard | d 1.250 | 6.44 | 360.893 | 35642.957 | 1.519 | 1.2 | -5.7 | NO | 1.000 | NO | bb |
| 2 2, ${ }^{\text {a }}$ | 2 180818M2_3 | Standard | 2.500 | 6.44 | 740.002 | 40088.063 | 2.769 | 2.3 | -7.0 | NO | 1.000 | NO | bb |
| $3$ | 3 180818M2_4 | Standard | - 5.000 | 6.44 | 1633.138 | 41865.727 | 5.851 | 5.2 | 3.0 | NO | 1.000 | NO | bb |
| 4.4 | 4 180818M2_5 | Standard | ( 10.000 | 6.44 | 3172.614 | 41116.570 | 11.574 | 10.4 | 3.9 | NO | 1.000 | NO | bb |
| $5$ | 5 180818M2_6 | Standard | 25.000 | 6.44 | 7952.483 | 41904.371 | 28.467 | 25.8 | 3.3 | NO | 1.000 | NO | bb |
| 6. | 6180818 M 2 _7 | Standard | , 50.000 | 6.44 | 13524.389 | 36053.895 | 56.267 | 51.1 | 2.3 | NO | 1.000 | NO | MM |
| 7. | 7 180818M2_8 | Standard | 250.000 | 6.44 | 70120.906 | 36943.488 | 284.709 | 254.4 | 1.8 | NO | 1.000 | NO | bb |
| 8 | 8 180818M2_9 | Standard | 500.000 | 6.44 | 151821.750 | 40509.668 | 562.169 | 491.0 | -1.8 | NO | 1.000 | NO | bb |
| 9 | 9 180818M2_10 | Standard | 1250.000 | 6.44 | 387835.875 | 37790.797 | 1539.406 | 1252.4 | 0.2 | NO | 1.000 | NO | bb |
| $10 \times 15$ | 10 180818M2_11 | Standard | 2500.000 | 6.44 | 742202.688 | 36181.387 | 3077.008 | 2289.0 | -8.4 | NO | 1.000 | NO | bbX |

Dataset: F:\Projects\PFAS.PRO\Results\180818M2\180818M2-CRV.qid
Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: 13C3-PFBA

Response Factor: 0.822009
RRF SD: 0.0106484 , Relative SD: 1.29542
Response type: Internal Std (Ref 60 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C3-PFPeA

Response Factor: 0.485943
RRF SD: 0.0331819, Relative SD: 6.82836
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

| 4 |  | \# Name | Type | Conc | RT | Area | $S$ Area | nse | Conc. | \%Dev | Conc. Flag | $\mathrm{CoD}_{2}$ | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | 1 180818M2_2 | Standard | 12.500 | 2.04 | 31119.863 | 64932.156 | 5.991 | 12.3 | -1.4 | NO |  | NO | MM |
| 2 |  | 2 180818M2_3 | Standard | 12.500 | 2.03 | 30241.293 | 59719.254 | 6.330 | 13.0 | 4.2 | NO |  | NO | MM |
| 3 | \% | 3 180818M2_4 | Standard | 12.500 | 2.03 | 31089.707 | 70511.906 | 5.511 | 11.3 | -9.3 | NO |  | NO | MM |
| 4 |  | 4 180818M2_5 | Standard | 12.500 | 2.04 | 32188.441 | 71153.563 | 5.655 | 11.6 | -6.9 | NO |  | NO | bb |
| 5. |  | 5 180818M2_6 | Standard | 12.500 | 2.04 | 30398.725 | 60391.453 | 6.292 | 12.9 | 3.6 | NO |  | NO | MM |
| 6 | $4$ | 6 180818M2_7 | Standard | 12.500 | 2.04 | 27457.793 | 60555.043 | 5.668 | 11.7 | -6.7 | NO |  | NO | MM |
| 7 |  | 7 180818M2_8 | Standard | 12.500 | 2.04 | 27672.750 | 59694.457 | 5.795 | 11.9 | -4.6 | NO |  | NO | MM |
| 8 | (.W. | 8 180818M2_9 | Standard | 12.500 | 2.04 | 27978.475 | 52964.211 | 6.603 | 13.6 | 8.7 | NO |  | NO | MM |
| 9 | It.t. | 9 180818M2_10 | Standard | 12.500 | 2.04 | 27028.801 | 54561.313 | 6.192 | 12.7 | 1.9 | NO |  | NO | MM |
| 10 |  | $10180818 \mathrm{M} 2 \_11$ | Standard | 12.500 | 2.04 | 25174.316 | 46925.996 | 6.706 | 13.8 | 10.4 | NO |  | NO | bb |

Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: 13C3-PFBS

Response Factor: 0.050295
RRF SD: 0.00332956 , Relative SD: 6.62005
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | - Std Conc | RT | Area | IS Area | ponse | Conc | \%Dev | c. F | F | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. ${ }^{\text {ctim }}$ | 1 180818M2_2 | Standard | 12.500 | 2.33 | 3425.504 | 64932.156 | 0.659 | 13.1 | 4.9 | NO | NO | MM |
| 2 ${ }^{2}$ | 2 180818M2_3 | Standard | 12.500 | 2.33 | 3268.840 | 59719.254 | 0.684 | 13.6 | 8.8 | NO | NO | bb |
| 3 | 3 180818M2_4 | Standard | 12.500 | 2.33 | 3351.717 | 70511.906 | 0.594 | 11.8 | -5.5 | NO | NO | MM |
| $4{ }^{\text {a }}$ | 4 180818M2_5 | Standard | 12.500 | 2.34 | 3458.118 | 71153.563 | 0.608 | 12.1 | -3.4 | NO | NO | MM |
| $5:{ }^{5}$ | 5 180818M2_6 | Standard | 12.500 | 2.33 | 3280.868 | 60391.453 | 0.679 | 13.5 | 8.0 | NO | NO | MM |
| $6$ | 6 180818M2_7 | Standard | 12.500 | 2.34 | 3003.423 | 60555.043 | 0.620 | 12.3 | -1.4 | NO | NO | MM |
| $7$ | 7 180818M2_8 | Standard | 12.500 | 2.34 | 2824.817 | 59694.457 | 0.592 | 11.8 | -5.9 | NO | NO | MM |
| 8 | 8 180818M2_9 | Standard | 12.500 | 2.33 | 2820.908 | 52964.211 | 0.666 | 13.2 | 5.9 | NO | NO | bb |
| 9 | 9 180818M2_10 | Standard | 12.500 | 2.34 | 2450.505 | 54561.313 | 0.561 | 11.2 | -10.7 | NO | NO | MM |
| 10: | $10180818 \mathrm{M} 2 \_11$ | Standard | 12.500 | 2.34 | 2341.784 | 46925.996 | 0.624 | 12.4 | -0.8 | NO | NO | MM |

## Compound name: 13C2-4:2 FTS

Response Factor: 0.147599
RRF SD: 0.0129653, Relative SD: 8.78412
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area )
Curve type: RF


Dataset:
F:\Projects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: 13C2-PFHxA

## Response Factor: 0.974477

RRF SD: 0.0302163, Relative SD: 3.10078
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 180818M2_2 | Standard | 5.000 | 2.85 | 24885.418 | 64932.156 | 4.791 | 4.9 | -1.7 | NO | NO | bb |
| 2. | 2 180818M2_3 | Standard | 5.000 | 2.85 | 23492.553 | 59719.254 | 4.917 | 5.0 | 0.9 | NO | NO | bb |
| 3. | 3 180818M2_4 | Standard | 5.000 | 2.85 | 26398.832 | 70511.906 | 4.680 | 4.8 | -4.0 | NO | NO | MM |
| 4 | 4 180818M2_5 | Standard | 5.000 | 2.85 | 27189.494 | 71153.563 | 4.777 | 4.9 | -2.0 | NO | NO | bb |
| 5 | $5180818 \mathrm{M} 2 \_6$ | Standard | 5.000 | 2.85 | 23211.816 | 60391.453 | 4.804 | 4.9 | -1.4 | NO | NO | bb |
| 6 | 6180818 M 2 _7 | Standard | 5.000 | 2.85 | 22833.115 | 60555.043 | 4.713 | 4.8 | -3.3 | NO | NO | bb |
|  | 7 180818M2_8 | Standard | 5.000 | 2.85 | 23433.619 | 59694.457 | 4.907 | 5.0 | 0.7 | NO | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 5.000 | 2.85 | 20898.920 | 52964.211 | 4.932 | 5.1 | 1.2 | NO | NO | bb |
| $9$ | 9 180818M2_10 | Standard | 5.000 | 2.85 | 21941.959 | 54561.313 | 5.027 | 5.2 | 3.2 | NO | NO | bb |
| 10. ${ }^{\text {a }}$ | 10 180818M2_11 | Standard | 5.000 | 2.85 | 19429.326 | 46925.996 | 5.176 | 5.3 | 6.2 | NO | NO | bb |

## Compound name: 13C4-PFHpA

Response Factor: 0.612086
RRF SD: 0.0749102, Relative SD: 12.2385
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name ${ }^{\text {a }}$ | Type | Std. Cone | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | COD CoD flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 12.500 | 3.47 | 38171.957 | 64932.156 | 7.348 | 12.0 | -4.0 | NO | NO | bb |
| 2 | 2 180818M2_3 | Standard | 12.500 | 3.47 | 43881.137 | 59719.254 | 9.185 | 15.0 | 20.0 | NO | NO | MM |
| 3. | 3 180818M2_4 | Standard | 12.500 | 3.47 | 42102.074 | 70511.906 | 7.464 | 12.2 | -2.4 | NO | NO | bb |
| 4 | 4 180818M2_5 | Standard | 12.500 | 3.47 | 41441.453 | 71153.563 | 7.280 | 11.9 | -4.8 | NO | NO | bb |
| 5 | 5 180818M2_6 | Standard | 12.500 | 3.47 | 42992.613 | 60391.453 | 8.899 | 14.5 | 16.3 | NO | NO | bb |
| 6 | 6180818 M 2 _7 | Standard | 12.500 | 3.47 | 34422.707 | 60555.043 | 7.106 | 11.6 | -7.1 | NO | NO | bb |
| 7 | 7 180818M2_8 | Standard | 12.500 | 3.47 | 35637.738 | 59694.457 | 7.463 | 12.2 | -2.5 | NO | NO | bb |
| 8 | 8 180818M2_9 | Standard | 12.500 | 3.47 | 36613.141 | 52964.211 | 8.641 | 14.1 | 12.9 | NO | NO | bb |
|  | 9 180818M2_10 | Standard | 12.500 | 3.47 | 29231.311 | 54561.313 | 6.697 | 10.9 | -12.5 | NO | NO | bb |
| 10: ${ }^{\text {a }}$ | 10 180818M2_11 | Standard | 12.500 | 3.47 | 24133.641 | 46925.996 | 6.429 | 10.5 | -16.0 | NO | NO | MM |

## Dataset:

F:\Projects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: 1802-PFHxS

Response Factor: 0.483279
RRF SD: 0.0179324 , Relative SD: 3.71057
Response type: Internal Std (Ref 62 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C2-6:2 FTS

## Response Factor: 0.142828

RRF SD: 0.0132182, Relative SD: 9.2546
Response type: Internal Std (Ref 63 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Dataset:

 F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qldLast Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: 13C2-PFOA

Response Factor: 0.820783
RRF SD: 0.0141454 , Relative SD: 1.72341
Response type: Internal Std (Ref 63 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag: | CoD CoDFlag | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 12.500 | 4.00 | 55137.438 | 68346.336 | 10.084 | 12.3 | -1.7 | NO | NO | bb |
| 2: \% \% | 2 180818M2_3 | Standard | 12.500 | 4.01 | 65210.105 | 78179.555 | 10.426 | 12.7 | 1.6 | NO | NO | bb |
| 3. | 3 180818M2_4 | Standard | 12.500 | 4.01 | 61690.871 | 77180.250 | 9.991 | 12.2 | -2.6 | NO | NO | bb |
| 4 | 4 180818M2_5 | Standard | 12.500 | 4.01 | 61767.570 | 75186.430 | 10.269 | 12.5 | 0.1 | NO | NO | bb |
| 5 | $5180818 \mathrm{M} 2 \ldots 6$ | Standard | 12.500 | 4.01 | 64177.371 | 77046.625 | 10.412 | 12.7 | 1.5 | NO | NO | bb |
| 6 | 6 180818M2_7 | Standard | 12.500 | 4.01 | 52006.926 | 63815.621 | 10.187 | 12.4 | -0.7 | NO | NO | bb |
| 7 | 7 180818M2_8 | Standard | 12.500 | 4.01 | 52737.410 | 65389.000 | 10.081 | 12.3 | -1.7 | NO | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 12.500 | 4.01 | 54281.266 | 65768.984 | 10.317 | 12.6 | 0.6 | NO | NO | bb |
| $9$ | 9 180818M2_10 | Standard | 12.500 | 4.01 | 43936.016 | 53449.152 | 10.275 | 12.5 | 0.2 | NO | NO | bb |
| 10.1 \% | 10 180818M2_11 | Standard | 12.500 | 4.01 | 37554.445 | 44476.480 | 10.555 | 12.9 | 2.9 | NO | NO | bb |

## Compound name: 13C5-PFNA

## Response Factor: 0.97294

RRF SD: 0.0269307, Relative SD: 2.76797
Response type: Internal Std (Ref 64 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Sta. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag Cob | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. ${ }^{\text {W }}$ | 1 180818M2_2 | Standard | 12.500 | 4.45 | 59863.574 | 60236.574 | 12.423 | 12.8 | 2.1 | NO | NO | bb |
|  | 2 180818M2_3 | Standard | 12.500 | 4.45 | 67695.180 | 69971.438 | 12.093 | 12.4 | -0.6 | NO | NO | bb |
| 3 | 3 180818M2_4 | Standard | 12.500 | 4.46 | 68340.672 | 68446.469 | 12.481 | 12.8 | 2.6 | NO | NO | bb |
| 4 | 4 180818M2_5 | Standard | 12.500 | 4.46 | 65656.313 | 69046.750 | 11.886 | 12.2 | -2.3 | NO | NO | bb |
| $5$ | $5180818 \mathrm{M} 2 \_6$ | Standard | 12.500 | 4.46 | 65899.203 | 69602.227 | 11.835 | 12.2 | -2.7 | NO | NO | bb |
| 6 | $6180818 \mathrm{M} 2 \_7$ | Standard | 12.500 | 4.46 | 52856.008 | 57365.023 | 11.517 | 11.8 | -5.3 | NO | NO | bb |
| $7$ | 7 180818M2_8 | Standard | 12.500 | 4.46 | 57781.816 | 57463.102 | 12.569 | 12.9 | 3.4 | NO | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 12.500 | 4.46 | 56983.832 | 58368.438 | 12.203 | 12.5 | 0.3 | NO | NO | bb |
|  | 9 180818M2_10 | Standard | 12.500 | 4.46 | 43836.965 | 45043.316 | 12.165 | 12.5 | 0.0 | NO | NO | bb |
| $10$ | $10180818 \mathrm{M} 2 \_11$ | Standard | 12.500 | 4.46 | 37410.160 | 37577.844 | 12.444 | 12.8 | 2.3 | NO | NO | bb |

Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: 13C8-PFOSA

## Response Factor: 0.175632

RRF SD: 0.0138859, Relative SD: 7.90627
Response type: Internal Std (Ref 67 ), Area * (IS Conc. / IS Area)
Curve type: RF

| 5 | \# Name | Type | Stic. St. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc Flag men | - CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 12.500 | 4.51 | 10995.329 | 68719.063 | 2.000 | 11.4 | -8.9 | NO | NO | bb |
| 2 | 2 180818M2_3 | Standard | 12.500 | 4.51 | 12783.603 | 73581.734 | 2.172 | 12.4 | -1.1 | NO | NO | bb |
| 3 | 3 180818M2_4 | Standard | 12.500 | 4.51 | 13021.618 | 78171.188 | 2.082 | 11.9 | -5.2 | NO | NO | bb |
| 4 4 - | 4 180818M2_5 | Standard | 12.500 | 4.51 | 12909.742 | 77203.648 | 2.090 | 11.9 | -4.8 | NO | NO | bb |
| 5 | $5180818 \mathrm{M} 2 \ldots 6$ | Standard | 12.500 | 4.51 | 13243.235 | 79956.359 | 2.070 | 11.8 | -5.7 | NO | No | bb |
| 6: | 6 180818M2_7 | Standard | 12.500 | 4.51 | 10939.443 | 64108.160 | 2.133 | 12.1 | -2.8 | NO | NO | bb |
| 7 \% | 7 180818M2_8 | Standard | 12.500 | 4.51 | 10537.659 | 62536.273 | 2.106 | 12.0 | -4.1 | NO | NO | bb |
| 8 | 8 180818M2_9 | Standard | 12.500 | 4.51 | 11397.892 | 60626.645 | 2.350 | 13.4 | 7.0 | NO | NO | bb |
| 9 | 9 180818M2_10 | Standard | 12.500 | 4.51 | 9101.704 | 46332.266 | 2.456 | 14.0 | 11.8 | NO | NO | bb |
| 10 | 10 180818M2_11 | Standard | 12.500 | 4.51 | 7830.218 | 39236.113 | 2.495 | 14.2 | 13.6 | NO | NO | MM |

## Compound name: 13C8-PFOS

Response Factor: 1.05202
RRF SD: 0.0238088, Relative SD: 2.26314
Response type: Internal Std (Ref 65 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT. | Area | IS Area | Response | Conc. | \%Dev | Conc Flag | CoD | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 12.500 | 4.54 | 8633.845 | 8226.517 | 13.119 | 12.5 | -0.2 | NO |  | NO | bb |
| 2 | 2 180818M2_3 | Standard | 12.500 | 4.54 | 10369.880 | 9467.807 | 13.691 | 13.0 | 4.1 | NO |  | NO | bb |
| 3 | 3 180818M2_4 | Standard | 12.500 | 4.54 | 9934.047 | 9296.621 | 13.357 | 12.7 | 1.6 | NO |  | NO | bb |
| 4 | 4 180818M2_5 | Standard | 12.500 | 4.55 | 10066.318 | 9678.090 | 13.001 | 12.4 | -1.1 | NO |  | NO | bb |
| 5. | $5180818 \mathrm{M} 2 \ldots 6$ | Standard | 12.500 | 4.54 | 10378.202 | 9664.661 | 13.423 | 12.8 | 2.1 | NO |  | NO | bb |
| 6 | $6180818 \mathrm{M} 2 \_7$ | Standard | 12.500 | 4.54 | 8346.830 | 8129.179 | 12.835 | 12.2 | -2.4 | NO |  | NO | bb |
| 7 | 7 180818M2_8 | Standard | 12.500 | 4.54 | 8381.159 | 7887.626 | 13.282 | 12.6 | 1.0 | NO |  | NO | bb |
| 8 | 8 180818M2_9 | Standard | 12.500 | 4.55 | 8365.459 | 8123.365 | 12.873 | 12.2 | -2.1 | NO |  | NO | bb |
| 9. | 9 180818M2_10 | Standard | 12.500 | 4.55 | 6619.503 | 6495.429 | 12.739 | 12.1 | -3.1 | NO |  | NO | bb |
| 10.8 | 10 180818M2_11 | Standard | 12.500 | 4.55 | 5448.193 | 5165.695 | 13.184 | 12.5 | 0.3 | NO |  | NO | bb |

## Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

## Compound name: 13C2-PFDA

Response Factor: 0.957327
RRF SD: 0.0369467, Relative SD: 3.85936
Response type: Internal Std (Ref 66 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4.tilim | 1 180818M2_2 | Standard | 12.500 | 4.84 | 58127.895 | 61335.047 | 11.846 | 12.4 | -1.0 | NO | NO | bb |
| $2$ | 2 180818M2_3 | Standard | 12.500 | 4.84 | 67683.633 | 70602.953 | 11.983 | 12.5 | 0.1 | NO | NO | bb |
| 3 | $3180818 \mathrm{M} 2 \ldots 4$ | Standard | 12.500 | 4.84 | 66775.727 | 65152.938 | 12.811 | 13.4 | 7.1 | NO | NO | bb |
| 4 | 4 180818M2_5 | Standard | 12.500 | 4.84 | 64549.098 | 71362.758 | 11.307 | 11.8 | -5.5 | NO | NO | bb |
| $5$ | 5 180818M2_6 | Standard | 12.500 | 4.84 | 65588.977 | 71196.141 | 11.516 | 12.0 | -3.8 | NO | NO | bb |
| 6 | 6180818 M 2 _7 | Standard | 12.500 | 4.84 | 57213.297 | 59303.586 | 12.059 | 12.6 | 0.8 | NO | NO | bb |
| $7$ | 7 180818M2_8 | Standard | 12.500 | 4.84 | 54863.512 | 57831.332 | 11.859 | 12.4 | -0.9 | NO | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 12.500 | 4.84 | 55216.570 | 55064.656 | 12.534 | 13.1 | 4.7 | NO | NO | bb |
| $9$ | 9 180818M2_10 | Standard | 12.500 | 4.84 | 43763.000 | 47301.477 | 11.565 | 12.1 | -3.4 | NO | NO | bb |
| 10 | 10 180818M2_11 | Standard | 12.500 | 4.84 | 37295.633 | 38257.684 | 12.186 | 12.7 | 1.8 | NO | NO | bb |

## Compound name: 13C2-8:2 FTS

Response Factor: 0.118698
RRF SD: 0.0114208, Relative SD: 9.62171
Response type: Internal Std (Ref 63 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type\% | Std. Conc | RT. | Area 15 Area |  | Response | Conc. | \%Dev | Conc. Flag | CoD | CoDflag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| , | 1 180818M2_2 | Standard | 12.500 | 4.81 | 7778.789 | 68346.336 | 1.423 | 12.0 | -4.1 | NO |  | NO | bb |
| 2 2\% | 2 180818M2_3 | Standard | 12.500 | 4.81 | 8695.693 | 78179.555 | 1.390 | 11.7 | -6.3 | NO |  | NO | MM |
| 3 | 3 180818M2_4 | Standard | 12.500 | 4.81 | 8813.728 | 77180.250 | 1.427 | 12.0 | -3.8 | NO |  | NO | bb |
| $4$ | 4 180818M2_5 | Standard | 12.500 | 4.81 | 8295.932 | 75186.430 | 1.379 | 11.6 | $-7.0$ | NO |  | NO | bb |
| 5. | 5 180818M2_6 | Standard | 12.500 | 4.81 | 8706.074 | 77046.625 | 1.412 | 11.9 | -4.8 | NO |  | NO | bb |
| $6$ | $6180818 \mathrm{M} 2 \_7$ | Standard | 12.500 | 4.81 | 7622.302 | 63815.621 | 1.493 | 12.6 | 0.6 | NO |  | NO | bb |
| 7. | 7 180818M2_8 | Standard | 12.500 | 4.81 | 8009.803 | 65389.000 | 1.531 | 12.9 | 3.2 | NO |  | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 12.500 | 4.81 | 9541.461 | 65768.984 | 1.813 | 15.3 | 22.2 | NO |  | NO | bb |
| $9$ | 9180818 M 2 _10 | Standard | 12.500 | 4.81 | 11108.309 | 53449.152 | 2.598 | 21.9 | 75.1 | NO |  | NO | MMX |
| 10. | 10 180818M2_11 | Standard | 12.500 | 4.81 | 14178.939 | 44476.480 | 3.985 | 33.6 | 168.6 | NO |  | NO | bbX |

F:IProjectsIPFAS.PRO\Results1180818M2\180818M2-CRV.qld
Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: d3-N-MeFOSAA

Response Factor: 0.241453
RRF SD: 0.0216418, Relative SD: 8.96315
Response type: Internal Std (Ref 67 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | d. Conc | RT | Area | 15 Area | ponse | Conc. | \%Dev | c. Fla | D Fi | xclu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \times$ | 1 180818M2_2 | Standard | 12.500 | 4.99 | 16529.104 | 68719.063 | 3.007 | 12.5 | -0.4 | NO | NO | bb |
| 2 - | 2 180818M2_3 | Standard | 12.500 | 4.99 | 18098.533 | 73581.734 | 3.075 | 12.7 | 1.9 | NO | NO | bb |
| 3 | 3 180818M2_4 | Standard | 12.500 | 4.99 | 17750.582 | 78171.188 | 2.838 | 11.8 | -6.0 | NO | NO | bb |
| 4 - | 4 180818M2_5 | Standard | 12.500 | 5.00 | 16554.553 | 77203.648 | 2.680 | 11.1 | -11.2 | NO | NO | bb |
|  | 5 180818M2_6 | Standard | 12.500 | 5.00 | 17478.945 | 79956.359 | 2.733 | 11.3 | -9.5 | NO | NO | bb |
| 6 | 6 180818M2_7 | Standard | 12.500 | 4.99 | 15061.185 | 64108.160 | 2.937 | 12.2 | -2.7 | NO | NO | bb |
|  | 7 180818M2_8 | Standard | 12.500 | 5.00 | 14306.636 | 62536.273 | 2.860 | 11.8 | -5.3 | NO | NO | bb |
| 8 | 8 180818M2_9 | Standard | 12.500 | 5.00 | 15261.081 | 60626.645 | 3.147 | 13.0 | 4.3 | NO | NO | bb |
| 9 9 | 9 180818M2_10 | Standard | 12.500 | 5.00 | 12727.530 | 46332.266 | 3.434 | 14.2 | 13.8 | NO | NO | bb |
| 10 | 10 180818M2_11 | Standard | 12.500 | 5.00 | 10899.607 | 39236.113 | 3.472 | 14.4 | 15.1 | NO | NO | bb |

## Compound name: 13C2-PFUdA

Response Factor: 0.98301
RRF SD: 0.0460484, Relative SD: 4.68443
Response type: Internal Std (Ref 67 ), Area * (IS Conc. / IS Area )
Curve type: RF

| 3 | \# Name | Type | V.W Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoDir CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 12.500 | 5.18 | 66091.742 | 68719.063 | 12.022 | 12.2 | -2.2 | NO | NO | bb |
| 2 | 2 180818M2_3 | Standard | 12.500 | 5.18 | 74524.586 | 73581.734 | 12.660 | 12.9 | 3.0 | NO | NO | bb |
| 3 | 3 180818M2_4 | Standard | 12.500 | 5.18 | 78484.578 | 78171.188 | 12.550 | 12.8 | 2.1 | NO | NO | bb |
| 4 | 4 180818M2_5 | Standard | 12.500 | 5.18 | 70985.984 | 77203.648 | 11.493 | 11.7 | -6.5 | NO | NO | bb |
| $5$ | 5 180818M2_6 | Standard | 12.500 | 5.18 | 73522.391 | 79956.359 | 11.494 | 11.7 | -6.5 | NO | NO | bb |
| $6$ | $6180818 \mathrm{M} 2 \ldots 7$ | Standard | 12.500 | 5.18 | 63111.082 | 64108.160 | 12.306 | 12.5 | 0.1 | NO | NO | bb |
| 7 | 7 180818M2_8 | Standard | 12.500 | 5.18 | 59074.332 | 62536.273 | 11.808 | 12.0 | -3.9 | NO | NO | bb |
| 8 | 8 180818M2_9 | Standard | 12.500 | 5.18 | 60681.059 | 60626.645 | 12.511 | 12.7 | 1.8 | NO | NO | bb |
| $9$ | 9 180818M2_10 | Standard | 12.500 | 5.18 | 49082.266 | 46332.266 | 13.242 | 13.5 | 7.8 | NO | NO | bb |
| 10 ) | 10 180818M2_11 | Standard | 12.500 | 5.18 | 40145.508 | 39236.113 | 12.790 | 13.0 | 4.1 | NO | NO | MM |

Dataset: F:\Projects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld

Last Altered:
Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: d5-N-EtFOSAA

Response Factor: 0.262
RRF SD: 0.00733008, Relative SD: 2.79774
Response type: Internal Std (Ref 67 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C2-PFDoA

Response Factor: 1.08284
RRF SD: 0.0535329, Relative SD: 4.94377
Response type: Internal Std (Ref 66 ), Area * (IS Conc. / IS Area )
Curve type: RF


Dataset: F:IProjectsIPFAS.PRO\Results 11808181 M2 1180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: d3-N-MeFOSA

Response Factor: 0.0634621
RRF SD: 0.0125518 , Relative SD: 19.7784
Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)
Curve type: RF

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 180818M2_2 | Standard | 150.000 | 5.63 | 44773.813 | 68719.063 | 8.144 | 128.3 | -14.4 | NO | NO | bb |
| $2{ }^{2}$ | 2 180818M2_3 | Standard | 150.000 | 5.63 | 51491.996 | 73581.734 | 8.747 | 137.8 | -8.1 | NO | NO | bb |
| 3 | 3 180818M2_4 | Standard | 150.000 | 5.63 | 51600.301 | 78171.188 | 8.251 | 130.0 | -13.3 | NO | NO | bb |
| 4 | 4 180818M2_5 | Standard | 150.000 | 5.63 | 50768.145 | 77203.648 | 8.220 | 129.5 | -13.7 | NO | NO | bb |
| 5 | 5 180818M2_6 | Standard | 150.000 | 5.63 | 52514.934 | 79956.359 | 8.210 | 129.4 | -13.8 | NO | NO | bb |
| 6. | 6180818 M 2 _7 | Standard | 150.000 | 5.63 | 43841.633 | 64108.160 | 8.548 | 134.7 | -10.2 | NO | NO | bb |
| 7 | 7 180818M2_8 | Standard | 150.000 | 5.63 | 45911.469 | 62536.273 | 9.177 | 144.6 | -3.6 | NO | NO | bb |
| $8$ | 8 180818M2_9 | Standard | 150.000 | 5.63 | 49512.461 | 60626.645 | 10.208 | 160.9 | 7.2 | NO | NO | bb |
| 9 | 9 180818M2_10 | Standard | 150.000 | 5.63 | 45301.340 | 46332.266 | 12.222 | 192.6 | 28.4 | NO | NO | bb |
| 10 . | 10 180818M2_11 | Standard | 150.000 | 5.63 | 42264.555 | 39236.113 | 13.465 | 212.2 | 41.4 | NO | NO | bb |

## Compound name: 13C2-PFTeDA

## Response Factor: 0.776863

RRF SD: 0.0595667 , Relative SD: 7.6676
Response type: Internal Std (Ref 67 ), Area * (IS Conc. / IS Area)
Curve type: RF

Dataset: F:\Projects\PFAS.PRO\Results\180818M21180818M2-CRV.qld

Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: d5-N-ETFOSA

Response Factor: 0.0775163
RRF SD: 0.00995433 , Relative SD: 12.8416
Response type: Internal Std (Ref 67 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C2-PFHxDA

## Response Factor: 0.990029

RRF SD: 0.10106, Relative SD: 10.2077
Response type: Internal Std (Ref 67 ), Area * (IS Conc. / IS Area )
Curve type: RF

| 2313 |  | \# Name | Type | Std. Conc | RT | Area | a | Response | Conc. | \% Dev | Conc. Flag COD | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | 1 180818M2_2 | Standard | 5.000 | 6.31 | 25528.365 | 68719.063 | 4.644 | 4.7 | -6.2 | NO | NO | bb |
| 2 |  | 2 180818M2_3 | Standard | 5.000 | 6.32 | 27699.385 | 73581.734 | 4.706 | 4.8 | -4.9 | NO | NO | bb |
| 3 |  | 3 180818M2_4 | Standard | 5.000 | 6.32 | 28805.168 | 78171.188 | 4.606 | 4.7 | -7.0 | NO | NO | bb |
| 4 |  | 4 180818M2_5 | Standard | 5.000 | 6.32 | 28361.713 | 77203.648 | 4.592 | 4.6 | -7.2 | NO | NO | bb |
| 5 |  | 5 180818M2_6 | Standard | 5.000 | 6.32 | 28547.113 | 79956.359 | 4.463 | 4.5 | -9.8 | NO | NO | bb |
| 6 | \% | 6 180818M2_7 | Standard | 5.000 | 6.32 | 25459.727 | 64108.160 | 4.964 | 5.0 | 0.3 | NO | NO | bb |
| 7 | \% | 7 180818M2_8 | Standard | 5.000 | 6.32 | 24005.527 | 62536.273 | 4.798 | 4.8 | -3.1 | NO | NO | bb |
| 8 |  | 8 180818M2_9 | Standard | 5.000 | 6.32 | 24727.877 | 60626.645 | 5.098 | 5.1 | 3.0 | NO | NO | bb |
| 9 |  | 9 180818M2_10 | Standard | 5.000 | 6.32 | 20652.566 | 46332.266 | 5.572 | 5.6 | 12.6 | NO | NO | bb |
| 10.\% |  | $10180818 \mathrm{M} 2-11$ | Standard | 5.000 | 6.32 | 19016.867 | 39236.113 | 6.058 | 6.1 | 22.4 | NO | NO | bb |

Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: d7-N-MeFOSE

Response Factor: 0.0492171
RRF SD: 0.00870509, Relative SD: 17.6871
Response type: Internal Std ( Ref 67 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: d9-N-EtFOSE

## Response Factor: 0.0490064

RRF SD: 0.0080952 , Relative SD: 16.5187
Response type: Internal Std (Ref 67 ), Area * (IS Conc. / IS Area )
Curve type: RF


Dataset:
F:IProjects\PFAS.PRO\Results1180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 12:00:13 Pacific Daylight Time

## Compound name: 13C4-PFBA

Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 60 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C5-PFHxA

## Response Factor: 1

RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF


| Dataset: | F:IProjects\PFAS.PROIResultsI180818M21180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:58:55 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 12:00:13 Pacific Daylight Time |

## Compound name: 13C3-PFHxS

## Response Factor: 1

RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 62 ), Area * (IS Conc. I IS Area )
Curve type: RF


## Compound name: 13C8-PFOA

Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std ( Ref 63 ), Area * (IS Conc. I IS Area)
Curve type: RF


## Compound name: 13C9-PFNA

Response Factor: 1
RRF SD: 7.40149e-017, Relative SD: 7.40149e-015
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C4-PFOS

## Response Factor: 1

RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: RF


| Dataset: | F:IProjects\PFAS.PRO\Results\180818MM21180818M |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, August 19, 2018 11:58:55 Pacific Daylight T |
| Printed: | Sunday, August 19, 2018 12:00:13 Pacific Daylight T |

Curve type: RF


## Compound name: 13C7-PFUdA

## Response Factor: 1

RRF SD: 7.40149e-017, Relative SD: 7.40149e-015
Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)
Curve type: RF


Method: F:IProjectsIPFAS.PROWMethDBIPFAS_FULL_80C_081818.mdb 18 Aug 2018 13:22:04
Calibration: F:IProjects\PFAS.PROICurveDBIC-18_VAL-PFĀS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56
Name: 180818M2_2, Date: 18-Aug-2018, Time: 15:14:28, ID: ST180818M2-1 PFC CS-2 18H0901, Description: PFC CS-2 18 H 0901

|  | 4. 1.3 | \# Name | netert. IS\# | CoD | CoDFlag | \%RSD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | W2\% | 1 PFBA | 36 | 0.9987 | NO |  |
| 2 | (1)! | 2 PFPeA | 37 | 0.9992 | NO |  |
| 3 | \% | 3 PFBS | 38 | 0.9975 | NO |  |
| 4 | Wh\%! | 4 4:2FTS | 39 | 0.9990 | NO |  |
| 5 | WH: | 5 PFHxA | 40 | 0.9990 | NO |  |
| 6 | (\%)" | 6 PFPeS | 38 | 0.9970 | NO |  |
| 7 | \% ${ }^{\text {W }}$ | 7 PFHpA | 41 | 0.9993 | NO |  |
| 8 | \% | 8 L-PFHxS | 42 | 0.9979 | NO |  |
| 9 |  | 10 6:2 FTS | 43 | 0.9995 | NO |  |
| 10 | 1. | 11 L-PFOA | 44 | 0.9995 | NO |  |
| 11 | 1 | 13 PFHpS | 47 | 0.9997 | NO |  |
| 12 | 2 | 14 PFNA | 45 | 0.9986 | NO |  |
| 13 | $3$ | 15 PFOSA | 46 | 0.9991 | NO |  |
| 14 | 4 \% | 16 L-PFOS | 47 | 0.9992 | NO |  |
| 15 | 5. | 18 PFDA | 48 | 0.9992 | NO |  |
| 16 |  | 19 8:2 FTS | 49 | 0.9996 | NO |  |
|  | 7.\#\#\#\# | 20 PFNS | 47 | 0.9992 | NO |  |
| 18 |  | 21 L-MeFOSAA | 50 | 0.9996 | NO |  |
| 19 | 9.: | $23 \mathrm{~L}-\mathrm{EtFOSAA}$ | 52 | 0.9994 | NO |  |

Method: F:IProjectsIPFAS.PROMMethDBIPFAS_FULL_80C_081818.mdb 19 Aug 2018 11:58:52
Calibration: F:IProjectsIPFAS.PROICurveDBIC-18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 11:58:23
Name: 180818M2_2, Date: 18-Aug-2018, Time: 15:14:28, ID: ST180818M2-1 PFC CS-2 18H0901, Description: PFC CS-2 18 H 0901

| \% | \# Name | IS\# | CoD | Cob Flag | \%RSD |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 25 PFUdA | 51 | 0.9991 | NO |  |
| 2 | 26 PFDS | 47 | 0.9994 | NO |  |
| 3 | 27 PFDoA | 53 | 0.9995 | NO |  |
| 4 | 28 N-MeFOSA | 54 | 0.9998 | NO |  |
| 5 | 29 PFTrDA | 53 | 0.9993 | NO |  |
| 6 6\% | 30 PFTeDA | 55 | 0.9968 | NO |  |
| $7{ }^{73}$ | 31 N-EtFOSA | 56 | 0.9998 | NO |  |
| 8 | 32 PFHxDA | 57 | 0.9997 | NO |  |
| 9 | 33 PFODA | 57 | 0.9992 | NO |  |
| 10 | 34 N -MeFOSE | 58 | 0.9997 | NO |  |
| 11 | 35 N-EtFOSE | 59 | 0.9998 | NO |  |
| 12 | $3613 C 3-P F B A$ | 60 |  | NO | 1.295 |
| 13 | 37 13C3-PFPeA | 61 |  | No | 6.828 |
| 14 | $3813 \mathrm{C} 3-\mathrm{PFBS}$ | 61 |  | NO | 6.620 |
| 15 | 39 13C2-4:2 FTS | 61 |  | NO | 8.784 |
| 16 | 40 13C2-PFHxA | 61 |  | NO | 3.101 |
| 17 | 41 13C4-PFHpA | 61 |  | NO | 12.239 |
| 18 | 42 1802-PFHxS | 62 |  | NO | 3.711 |
| 19 | 43 13C2-6:2 FTS | 63 |  | NO | 9.255 |
| 20 | 44 13C2-PFOA | 63 |  | NO | 1.723 |
| 21 \% | 45 13C5-PFNA | 64 |  | NO | 2.768 |
| 22 | 46 13C8-PFOSA | 67 |  | NO | 7.906 |
| 23 - | 47 13C8-PFOS | 65 |  | NO | 2.263 |
| 24 | 48 13C2-PFDA | 66 |  | NO | 3.859 |
| 25 = | 49 13C2-8:2 FTS | 63 |  | NO | 9.622 |
| $26: 5$ | 50 d3-N-MeFOSAA | 67 |  | NO | 8.963 |
| 27 | 51 13C2-PFUdA | 67 |  | NO | 4.684 |
| 28 | 52 d5-N-EtFOSAA | 67 |  | NO | 2.798 |
| 29 | 53 13C2-PFDoA | 66 |  | NO | 4.944 |
| 30 - | 54 d3-N-MeFOSA | 67 |  | NO | 19.778 |
| 31 [ | 55 13C2-PFTeDA | 67 |  | NO | 7.668 |

Dataset: $\quad$ F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 12:00:47 Pacific Daylight Time

Name: 180818M2_2, Date: 18-Aug-2018, Time: 15:14:28, ID: ST180818M2-1 PFC CS-2 18H0901, Description: PFC CS-2 18 H 0901

|  | \# Name | IS\# | - CoD | CoD Flag | \%RSD |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 32 | 56 d5-N-ETFOSA | 67 |  | NO | 12.842 |
| 33 | 57 13C2-PFHxDA | 67 |  | NO | 10.208 |
| 34 | $58 \mathrm{d7}$-N-MeFOSE | 67 |  | NO | 17.687 |
| 35 | 59 d9-N-EtFOSE | 67 |  | NO | 16.519 |
| 36 | 60 13C4-PFBA | 60 |  | NO | 0.000 |
| 37 | 61 13C5-PFHxA | 61 |  | NO | 0.000 |
| 38 | 62 13C3-PFHxS | 62 |  | NO | 0.000 |
| 39 | 63 13C8-PFOA | 63 |  | NO | 0.000 |
| 40 | 64 13C9-PFNA | 64 |  | NO | 0.000 |
| 41 | 65 13C4-PFOS | 65 |  | NO | 0.000 |
| 42 | 66 13C6-PFDA | 66 |  | NO | 0.000 |
| 43 - | 67 13C7-PFUdA | 67 |  | NO | 0.000 |

```
Quantify Sample Summary Report
Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 12:00:59 Pacific Daylight Time
```

Method: F:IProjects\PFAS.PROIMethDBIPFAS_FULL_80C_081818.mdb 19 Aug 2018 11:58:52 Calibration: F:\Projects\PFAS.PROICurveDBIC18_VAL-PFĀS_Q4_08-18-18.cdb 19 Aug 2018 11:58:23

Name: 180818M2_7, Date: 18-Aug-2018, Time: 16:08:07, ID: ST180818M2-6 PFC CS3 18H0906, Description: PFC CS3 18H0906

|  | Name $\sim$ Ion Ratio Ratio out? |  |  |
| :---: | :---: | :---: | :---: |
| 1: $3^{2}$ | PFBA |  |  |
| 2 - | PFPeA |  |  |
| $3=$ | PFBS | 2.824 | NO |
| $4 \%$ | 4:2 FTS | 1.519 | NO |
| 5 | PFHxA | 15.306 | NO |
| 6 | PFPeS | 1.709 | NO |
| $7{ }^{7}$ | PFHpA | 20.977 | NO |
| 8 | L-PFHxS | 1.574 | NO |
| 9 9 | 6:2 FTS | 2.710 | NO |
| 10 | L-PFOA | 2.691 | NO |
| 11 | PFHpS | 1.811 | NO |
| 12 | PFNA | 5.003 | NO |
| 13 | PFOSA | 27.943 | NO |
| 14 | L-PFOS | 1.768 | NO |
| 15 - | PFDA | 6.273 | NO |
| 16 | 8:2 FTS | 2.188 | NO |
| 17 - ${ }^{\text {c }}$ | PFNS | 1.569 | NO |
| 18 | L-MeFOSAA | 2.760 | NO |
| 19 | L-EtFOSAA | 1.538 | NO |

Method: F:IProjectsIPFAS.PRO\MethDBIPFAS_FULL_80C_081818.mdb 19 Aug 2018 11:58:52

Name: 180818M2_7, Date: 18-Aug-2018, Time: 16:08:07, ID: ST180818M2-6 PFC CS3 18H0906, Description: PFC CS3 18 H 0906

|  | Name | Ion Ratio | Ratio out? |
| :---: | :---: | :---: | :---: |
| 1 | PFUdA | 12.173 | NO |
| $2{ }^{2}=$ | PFDS | 1.640 | NO |
| 3 | PFDoA | 8.230 | NO |
| 4 | N-MeFOSA | 1.374 | NO |
| 5 | PFTrDA | 30.537 | NO |
| 6 | PFTeDA | 11.898 | NO |
| 7 | N-EtFOSA | 1.480 | NO |
| 8. | PFHxDA | 37.577 | NO |
| 9 | PFODA |  |  |
| 10 | N-MeFOSE |  |  |
| $11 \times$ | N-EtFOSE |  |  |

Printed: $\quad$ Sunday, August 19, 2018 12:06:57 Pacific Daylight Time

Method: F:IProjects\PFAS.PRO\MethDBIPFAS_FULL_80C_081818.mdb 19 Aug 2018 11:58:52

Compound name: PFBA

| 3 | \# Name | 1 D | Acq Date | Acq. Time |
| :---: | :---: | :---: | :---: | :---: |
| 1. | 1 180818M2_1 | IPA | 18-Aug-18 | 15:03:29 |
| 2 | 2 180818M2_2 | ST180818M2-1 PFC CS-2 18H0901 | 18-Aug-18 | 15:14:28 |
| 3. | 3 180818M2_3 | ST180818M2-2 PFC CS-1 18H0902 | 18-Aug-18 | 15:25:13 |
| 4. | 4 180818M2_4 | ST180818M2-3 PFC CSO 18H0903 | 18-Aug-18 | 15:35:53 |
| 5 | 5 180818M2_5 | ST180818M2-4 PFC CS1 18H0904 | 18-Aug-18 | 15:46:40 |
| 6. | 6 180818M2_6 | ST180818M2-5 PFC CS2 18H0905 | 18-Aug-18 | 15:57:21 |
| 7 | 7 180818M2_7 | ST180818M2-6 PFC CS3 18H0906 | 18-Aug-18 | 16:08:07 |
|  | 8 180818M2_8 | ST180818M2-7 PFC CS4 18H0907 | 18-Aug-18 | 16:18:53 |
| $9 \times$ | 9 180818M2_9 | ST180818M2-8 PFC CS5 18H0908 | 18-Aug-18 | 16:29:34 |
| 10 | 10 180818M2_10 | ST180818M2-9 PFC CS6 18H0909 | 18-Aug-18 | 16:40:21 |
| 11 | 11 180818M2_11 | ST180818M2-10 PFC CS7 18H0910 | 18-Aug-18 | 16:51:02 |
| 12 | 12 180818M2_12 | IPA | 18-Aug-18 | 17:01:48 |
| 13 - | 13 180818M2_13 | ICV180818M2-1 PFC 537 ICV 18H0911 | 18-Aug-18 | 17:12:30 |

Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qid
Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

Method: F:IProjects|PFAS.PROIMethDBIPFAS_FULL_80C_081818.mdb 19 Aug 2018 11:58:52
Calibration: F:IProjectsIPFAS.PROICurveDBIC18_VAL-PFĀS_Q4_08-18-18.cdb 19 Aug 2018 11:58:23
Compound name: PFBA
Correlation coefficient: $\mathrm{r}=0.999330, \mathrm{r}^{\wedge} 2=0.998661$
Calibration curve: $1.152855^{*} x+-0.0303052$
Response type: Internal Std (Ref 36 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Work Order 1802055
Page 253 of 364
$\begin{array}{ll}\text { Last Altered: } & \text { Sunday, August 19, } 2018 \text { 11:58:55 Pacific Daylight Time } \\ \text { Printed: } & \text { Sunday August 19, } 2018 \text { 11:59:31 Pacific Daylight Time }\end{array}$ Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

## Compound name: PFPeA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999227$
Calibration curve: 0.000205882 * $x^{\wedge} 2+0.949168$ * $x+-0.0231284$
Response type: Internal Std (Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: F:IProjects\PFAS.PROIResults\180818M21180818M2-CRV.qld

Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

## Compound name: PFBS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997535$
Calibration curve: $0.000367652^{*} x^{\wedge} 2+2.00967^{*} x+-0.144232$
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: F:\Projects\PFAS.PRO\Results\180818M21180818M2-CRV.qld

Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

Compound name: 4:2 FTS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999041$
Calibration curve: $-0.00237094^{*} x^{\wedge} 2+0.9757544^{*} x+0.0265581$
Response type: Internal Std (Ref 39 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.gld
Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

Compound name: PFHxA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998963$
Calibration curve: $-2.04136 e-005$ * $x^{\wedge} 2+0.96052{ }^{*} x+0.00577971$
Response type: Internal Std (Ref 40 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 12:26:56 Pacific Daylight Time
Printed: Sunday, August 19, 2018 12:28:07 Pacific Daylight Time

Method: F:IProjectsIPFAS.PRO\MethDBIPFAS_FULL_80C_081818.mdb 18 Aug 2018 13:22:04
Calibration: F:IProjects\PFAS.PROICurveDBIC18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56
Compound name: PFPeS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997009$
Calibration curve: $0.00155504^{*} x^{\wedge} 2+2.11043^{*} x+0.175165$
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Work Order 1802055
Page 258 of 364

Dataset: F:IProjects\PFAS.PRO【Results\180818M21180818M2-CRV.qld
Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

## Compound name: PFHpA

Correlation coefficient: $\mathrm{r}=0.999647, \mathrm{r}^{\wedge} 2=0.999294$
Calibration curve: 1.1179 * $x+0.0128617$
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld

## Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time

Printed:
Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

Compound name: L-PFHxS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997922$
Calibration curve: $0.000203599^{*} x^{\wedge} 2+1.73343$ * $x+-0.0243523$
Response type: Internal Std (Ref 42 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Dataset: $\quad$ F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

Compound name: 6:2 FTS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999516$
Calibration curve: $-0.00268909^{*} x^{\wedge} 2+1.04265^{*} x+0.0289747$
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld
Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

## Compound name: L-PFOA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999468$
Calibration curve: $-8.79959 \mathrm{e}-006^{*} x^{\wedge} 2+1.00823^{*} x+0.0337205$
Response type: Internal Std (Ref 44 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

## Compound name: PFHpS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999677$
Calibration curve: $6.52795 e-005^{*} x^{\wedge} 2+0.854196$ * $x+-0.0385694$
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

Compound name: PFNA
Coefficient of Determination: $\mathbf{R}^{\wedge} 2=0.998633$
Calibration curve: $1.80742 \mathrm{e}-005^{*} x^{\wedge} 2+1.18056{ }^{*} x+-0.0313309$
Response type: Internal Std (Ref 45 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

Compound name: PFOSA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999077$
Calibration curve: $0.000189127^{*} x^{\wedge} 2+1.03389^{*} x+-0.0115339$
Response type: Internal Std (Ref 46 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PROIResults\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

## Compound name: L-PFOS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999247$
Calibration curve: 0.000319688 * $x^{\wedge} 2+0.920147{ }^{*} x+-0.0246865$
Response type: Internal Std (Ref 47 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Dataset: F:\Projects\PFAS.PRO\Results\180818M2\180818M2-CRV.qid
Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

Compound name: PFDA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999189$
Calibration curve: $3.65304 \mathrm{e}-005^{*} x^{\wedge} 2+1.24693^{*} x+-0.0114924$
Response type: Internal Std (Ref 48 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None
 Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

Compound name: 8:2 FTS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999620$
Calibration curve: $-0.00373101^{*} x^{\wedge} 2+1.30929$ * $x+-0.00481343$
Response type: Internal Std (Ref 49 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld

Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

## Compound name: PFNS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999247$
Calibration curve: - $1.97777 \mathrm{e}-006^{*} x^{\wedge} 2+0.822519^{*} x+-0.00791944$
Response type: Internal Std (Ref 47 ), Area* (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: FiIProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld

Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

## Compound name: L-MeFOSAA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999629$
Calibration curve: $7.43899 \mathrm{e}-005^{*} x^{\wedge} 2+1.21424{ }^{*} x+-0.0674876$
Response type: Internal Std (Ref 50 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


## Dataset: $\quad$ F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld

Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:31 Pacific Daylight Time

Compound name: L-EtFOSAA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999446$
Calibration curve: $5.42069 \mathrm{e}-005^{*} x^{\wedge} 2+0.942918$ * $x+-0.0792023$
Response type: Internal Std (Ref 52 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PROIResults\180818M2\180818M2-CRV.qId
Last Altered: Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 11:59:43 Pacific Daylight Time

Method: F:IProjectsIPFAS.PROMMethDBIPFAS_FULL_80C_081818.mdb 19 Aug 2018 11:58:52
Calibration: F:IProjects\PFAS.PROICurveDBIC18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 11:58:23
Compound name: PFUdA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999065$
Calibration curve: $-4.78243 \mathrm{e}-005{ }^{*} x^{\wedge} 2+0.960284{ }^{*} x+0.0221714$
Response type: Internal Std (Ref 51 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Work Order 1802055
Page 272 of 364

## Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld

Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:43 Pacific Daylight Time

## Compound name: PFDS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999417$
Calibration curve: $4.4146 e-005^{*} x^{\wedge} 2+0.922936$ * $x+-0.032404$
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld

Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:43 Pacific Daylight Time

## Compound name: PFDoA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999456$
Calibration curve: $-7.09846 e-005$ * $x^{\wedge} 2+1.10919$ * $x+-0.00452959$
Response type: Internal Std (Ref 53 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: F:IProjects\PFAS.PROIResults\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:43 Pacific Daylight Time

Compound name: N-MeFOSA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999843$
Calibration curve: -6.96714e-005 * $x^{\wedge} 2+0.956469$ * x + 0.187477
Response type: Internal Std (Ref 54 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: $1 / \mathrm{x}$, Axis trans: None


Dataset: F:\Projects\PFAS.PRO\Results\180818M2\180818M2-CRV.qid
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:59:43 Pacific Daylight Time

Compound name: PFTrDA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999328$
Calibration curve: $3.73082 e-005^{*} x^{\wedge} 2+1.15239$ * $x+-0.0207788$
Response type: Internal Std (Ref 53 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:43 Pacific Daylight Time

Compound name: PFTeDA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.996826$
Calibration curve: $-0.000215569^{*} x^{\wedge} 2+1.2779$ * $x+-0.0148886$
Response type: Internal Std (Ref 55 ), Area * ( IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset F:\Projects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld

Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:43 Pacific Daylight Time

Compound name: N-EtFOSA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999793$
Calibration curve: $-4.67046 \mathrm{e}-005^{*} x^{\wedge} 2+0.922037^{*} x+0.0631164$
Response type: Internal Std (Ref 56 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: F:\Projects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:43 Pacific Daylight Time

## Compound name: PFHxDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999740$
Calibration curve: $-0.000134784^{*} x^{\wedge} 2+0.66615^{*} x+0.0546142$
Response type: Internal Std (Ref 57 ), Area * (IS Conc. I IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:43 Pacific Daylight Time

## Compound name: PFODA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999246$
Calibration curve: $-0.000128997^{*} x^{\wedge} 2+0.764394$ * $x+0.0122833$
Response type: Internal Std (Ref 57 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:59:43 Pacific Daylight Time

## Compound name: N-MeFOSE

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999661$
Calibration curve: $5.21489 \mathrm{e}-005^{*} x^{\wedge} 2+0.937354{ }^{*} x+0.147332$
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:58:55 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:59:43 Pacific Daylight Time

## Compound name: N-EtFOSE

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999844$
Calibration curve: $0.000111078{ }^{*} x^{\wedge} 2+1.0899$ * $x+0.234412$
Response type: Internal Std (Ref 59 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Method: F:IProjects\PFAS.PRO\MethDBIPFAS_FULL_80C_081818.mdb 18 Aug 2018 13:22:04
Calibration: 19 Aug 2018 11:35:57
Name: 180818M2_2, Date: 18-Aug-2018, Time: 15:14:28, ID: ST180818M2-1 PFC CS-2 18H0901, Description: PFC CS-2 18H0901


13C3-PFBA
F3:MRM of 1 channel,ES-



13C3-PFPeA


## 13C3-PFBS





## 13C2-PFHxA




## 13C3-PFBS

F8:MRM of 1 channel,ES-


Page 283 of 364

Dataset:
F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_2, Date: 18-Aug-2018, Time: 15:14:28, ID: ST180818M2-1 PFC CS-2 18H0901, Description: PFC CS-2 18 H 0901


F24:MRM of 2 channels,ES-
$427.1>80$
$1.635 \mathrm{e}+003$














## 13C2-PFOA






## 13C5-PFNA

F28:MRM of 1 channel,ES$468.2>422.9$


Name: 180818M2_2, Date: 18-Aug-2018, Time: 15:14:28, ID: ST180818M2-1 PFC CS-2 18H0901, Description: PFC CS-2 18H0901


| Dataset: | F.\Projects\PFAS.PROIResults\180818M2\180818M2-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

Name: 180818M2_2, Date: 18-Aug-2018, Time: 15:14:28, ID: ST180818M2-1 PFC CS-2 18H0901, Description: PFC CS-2 18 H 0901


Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_2, Date: 18-Aug-2018, Time: 15:14:28, ID: ST180818M2-1 PFC CS-2 18H0901, Description: PFC CS-2 18H0901


Dataset: F:IProjectsIPFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_2, Date: 18-Aug-2018, Time: 15:14:28, ID: ST180818M2-1 PFC CS-2 18H0901, Description: PFC CS-2 18H0901


## Name: 180818M2_3, Date: 18-Aug-2018, Time: 15:25:13, ID: ST180818M2-2 PFC CS-1 18H0902, Description: PFC CS-1 18 H 0902



| Dataset: | F:\Projects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

## Name: 180818M2_3, Date: 18-Aug-2018, Time: 15:25:13, ID: ST180818M2-2 PFC CS-1 18H0902, Description: PFC CS-1 18 H 0902



F24:MRM of 2 channels,ES-
$427.1>80$ $4.115 \mathrm{e}+003$





F16:MRM of 2 channels, ES-
$363.0>1690$



F18:MRM of 2 channels, ES-
$398.9>99.0$


1802-PFHxS



F21:MRM of 2 channels, ES- $\begin{array}{r}412.9>169\end{array}$ $100-2.550 \mathrm{e}+004$


## 13C2-PFOA




F26:MRM of 2 channels, ES-
$449>98.7$


13C8-PFOS
F35:MRM of 1 channel,ES-



13C5-PFNA
F28:MRM of 1 channel,ES$468.2>422.9$


| Dataset: | F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

## Name: 180818M2_3, Date: 18-Aug-2018, Time: 15:25:13, ID: ST180818M2-2 PFC CS-1 18H0902, Description: PFC CS-1 18 H 0902



F30:MRM of 2 channels,ES-




F32:MRM of 2 channels, ES-



PFDA
F37:MRM of 2 channels, ES-
$513>468.8$
$8.859 \mathrm{e}+004$


F38.MRM of 1 channel ES


13C2-8:2 FTS
F43:MRM of 1 channel,ES-
F43:MRM of 1 channel,ES-
$529.1>508.7$
$2.304 \mathrm{e}+005$



F48:MRM of 2 channels,ES570. > 512

d3-N-MeFOSAA
F50:MRM of 1 channel,ES$573.3>419$ $4.338 \mathrm{e}+005$

| Dataset: | F:\Projects 1 PFAS.PRO\Results\180818M2\180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

Name: 180818M2_3, Date: 18-Aug-2018, Time: 15:25:13, ID: ST180818M2-2 PFC CS-1 18H0902, Description: PFC CS-1 18H0902



## d5-N-EtFOSAA





F54:MRM of 4 channels,ES-
$612.9>318.8$

13C2-PFDoA
5.


PFDS

F53:MRM of 2 channels,ES- | $598.8>79.9$ |
| ---: |
| $8.506 e+003$ |

PFUdA



13C8-PFOS



d3-N-MeFOSA
F39:MRM of 1 channel,ES-
$515.2>168.9$


PFTrDA
F60:MRM of 2 channels,ES$662.9>618.9$ $7.826 e+004$


F60:MRM of 2 channels, ES-


13C2-PFDoA
F55:MRM of 2 channels,ES$615.0>569.7$ $1.815 \mathrm{e}+006$


| Dataset: | F:IProjects\PFAS.PROIResults\180818M2\180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

## Name: 180818M2_3, Date: 18-Aug-2018, Time: 15:25:13, ID: ST180818M2-2 PFC CS-1 18H0902, Description: PFC CS-1 18 H 0902


Printed: Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_3, Date: 18-Aug-2018, Time: 15:25:13, ID: ST180818M2-2 PFC CS-1 18H0902, Description: PFC CS-1 18 H 0902




13C7-PFUdA

$$
\text { F49:MRM of } 1 \text { channel,ES- }
$$

$$
570.1>524.8
$$






Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

## Name: 180818M2_4, Date: 18-Aug-2018, Time: 15:35:53, ID: ST180818M2-3 PFC CS0 18H0903, Description: PFC CSO 18 H 0903












13C3-PFBS
F8:MRM of 1 channel,ES-
$302 .>98.8$
8534




Name: 180818M2_4, Date: 18-Aug-2018, Time: 15:35:53, ID: ST180818M2-3 PFC CS0 18H0903, Description: PFC CSO 18 H 0903

Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_4, Date: 18-Aug-2018, Time: 15:35:53, ID: ST180818M2-3 PFC CS0 18H0903, Description: PFC CS0 18 H 0903







F37:MRM of 2 channels,ES-
$513>219$







F45:MRM of 2 channels,ES-
549.1 > 99.1



d3-N-MeFOSAA
F50:MRM of 1 channel,ES$573.3>419$

Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld

| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time <br> Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |
| :--- | :--- |

Name: 180818M2_4, Date: 18-Aug-2018, Time: 15:35:53, ID: ST180818M2-3 PFC CS0 18H0903, Description: PFC CS0 18 H 0903

Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qid

| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time <br> Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |
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| Printed: |  |

## Name: 180818M2_4, Date: 18-Aug-2018, Time: 15:35:53, ID: ST180818M2-3 PFC CS0 18H0903, Description: PFC CS0 18 H 0903



F61:MRM of 2 channels,ES-
712.8 > 368.9 $1.220 \mathrm{e}+004$


## 13C2-PFTeDA

F62:MRM of 2 channels,ES$714.8>669.6$ $1.431 \mathrm{e}+006$




## d5-N-ETFOSA

F44:MRM of 1 channel,ES-
F44.MRM of 1 channel,ES-
$531.1>168.9$



F63:MRM of 2 channels,ES-





d7-N-MeFOSE
F57:MRM of 1 channel,ES-
$623.1>58.9$



## d9-N-EtFOSE

F59:MRM of 1 channel,ES-
$639.2>58.8$


Dataset:
F:\Projects\PFAS.PRO\Results1180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_4, Date: 18-Aug-2018, Time: 15:35:53, ID: ST180818M2-3 PFC CS0 18H0903, Description: PFC CSO 18 H 0903


## 13C6-PFDA

F40:MRM of 1 channel,ES$519.1>473.7$ $1.643 \mathrm{e}+006$



## 13C7-PFUdA

F49:MRM of 1 channel,ES$570.1>524.8$ $1.951 \mathrm{e}+006$



13C4-PFOS
F33:MRM of 1 channel,ES$503>79.9$


Name: 180818M2_5, Date: 18-Aug-2018, Time: 15:46:40, ID: ST180818M2-4 PFC CS1 18H0904, Description: PFC CS1 18 H 0904


| Dataset: | F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |



| Dataset: | F:IProjectsIPFAS.PRO\Results\180818M21180818M2-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

Name: 180818M2_5, Date: 18-Aug-2018, Time: 15:46:40, ID: ST180818M2-4 PFC CS1 18H0904, Description: PFC CS1 18 H 0904


F30:MRM of 2 channels,ES$498>169$



F34:MRM of 1 channel,ES-
$506.1>77.7$



F32:MRM of 2 channels, ES- $\begin{array}{r}498.9>99\end{array}$


13C8-PFOS
F35:MRM of 1 channel,ES-
$507.0>79.9$ $507.0>79.9$
$100-\quad 2.642 \mathrm{e}+005$



F42:MRM of 2 channels,ES-
$527>80$


13C2-8:2 FTS
F43:MRM of 1 channel,ES-
$529.1>508.7$
$529.1>508.7$
100
$2.204 \mathrm{e}+005$



F45:MRM of 2 channels, ES-
$549.1>99.1$


## 13C8-PFOS

F35:MRM of 1 channel,ES-
$507.0>79.9$
$2.642 \mathrm{e}+005$
d3-N-MeFOSAA
F50:MRM of 1 channel,ES$573.3>419$


## Name: 180818M2_5, Date: 18-Aug-2018, Time: 15:46:40, ID: ST180818M2-4 PFC CS1 18H0904, Description: PFC CS1 18 H 0904



d5-N-EtFOSAA
F52:MRM of 1 channel,ES$589.3>419$


| PFDOA |
| :--- |
| F54:MRM of 4 channels,ES- |
| $612.9>569.0$ |
| 100 |




F55:MRM of 2 channels,ES-
F55.MRM of 2 channels, ES-
$615.0>569.7$
13C8-PFOS
F35:MRM of 1 channel,ES-








F47:MRM of 1 channel,ES$565>519.8$ $1.791 \mathrm{e}+006$



F36:MRM of 2 channels,ES-
$512.1>219$

d3-N-MeFOSA
F39:MRM of 1 channel,ES$515.2>168.9$




13C2-PFDoA
F55:MRM of 2 channels,ES$615.0>569.7$


Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

## Name: 180818M2_5, Date: 18-Aug-2018, Time: 15:46:40, ID: ST180818M2-4 PFC CS1 18H0904, Description: PFC CS1 18 H0904

PFTEDA
F61:MRM of 2 channels, ES-
$712.8>669.0$
$2.715 \mathrm{e}+005$
N-EtFOSA
F41:MRM of 2 channels,ES-
$526.1>168.9$
$9.032 \mathrm{e}+004$

F61:MRM of 2 channels, ES-
$712.8>368.9$




## 13C2-PFHxDA

F64:MRM of 1 channel, ES-



## 13C2-PFHxDA



d9-N-EtFOSE
F59:MRM of 1 channel,ES$639.2>58.8$ $1.012 \mathrm{e}+006$


Dataset: $\quad$ F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_5, Date: 18-Aug-2018, Time: 15:46:40, ID: ST180818M2-4 PFC CS1 18H0904, Description: PFC CS1 18 H 0904






| Dataset: | F:\Projects\PFAS.PRO\Results\180818M21180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |


Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_6, Date: 18-Aug-2018, Time: 15:57:21, ID: ST180818M2-5 PFC CS2 18H0905, Description: PFC CS2 18 H0905


F24:MRM of 2 channels,ES4.00 $\begin{array}{r}427.1>80 \\ 4.575 \mathrm{e}+004\end{array}$

## 13C2-6:2 FTS

F25:MRM of 1 channel,ESF25:MRM of 1 channel,ES-
$429.1>408.9$




## 13C4-PFHpA

F17:MRM of 1 channel,ES$3672>3218$ 692e+005


F18:MRM of 2 channels,ES-


18O2-PFHxS
F20:MRM of 1 channel,ES-
$403.0>102.6$

|  |
| ---: | ---: |
| $100-\quad 9.683 \mathrm{e}+004$ |



## L-PFOA

F21:MRM of 2 channels,ES-
F21:MRM of 2 channels, ES-
$412.9>368.9$ $100-6.341 \mathrm{e}+005$


F21:MRM of 2 channels,ES-
$412.9>169$ $2.372 e+005$



F22:MRM of 1 channel,ES414.9 > 369.7 $1.690 \mathrm{e}+006$

PFHpS
F26:MRM of 2 channels,ES-
$449>80.0$
$8.081 \mathrm{e}+004$


## 13C8-PFOS

F35:MRM of 1 channel,ES-
$507.0>79.9$


PFNA
F27:MRM of 2 channels,ES$463.0>418.8$


F27:MRM of 2 channels,ES463.0 > 219.0 $1.697 e+005$


## 13C5-PFNA

F28:MRM of 1 channel,ES$468.2>422.9$ $1.795 \mathrm{e}+006$


## Name: 180818M2_6, Date: 18-Aug-2018, Time: 15:57:21, ID: ST180818M2-5 PFC CS2 18H0905, Description: PFC CS2 18 H 0905



Last Altered: Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_6, Date: 18-Aug-2018, Time: 15:57:21, ID: ST180818M2-5 PFC CS2 18H0905, Description: PFC CS2 18 H 0905





F60:MRM of 2 channels,ES$662.9>319$


13C2-PFDoA
F55:MRM of 2 channels, ES615.0 > 569.7

Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: Sunday, August 19, 2018 11:01:28 Pacific Daylight Time

Printed: Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

## Name: 180818M2_6, Date: 18-Aug-2018, Time: 15:57:21, ID: ST180818M2-5 PFC CS2 18H0905, Description: PFC CS2 18 H 0905












Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_6, Date: 18-Aug-2018, Time: 15:57:21, ID: ST180818M2-5 PFC CS2 18H0905, Description: PFC CS2 18 H 0905





| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_7, Date: 18-Aug-2018, Time: 16:08:07, ID: ST180818M2-6 PFC CS3 18H0906, Description: PFC CS3 18 H 0906


| Dataset: | F:IProjects\PFAS.PROIResults\180818M21180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

## Name: 180818M2_7, Date: 18-Aug-2018, Time: 16:08:07, ID: ST180818M2-6 PFC CS3 18H0906, Description: PFC CS3 18 H 0906



F24:MRM of 2 channels,ES$427.1>80$




F16:MRM of 2 channels,ES-
$363.0>169$.


## 13C4-PFHpA

F17:MRM of 1 channel,ES367.2 > 321.8 $7.538 \mathrm{e}+005$



F18:MRM of 2 channels,ES$\begin{array}{rr} & 398.9>99.0 \\ 100- & 5.811 \mathrm{e}+004\end{array}$


## 1802-PFHxS




F21:MRM of 2 channels,ES-


## 13C2-PFOA





F27:MRM of 2 channels,ES-
$463.0>219.0$


13C5-PFNA
F28:MRM of 1 channel,ES$468.2>422.9$

Dataset:
Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

## Name: 180818M2_7, Date: 18-Aug-2018, Time: 16:08:07, ID: ST180818M2-6 PFC CS3 18H0906, Description: PFC CS3 18 H 0906
















d3-N-MeFOSAA
F50:MRM of 1 channel,ES-
$573.3>419$



Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

## Name: 180818M2_7, Date: 18-Aug-2018, Time: 16:08:07, ID: ST180818M2-6 PFC CS3 18H0906, Description: PFC CS3 18 H 0906






F54:MRM of 4 channels,ES$612.9>318.8$ $1.541 \mathrm{e}+005$



F55:MRM of 2 channels,ES-
$615.0>569.7$



F53:MRM of 2 channels,ES-








F60:MRM of 2 channels,ES$662.9>319$ $4.131 e+004$



F55:MRM of 2 channels,ES $615.0>569.7$ $1.516 \mathrm{e}+006$
Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.ald

Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_7, Date: 18-Aug-2018, Time: 16:08:07, ID: ST180818M2-6 PFC CS3 18H0906, Description: PFC CS3 18 H 0906


F61:MRM of 2 channels,ES$712.8>368.9$




F41:MRM of 2 channels,ES-





## N-MeFOSE




d9-N-EtFOSE
F59:MRM of 1 channel,ES $639.2>58.8$


Name: 180818M2_7, Date: 18-Aug-2018, Time: 16:08:07, ID: ST180818M2-6 PFC CS3 18H0906, Description: PFC CS3 18 H 0906


## 13C6-PFDA

F40:MRM of 1 channel,ES$519.1>473.7$


## 13C5-PFHXA <br> F11:MRM of 1 channel,ES $318>272.9$ <br> 

13C7-PFUdA
F49:MRM of 1 channel,ES$570.1>524.8$






## Name: 180818M2_8, Date: 18-Aug-2018, Time: 16:18:53, ID: ST180818M2-7 PFC CS4 18H0907, Description: PFC CS4 18H0907









F12:MRM of 2 channels,ES-


13C2-4:2 FTS
F13:MRM of 1 channel,ES-
$329.2>308.9$



F9:MRM of 2 channels,ES-
$313>118.9$
$2687 \mathrm{e}+005$


13C3-PFBS



F8:MRM of 1 channel,ES302. > 98.8


| Dataset: | F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

Name: 180818M2_8, Date: 18-Aug-2018, Time: 16:18:53, ID: ST180818M2-7 PFC CS4 18H0907, Description: PFC CS4 18 H 0907


F24:MRM of 2 channels,ES-
$427.1>80$




## 13C4-PFHpA











F26:MRM of 2 channels, ES-


13C8-PFOS
F35:MRM of 1 channel, ES-
$507.0>79.9$
$507.0>79.9$
100
$2.100 \mathrm{e}+005$



Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_8, Date: 18-Aug-2018, Time: 16:18:53, ID: ST180818M2-7 PFC CS4 18H0907, Description: PFC CS4 18H0907


13C8-PFOSA
F34:MRM of 1 channel,ES-




13C8-PFOS
F35:MRM of 1 channel,ES-
$507.0>79.9$



F37:MRM of 2 channels,ES-
$513>219$ $1.098 \mathrm{e}+006$


## 13C2-PFDA

F38:MRM of 1 channel,ES-
$515.1>469.9$
$1.452 \mathrm{e}+006$



F42:MRM of 2 channels, ES-
$527>80$ $4.040 \mathrm{e}+005$


13C2-8:2 FTS
F43:MRM of 1 channel,ES$529.1>508.7$




13C8-PFOS
F35:MRM of 1 channel,ES-



F48:MRM of 2 channels,ES-
570. > 512

d3-N-MeFOSAA
F50:MRM of 1 channel,ES$573.3>419$


| Dataset: | F:\Projects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

## Name: 180818M2_8, Date: 18-Aug-2018, Time: 16:18:53, ID: ST180818M2-7 PFC CS4 18H0907, Description: PFC CS4 18 H 0907

## L-EtFOSAA <br> 

F51:MRM of 2 channels,ES $584.1>526$


## d5-N-EtFOSAA

F52:MRM of 1 channel,ES $589.3>419$
$3.978 \mathrm{e}+005$





## 13C2-PFDoA

F55:MRM of 2 channels,ES-



F53:MRM of 2 channels,ES-
$598.8>98.9$


## 13C8-PFOS




F36:MRM of 2 channels,ES$512.1>219$

d3-N-MeFOSA
F39:MRM of 1 channel,ES-





Dataset: F:\Projects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_8, Date: 18-Aug-2018, Time: 16:18:53, ID: ST180818M2-7 PFC CS4 18H0907, Description: PFC CS4 18 H 0907


PFODA
F65:MRM of 1 channel,ES-
$913.1>868.8$
$4.539 e^{2}+006$

13C2-PFHxDA
F64:MRM of 1 channel,ES$815>769.7$ $5.683 e+005$


d7-N-MeFOSE
F57:MRM of 1 channel,ES-


d9-N-EtFOSE
F59:MRM of 1 channel,ES-


Dataset: F:IProjectsiPFAS.PRO\Results\180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_8, Date: 18-Aug-2018, Time: 16:18:53, ID: ST180818M2-7 PFC CS4 18H0907, Description: PFC CS4 18 H 0907


## 13C6-PFDA

F40:MRM of 1 channel,ES$519.1>473.7$ $1.525 \mathrm{e}+006$
 5.000


## 13C7-PFUdA

F49:MRM of 1 channel,ES$570.1>5248$ $1.555 \mathrm{e}+006$





Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

## Name: 180818M2_9, Date: 18-Aug-2018, Time: 16:29:34, ID: ST180818M2-8 PFC CS5 18H0908, Description: PFC CS5 18H0908



Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_9, Date: 18-Aug-2018, Time: 16:29:34, ID: ST180818M2-8 PFC CS5 18H0908, Description: PFC CS5 18 H 0908


## Name: 180818M2_9, Date: 18-Aug-2018, Time: 16:29:34, ID: ST180818M2-8 PFC CS5 18H0908, Description: PFC CS5 18 H 0908



## 13C8-PFOSA

F34:MRM of 1 channel,ES-
$506.1>77.7$





## 13C8-PFOS

F35:MRM of 1 channel,ES-
$507.0>79.9$




F37:MRM of 2 channels,ES-
$513>219$


## 13C2-PFDA

F38:MRM of 1 channel,ES-
$515.1>469.9$



F42:MRM of 2 channels, ES-
$527>80$


## 13C2-8:2 FTS

F43:MRM of 1 channel,ES-
$529.1>508.7$



F45:MRM of 2 channels, ES-


13C8-PFOS
F35:MRM of 1 channel,ES-
$507.0>79.9$


d3-N-MeFOSAA
F50:MRM of 1 channel,ES$573.3>419$


Name: 180818M2_9, Date: 18-Aug-2018, Time: 16:29:34, ID: ST180818M2-8 PFC CS5 18H0908, Description: PFC CS5 18 H 0908


d5-N-EtFOSAA
F52:MRM of 1 channel,ES$589.3>419$



F54:MRM of 4 channels,ES$612.9>318.8$





F53:MRM of 2 channels,ES$598.8>98.9$


## 13C8-PFOS

F35:MRM of 1 channel,ES-

$$
\begin{array}{r}
507.0>79.9 \\
\\
100.047 \mathrm{e}+005
\end{array}
$$







F36:MRM of 2 channels,ES$512.1>219$
$2.393 e+006$




F60:MRM of 2 channels,ES$662.9>319$ $3.956 \mathrm{e}+005$


13C2-PFDoA
F55:MRM of 2 channels,ES$615.0>569.7$

Last Altered: Sunday, August 19, 2018 11:01:28 Pacific Daylight Time

Printed: Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_9, Date: 18-Aug-2018, Time: 16:29:34, ID: ST180818M2-8 PFC CS5 18H0908, Description: PFC CS5 18 H 0908


F61:MRM of 2 channels, ES. $712.8>368.9$ $8.673 \mathrm{e}+005$


13C2-PFTeDA
F62:MRM of 2 channels,ES$14.8>669.6$ $1.109 \mathrm{e}+006$




## d5-N-ETFOSA

F44:MRM of 1 channel,ES531.1 > 168.9



## 13C2-PFHxDA

F64:MRM of 1 channel,ES$815>769.7$ $5.938 \mathrm{e}+005$

PFODA
F65:MRM of 1 channel,ES-
$913.1>868.8$
$8.886 \mathrm{e}+006$


## 13C2-PFHXDA

F64:MRM of 1 channel,ES$815>769.7$

d7-N-MeFOSE
F57:MRM of 1 channel,ES-
$623.1>58.9$
$8.650 \mathrm{e}+005$




Name: 180818M2_9, Date: 18-Aug-2018, Time: 16:29:34, ID: ST180818M2-8 PFC CS5 18H0908, Description: PFC CS5 18 H 0908


## 13C6-PFDA

F40:MRM of 1 channel,ES-
F40.MRM of 1 channel,ES-
$519.1>473.7$



## 13C7-PFUdA







Name: 180818M2_10, Date: 18-Aug-2018, Time: 16:40:21, ID: ST180818M2-9 PFC CS6 18H0909, Description: PFC CS6 18 H 0909


## Vista Analytical Laboratory

Dataset:
F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

## Name: 180818M2_10, Date: 18-Aug-2018, Time: 16:40:21, ID: ST180818M2-9 PFC CS6 18H0909, Description: PFC CS6 18 H 0909



| Dataset: | F:IProjects\PFAS.PROIResults\180818M2\180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

## Name: 180818M2_10, Date: 18-Aug-2018, Time: 16:40:21, ID: ST180818M2-9 PFC CS6 18H0909, Description: PFC CS6 18 H 0909

## PFOSA

F30:MRM of 2 channels,ES-
$498>77.9$
$5.5108+006$
100 5.510e+006













F48:MRM of 2 channels,ES-
$570 .>512$

d3-N-MeFOSAA


Dataset: F:IProjects\PFAS.PROXResults\180818M2\180818M2-CRV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_10, Date: 18-Aug-2018, Time: 16:40:21, ID: ST180818M2-9 PFC CS6 18H0909, Description: PFC CS6 18 H 0909

## L-EtFOSAA <br> 

F51:MRM of 2 channels, ES$584.1>526$

d5-N-EtFOSAA
F52:MRM of 1 channel,ES$589.3>419$ $589.3>419$
$3.161 \mathrm{e}+005$




13C2-PFDoA
F55:MRM of 2 channels,ES$615.0>569.7$
$1.070 \mathrm{e}+006$


## PFDS

F53:MRM of 2 channels,ES-
$598.8>79.9$
$3.232 \mathrm{e}+006$
F53:MRM of 2 channels,ES$598.8>98.9$


13C8-PFOS
F35:MRM of 1 channel,ES507.0 > 79.9 $1.609 \mathrm{e}+005$


## PFUdA

F46:MRM of 2 channels, ES. F46:MRM of 2 channels,ES-
$563.0>518.9$


F36:MRM of 2 channels,ES-
$512.1>219$

d3-N-MeFOSA
F39:MRM of 1 channel,ES515.2 > 168.9 $1.020 \mathrm{e}+006$



F60:MRM of 2 channels,ES$662.9>319$


13C2-PFDoA
F55:MRM of 2 channels,ES$615.0>569.7$

Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld

Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_10, Date: 18-Aug-2018, Time: 16:40:21, ID: ST180818M2-9 PFC CS6 18H0909, Description: PFC CS6 18 H 0909




F41:MRM of 2 channels,ES$526.1>219$ $5.370 \mathrm{e}+006$



PFHxDA


F63:MRM of 2 channels,ES$813.1>219$ $4.087 \mathrm{e}+005$


13C2-PFHxDA
F64:MRM of 1 channel,ES-
$815>769.7$


PFODA


## 13C2-PFHxDA

F64:MRM of 1 channel,ES$815>769.7$ $4.737 \mathrm{e}+005$


N-MeFOSE
F56:MRM of 1 channel,ES-
$616.1>58.9$

d7-N-MeFOSE
F57:MRM of 1 channel,ES$623.1>58.9$


d9-N-EtFOSE
F59:MRM of 1 channel,ES-
$639.2>58.8$ $639.2>58.8$
$9.289 e+005$


| Dataset: | F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

Name: 180818M2_10, Date: 18-Aug-2018, Time: 16:40:21, ID: ST180818M2-9 PFC CS6 18H0909, Description: PFC CS6 18 H 0909


## 13C6-PFDA

F40:MRM of 1 channei,ES-
$519.1>473.7$ $1.214 \mathrm{e}+006$

## 13C3-PFHxS

F19:MRM of 1 channel,ES-
$401.8>79.9$
$1.442 \mathrm{e}+005$



Name: 180818M2_11, Date: 18-Aug-2018, Time: 16:51:02, ID: ST180818M2-10 PFC CS7 18H0910, Description: PFC CS7 18 H 0910


| Dataset: | F:IProjectsIPFAS.PRO\Results\180818M2\180818M2-CRV.qId |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

Name: 180818M2_11, Date: 18-Aug-2018, Time: 16:51:02, ID: ST180818M2-10 PFC CS7 18H0910, Description: PFC CS7 18 H 0910


F24:MRM of 2 channels,ES$427.1>80$ $2.272 \mathrm{e}+006$





## 13C4-PFHpA



## L-PFHxS

F18:MRM of 2 channels,ES$398.9>79.6$
$3.100 \mathrm{e}+006$






F21:MRM of 2 channels,ES-
412.9 > 169 $1.378 \mathrm{e}+007$





F35:MRM of 1 channel, ES-



F27:MRM of 2 channels,ES$463.0>219.0$


13C5-PFNA
F28:MRM of 1 channel,ES$468.2>422.9$


| Dataset: | F:IProjects\PFAS.PRO\Results\180818M2\180818M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 11:01:28 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 11:33:46 Pacific Daylight Time |

Name: 180818M2_11, Date: 18-Aug-2018, Time: 16:51:02, ID: ST180818M2-10 PFC CS7 18H0910, Description: PFC CS7 18 H 0910


F30:MRM of 2 channels,ES-
$498>169$
$3.128 \mathrm{e}+005$






## 13C8-PFOS

F35:MRM of 1 channel,ES-
$507.0>79.9$



F37:MRM of 2 channels,ES-
$513>219$
$7.336 \mathrm{e}+006$


## 13C2-PFDA

F38:MRM of 1 channel,ES-
$515.1>469.9$



## 13C2-8:2 FTS

F43:MRM of 1 channel,ES-



F45:MRM of 2 channels,ES$\begin{array}{rr} \\ 100 & 2.450 \mathrm{e}+006\end{array}$



F35:MRM of 1 channel,ES-
$507.0>79.9$
$1.289 \mathrm{e}+005$


Dataset: F:IProjects\PFAS.PRO\Results\180818M21180818M2-CRV.qld

Last Altered: $\quad$ Sunday, August 19, 2018 11:01:28 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 11:33:46 Pacific Daylight Time

Name: 180818M2_11, Date: 18-Aug-2018, Time: 16:51:02, ID: ST180818M2-10 PFC CS7 18H0910, Description: PFC CS7 18 H 0910

## L-EtFOSAA

F51:MRM of 2 channels,ES-
100







F53:MRM of 2 channels,ES-


13C8-PFOS
F35:MRM of 1 channel,ES-
$507.0>79.9$








PFTrDA
F60:MRM of 2 channels,ES$662.9>618.9$ $4.149 \mathrm{e}+007$


F60:MRM of 2 channels,ES$662.9>319$ $1.324 e+006$


13C2-PFDoA
F55:MRM of 2 channels,ES$615.0>569.7$ $8.866 \mathrm{e}+005$

## Name: 180818M2_11, Date: 18-Aug-2018, Time: 16:51:02, ID: ST180818M2-10 PFC CS7 18H0910, Description: PFC CS7 18 H 0910



## Name: 180818M2_11, Date: 18-Aug-2018, Time: 16:51:02, ID: ST180818M2-10 PFC CS7 18H0910, Description: PFC CS7 18 H 0910



## 13C6-PFDA

F40:MRM of 1 channel,ES-




13C7-PFUdA
F49:MRM of 1 channel,ES570.1 > 524.8 $9.345 \mathrm{e}+005$





Name: 180818M2_13, Date: 18-Aug-2018, Time: 17:12:30, ID: ICV180818M2-1 PFC 537 ICV 18H0911, Description: PFC 537 ICV 18 H 0911


## Last Altered:

Sunday, August 19, 2018 12:36:25 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 12:36:28 Pacific Daylight Time

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$$

## Name: 180818M2_13, Date: 18-Aug-2018, Time: 17:12:30, ID: ICV180818M2-1 PFC 537 ICV 18H0911, Description: PFC 537 ICV 18 H 0911



| Quantify Sample Report Vista Analytical Laboratory |  | MassLynx MassLynx V4.1 SCN945 SCN960 | 9 of 9 |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Dataset: | F:IProjects | S.PROIResultsl180818M2\180818M2-ICV. qld |  |
| Last Altered | Sunday, Au | 19, 2018 12:36:25 Pacific Daylight Time |  |
| Printed: | Sunday, Au | 19, 2018 12:36:28 Pacific Daylight Time |  |

Name: 180818M2_13, Date: 18-Aug-2018, Time: 17:12:30, ID: ICV180818M2-1 PFC 537 ICV 18H0911, Description: PFC 537 ICV 18H0911

Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-ICV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 12:36:25 Pacific Daylight Time
Printed: $\quad$ Sunday, August 19, 2018 12:36:28 Pacific Daylight Time

## Method: F:IProjectsIPFAS.PRO\MethDBIPFAS_FULL_80C_081818.mdb 19 Aug 2018 11:58:52

## Calibration: F:IProjectsIPFAS.PROICurveDBIC18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_13, Date: 18-Aug-2018, Time: 17:12:30, ID: ICV180818M2-1 PFC 537 ICV 18H0911, Description: PFC 537 ICV $18 H 0911$



Work Order 1802055




F7:MRM of 2 channels, ES-









F15:MRM of 2 channels,ES-


13C3-PFBS
F8:MRM of 1 channel,ES-
$302 .>98.8$


Page 346 of 364

| Dataset: | F:\Projects\PFAS.PRO\Results\180818M21180818M2-ICV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 12:36:25 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 12:36:28 Pacific Daylight Time |

Name: 180818M2_13, Date: 18-Aug-2018, Time: 17:12:30, ID: ICV180818M2-1 PFC 537 ICV 18H0911, Description: PFC 537 ICV 18 H 0911


F24:MRM of 2 channels,ES-


## 13C2-6:2 FTS





## 13C4-PFHpA

F17:MRM of 1 channel,ES-
$367.2>321.8$


## 1802-PFHxS




F21:MRM of 2 channels, ES-




13C8-PFOS
F35:MRM of 1 channel,ES-
$507.0>79.9$
100

## 13C5-PFNA


Dataset: $\quad$ F:IProjects\PFAS.PRO\Results\180818M2\180818M2-ICV.qld

Last Altered: $\quad$ Sunday, August 19, 2018 12:36:25 Pacific Daylight Time
Printed: Sunday, August 19, 2018 12:36:28 Pacific Daylight Time

Name: 180818M2_13, Date: 18-Aug-2018, Time: 17:12:30, ID: ICV180818M2-1 PFC 537 ICV 18H0911, Description: PFC 537 ICV 18 H 0911

L-PFOS
F32:MRM of 2 channels,ES-
$498.9>79.9$
100



F37:MRM of 2 channels, ES-


13C8-PFOS
F35:MRM of 1 channel,ES-
$507.0>79.9$
$2.663 \mathrm{e}+005$



F42:MRM of 2 channels,ES- $\begin{array}{r}527>80 \\ 1.059 \mathrm{e}+005\end{array}$


13C2-8:2 FTS
F43:MRM of 1 channel,ES-
$529.1>508.7$
$\begin{array}{r}529.1>508.7 \\ 100 \\ \hline\end{array}$



F48.MRM of 2 channels,ES-
$570 .>512$

d3-N-MeFOSAA
F50:MRM of 1 channel,ES$573.3>419$


| Dataset: | F:IProjects\PFAS.PROIResults\180818M21180818M2-ICV.qld |
| :--- | :--- |
| Last Altered: | Sunday, August 19, 2018 12:36:25 Pacific Daylight Time |
| Printed: | Sunday, August 19, 2018 12:36:28 Pacific Daylight Time |

Name: 180818M2_13, Date: 18-Aug-2018, Time: 17:12:30, ID: ICV180818M2-1 PFC 537 ICV 18H0911, Description: PFC 537 ICV $18 H 0911$


F51:MRM of 2 channels,ES$584.1>526$
$2.579 \mathrm{e}+005$ 100

## d5-N-EtFOSAA

F52:MRM of 1 channel,ES-
$589.3>419$
$4.949 \mathrm{e}+005$

| PFDOA |  |
| :--- | ---: |
| F54:MRM of 4 channels,ES- |  |
| $612.9>569.0$ |  |
| 1007 | $1.548 \mathrm{e}+006$ |



## 13C2-PFDoA

F55:MRM of 2 channels,ES-
$615.0>569.7$
$100 \quad 1.822 \mathrm{e}+006$
PFDS
F53:MRM of 2 channels,ES-
$598.8>79.9$
$2.064 \mathrm{e}+005$





13C2-PFUdA d3-N-MeFOSA





13C2-PFDoA


## Vista Analytical Laboratory

Dataset: F:IProjects\PFAS.PRO\Results\180818M2\180818M2-ICV.qld
Last Altered: $\quad$ Sunday, August 19, 2018 12:36:25 Pacific Daylight Time
Printed:
Sunday, August 19, 2018 12:36:28 Pacific Daylight Time

Name: 180818M2_13, Date: 18-Aug-2018, Time: 17:12:30, ID: ICV180818M2-1 PFC 537 ICV 18H0911, Description: PFC 537 ICV 18 H0911


## 13C2-PFTeDA

F62:MRM of 2 channels,ES$714.8>669.6$ $1.356 \mathrm{e}+006$



F41:MRM of 2 channels,ES-
$526.1>219$

d5-N-ETFOSA
F44:MRM of 1 channel,ES $531.1>168.9$ $1.514 e+006$



## 13C2-PFHxDA

F64:MRM of 1 channel,ES F64:MRM of 1 channel,ES
$815>769.7$


## 13C2-PFHxDA






d9-N-EtFOSE

$$
\begin{array}{r}
\text { F59:MRM of } 1 \text { channel,ES- } \\
639.2>58.8
\end{array}
$$

 Sunday, August 19, 2018 12:36:28 Pacific Daylight Time

Name: 180818M2_13, Date: 18-Aug-2018, Time: 17:12:30, ID: ICV180818M2-1 PFC 537 ICV 18H0911, Description: PFC 537 ICV 18 H 0911


## 13C6-PFDA

F40:MRM of 1 channel,ES$519.1>473.7$
13C5-PFHxA
F11:MRM of 1 channel,ES-
$318>272.9$
$1.290 \mathrm{e}^{2} 006$


13C7-PFUdA





$$
\begin{array}{r}
\text { F49:MRM of } 1 \text { channel,ES- } \\
570.1>524.8 \\
1.961 \mathrm{e}+006
\end{array}
$$

| Dataset: | Untitled |
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|  |  |
| Last Altered: | Monday, August 20, 2018 16:36:38 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 16:36:42 Pacific Daylight Time |

## \section*{Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_081818.mdb 20 Aug 2018 15:27:57} <br> Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_08-18-18.cdb 19 Aug 2018 12:26:56

Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA


## 13C3-PFBA

F3:MRM of 1 channel,ES$216.1>171.8$



## 13C3-PFPeA

F6:MRM of 1 channel,ES-
$266 .>221.8$


PFBS


13C3-PFBS


## 4:2 FTS




13C2-4:2 FTS



| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Monday, August 20, 2018 16:36:38 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 16:36:42 Pacific Daylight Time |

## Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA



13C2-6:2 FTS



F18:MRM of 2 channels,ES-


## 1802-PFHxS




13C2-PFOA



| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Monday, August 20, 2018 16:36:38 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 16:36:42 Pacific Daylight Time |

Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA

## PFOSA <br> F30:MRM of 2 channels,ES- <br> 

F30:MRM of 2 channels,ES$498>169$ $1.000 \mathrm{e}-003$
$100^{-} 1.000 \mathrm{e}-003$

## 13C8-PFOSA

F34:MRM of 1 channel,ES - $\quad 506.1>77.7$



F32:MRM of 2 channels,ES-


13C8-PFOS


PFDA
F37:MRM of 2 channels,ES- $\begin{array}{r}513>468.8 \\ 7.144 \mathrm{e}+002\end{array}$
F37:MRM of 2 channels,ES


## 13C2-PFDA




13C2-8:2 FTS


## PFNS





13C8-PFOS
F35:MRM of 1 channel,ES-
$507.0>79.9$


d3-N-MeFOSAA


| Dataset: | Untitled |
| :--- | :--- |
|  |  |
| Last Altered: | Monday, August 20, 2018 16:36:38 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 16:36:42 Pacific Daylight Time |

Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA


F51:MRM of 2 channels,ES $584.1>526$


## d5-N-EtFOSAA




13C8-PFOS




F46:MRM of 2 channels,ES-



F36:MRM of 2 channels,ES-

d3-N-MeFOSA



F60:MRM of 2 channels,ES-
$662.9>319$


13C2-PFDoA


## Dataset: Untitled

Last Altered: Monday, August 20, 2018 16:36:38 Pacific Daylight Time
Printed:
Monday, August 20, 2018 16:36:42 Pacific Daylight Time

## Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA



F61:MRM of 2 channels,ES-


## 13C2-PFTeDA



F41:MRM of 2 channels,ES-

d5-N-ETFOSA


13C2-PFHxDA


13C2-PFHxDA


d7-N-MeFOSE


d9-N-EtFOSE


| Dataset: | Untitled |
| :--- | :--- |
|  |  |
| Last Altered: | Monday, August 20, 2018 16:36:38 Pacific Daylight Time |
| Printed: | Monday, August 20, 2018 16:36:42 Pacific Daylight Time |

Name: 180818M2_12, Date: 18-Aug-2018, Time: 17:01:48, ID: IPA, Description: IPA


## 13C6-PFDA







Tune Checks

| Calibration Verification Report - MS1 Static | Tune cheek ory |  |
| :--- | :--- | :--- |
| Printed: | Sat Aug 18 14:46:34 2018 | $20180 \% 16$ |

Data file: STATMS1V-Calibrated

Printed:
Sat Aug 18 14:47:43 2018

Data file: SCNMS1V - Calibrated
23 matches of 23 tested references


Reference: c:Imasslynx\refIESI Calibration TQ ResCal.ref
Mean residual $=0.0877 \mathrm{amu}$


## Printed: $\quad$ Sat Aug 18 14:48:54 2018

Data file: FASTMS1V - Calibrated


Reference: c:Imasslynx\reflESI Calibration TQ ResCal.ref
Mean residual $=0.05 \mathrm{amu}$


## Printed: <br> Sat Aug 18 14:50:02 2018

Data file: STATMS2V-Calibrated
Reference: c:Imasslynx\refIESI Calibration TQ ResCal.ref

$$
\text { Mean residual }=0.0329 \mathrm{amu}
$$



Printed:
Sat Aug 18 14:51:11 2018

Data file: SCNMS2V - Calibrated 23 matches of 23 tested references


Calibration Verification Report - MS2 Scan Speed Compensation
Printed: $\quad$ Sat Aug 18 14:52:37 2018

Data file: FASTMS2V - Calibrated 21 matches of 23 tested references
Reference: c:Imasslynx\reflESI Calibration TQ ResCal.ref
Mean residual $=0.0855 \mathrm{amu}$

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"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","","","," ","","","","","",",""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","375-85-9","PERFLUOROHEPTANOIC
ACID
(PFHPA)","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","","","","" ""","",","","","","
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" """ ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","","","","", "","","",","","",""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","","","" "" "" "" "" "" "" "" ""
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"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","2355-31-
9","MeFOSAA","","","TRḠ","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","",""," " "", "" "" " "" "" "" " "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","","", "" "" "" "" "" "" "" "" """
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","","",""," ","","","","","","",""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"Clarks-DW-072518","537 MOD","08/18/18","18:49","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00140","0.00204","0.00408","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C3-PFBA","13C3-
PFBA","91.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","91.2","91.2","","","","","","50","150","", "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C3-PFPeA","13C3-
PFPeA","123","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","123","123","","","","","","50","150",""," " "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C3-PFBS","13C3-
PFBS","135","","IS","Yes","Y","","Y","","",","PCT_REC","","","",","100","135","135","","","","","","50","150","","" ""","
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C2-PFHxA","13C2-
PFHxA","94.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","94.4","94.4","","","","","","50","150"," " "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C4-PFHpA","13C4-
PFHpA","90.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","90.1","90.1","","","","","","50","150"," " "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","18O2-PFHxS","18O2-
PFHxS","91.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","91.8","91.8","","","","","","50","150"," " "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C2-PFOA","13C2-
PFOA","91.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","91.0","91.0","","","","","","50","150","" "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C5-PFNA","13C5-
PFNA","90.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","90.9","90.9","","","","","","50","150","" "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C8-PFOSA","13C8-
PFOSA","51.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","51.2","51.2","","","","","","50","150"," " "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C8-PFOS","13C8-
PFOS","92.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","92.2","92.2","","","","","","50","150","", " " " " ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C2-PFDA","13C2-
PFDA","76.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","76.9","76.9","","","","","","50","150","" "" "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","70.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.5","70.5","","","","","","50","15 0","","","",""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","74.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","74.7","74.7","","","","","","50","150
" "" " " " "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C2-PFUnA","13C2-
PFUnA","75.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","75.5","75.5","","","","","","50","150","
" $1 / 7$ "r" 17
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C2-PFDoA","13C2-
PFDoA","76.1","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","76.1","76.1","","",","","","50","150"," " "", "" ""
"Clarks-DW-072518","537_MOD","08/18/18","18:49","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","73.6","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","73.6","73.6","","",","","","50","150" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","375-22-
4","PFBA","",",","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","",","","","",","","",""," " "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","2706-90-
3","PFPeA","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","",","","","","",","","", "" "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","375-73-
5","PFBS","",",","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","",","","",","","",",""," " "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID
(PFHXA)","",",","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","",","","","",","",""," " "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","375-85-
9","PERFLUOROHEPTANOIC ĀCID
(PFHPA)","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","","",","","","","","","" "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","355-464","PERFLUOROHEXANESULF̄ONIC ACID
(PFHXS)","",",",TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","",","","","",","","","" """,","","","","",""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)",","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","",","","",","","","","","", "" "" "" "", "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","375-95-1","PERFLUORONONANOIC ACID
(PFNA)","",",","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","","",","","","",","","", "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","754-91-
6","PFOSA","",",","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","",","","",","","","" "" "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","",",",TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","",","","","",","","",","","","",""," " """ """ ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","","",","","","",","","", "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","2355-31-
9","MeFOSAA",","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L",","","","",","",""," ","","","","","",","","",""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","2991-50-
6","EtFOSAA","",","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","","",","","",","", "" "" "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","2058-94-

8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","307-55-

## 1","PERFLUORODODECANOIC ACID

(PFDOA)","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","","","","","",","",""," " "" " " "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","","","","","","","","

"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00416","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C3-PFBA","13C3-
PFBA","93.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","93.6","93.6","","","","","","50","150","", " " "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C3-PFPeA","13C3-
PFPeA","124","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","124","124","","","","","","50","150",""," " "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C3-PFBS","13C3-
PFBS","151","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","151","151","","","","","","50","150","", "*" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C2-PFHxA","13C2-
PFHxA","91.0","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","91.0","91.0","","","","","","50","150"," " "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C4-PFHpA","13C4-
PFHpA","88.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","88.3","88.3","","","","",","50","150"," " "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","18O2-PFHxS","18O2-
PFHxS","92.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","92.5","92.5","","","","","","50","150"," " "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C2-PFOA","13C2-
PFOA","92.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","92.1","92.1","","","","","","50","150","" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C5-PFNA","13C5-
PFNA","83.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","83.7","83.7","","","","","","50","150","" """"","
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C8-PFOSA","13C8-
PFOSA","46.4","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","46.4","46.4","","","","","","50","150 " "" "*" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C8-PFOS","13C8-
PFOS","94.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","94.6","94.6","","","","","","50","150","", "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C2-PFDA","13C2-
PFDA","70.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.0","70.0","","","","","","50","150","" "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","72.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","72.6","72.6","","","","","","50","15 0","","","",""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","d5-EtFOSAA","d5EtFOSAA","78.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","78.2","78.2","","","","","","50","150

"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C2-PFUnA","13C2-
PFUnA","73.7","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","73.7","73.7","","","","","","50","150"," " "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C2-PFDoA","13C2-
PFDoA","77.6","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","77.6","77.6","","","","","","50","150"," " "" "" ""
"Shop Pasture-DW-072518","537_MOD","08/18/18","19:10","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","84.6","","IS","Yes","Ȳ","","Y","","","","PCT_REC","","","",","100","84.6","84.6","","","","","","50","150" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","375-22-
4","PFBA","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","","","",""," ","","","","","","","
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","2706-90-
3","PFPeA","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID
(PFHXA)","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID
(PFHPA)","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","","","","","" "" "" "" " " " "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","","","","","", "" "" "" "" " " " " " "
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","375-95-1","PERFLUORONONANOIC ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","","","","" "" "" "" "" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","","","","","","","",""," ","","",""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" " "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","","","",""," ","","","","","","","","",""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","2991-50-

6","EtFOSAA","",",",TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","",","","","",","",

"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","2058-94-
8","PERFLUOROUNDECANOIC ACID
(PFUNA)","",",","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","","",","","","","," " "" "" "" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","335-77-
3","PFDS","",",","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","",","","","","","",""," " "" "" "" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","",",","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","",","","","","",",""," " "" "" "" "" "" "" ""
"Welder HQ,-D̉W-072518","537_MOD","08/18/18","19:31","N","NA","000","72629-94-
8","PFTrDA",",",","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","",","","","",","",""," " "" "" "" "" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00143","0.00208","0.00416","UG_L","UG_L","","","",","","","",""," " "" "" "" "" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C3-PFBA","13C3-
PFBA","93.8","","IS","Yes","Y","","Y",","","","PCT_REC","","",","","100","93.8","93.8","",","","",","50","150","", "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C3-PFPeA","13C3-
PFPeA","123","","IS","Yes","Y","","Y","","",","PCT_REC","","",","","100","123","123",","","",","","50","150",""," " "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C3-PFBS","13C3-
PFBS","150","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","150","150","",","","",","50","150","","" ""","
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C2-PFHxA","13C2-
PFHxA","92.8","","IS","Yes","Y",","Y","",","","PCT_REC","","",","","100","92.8","92.8","",","","","","50","150"," " "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C4-PFHpA","13C4-
PFHpA","89.1","","IS","Yes","Y","","Y","",","","PCT_REC","","",","","100","89.1","89.1","",","","",","50","150"," " "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","18O2-PFHxS","18O2-
PFHxS","92.3","","IS","Yes","Y","","Y","",","","PCT_REC",","","","","100","92.3","92.3","",","","",","50","150"," " "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C2-PFOA","13C2-
PFOA","84.9","","IS","Yes","Y","","Y","","",",",PCT_REC","","","","","100","84.9","84.9","","","",","","50","150","" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C5-PFNA","13C5-
PFNA","84.2","","IS","Yes","Y","","Y","","",","PCT_REC","",","","","100","84.2","84.2","","","",","","50","150","" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C8-PFOSA","13C8-
PFOSA","50.3","","IS","Yes","Y","","Y","","",","PCT_REC","",","","","100","50.3","50.3","",","","",","50","150"," ","","""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C8-PFOS","13C8-
PFOS","95.4","","IS","Yes","Y","","Y","",","","PCT_REC","","",","","100","95.4","95.4","",","","","","50","150","", "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C2-PFDA","13C2-
PFDA","76.3","","IS","Yes","Y","","Y","","",",",PCT_REC","","","","","100","76.3","76.3","","","",","","50","150","" ,"",",""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","70.4",","IS","Yes","Y","","Y","","",","PCT_REC","","",","","100","70.4","70.4","","",","","","50","15

O"', "'" "'" "'" "'"
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","80.9","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","80.9","80.9","","","","","","50","150
" "" "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C2-PFUnA","13C2-
PFUnA","75.8","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","75.8","75.8","","","","","","50","150"," " "" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C2-PFDoA","13C2-
PFDoA","79.6","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","79.6","79.6","","","","","","50","150"," ","" "" ""
"Welder HQ-DW-072518","537_MOD","08/18/18","19:31","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","76.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","76.2","76.2","","","",","","50","150" "" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","375-22-
4","PFBA","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","2706-90-
3","PFPeA","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" " " " "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID
(PFHXA)","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","",""," " "" "" "" " " " " " " " ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","375-85-
9","PERFLUOROHEPTANOIC ĀCID
(PFHPA)","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","","","" ","",", "n "nn",
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","","","",

"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","375-95-1","PERFLUORONONANOIC ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" " "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","","" "" "" "" "" "" "" "" ""
"Lupes House-DW’-072518","537_MOD","08/18/18","19:53","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTĀNESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","","","","","",""," " "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","2355-31-

9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" " "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","", "" "" "" "" "" "" " "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","2058-94-
8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","","","

"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00143","0.00209","0.00418","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C3-PFBA","13C3-
PFBA","95.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","95.7","95.7","","","","","","50","150","", "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C3-PFPeA","13C3-
PFPeA","122","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","122","122","","","","","","50","150",""," " "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C3-PFBS","13C3-
PFBS","136","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","136","136","","","","","","50","150","","" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C2-PFHxA","13C2-
PFHxA","93.1","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","93.1","93.1","","","","","","50","150"," " "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C4-PFHpA","13C4-
PFHpA","85.9","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","85.9","85.9","","","","",","50","150"," " "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","18O2-PFHxS","18O2-
PFHxS","92.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","92.7","92.7","","","","","","50","150"," " "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C2-PFOA","13C2-
PFOA","91.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","91.3","91.3","","","","","","50","150","" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C5-PFNA","13C5-
PFNA","88.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","88.8","88.8","","","",","","50","150","" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C8-PFOSA","13C8-
PFOSA","46.9","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","46.9","46.9","","","","","","50","150 " "" "*" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C8-PFOS","13C8-
PFOS","96.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","96.0","96.0","","","","","","50","150","", "","",""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C2-PFDA","13C2-
PFDA","75.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","75.2","75.2","","","","","","50","150",""
" 17 " 17 ll "
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","63.7","","IS","Yes","Y","","Y","","",","PCT_REC","","",","","100","63.7","63.7","","","",","","50","15
0","","","",""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","75.2","","IS","Yes","Y","","Y","",","","PCT_REC",","","",","100","75.2","75.2","",","","","","50","150
" "" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C2-PFUnA","13C2-
PFUnA","75.4","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","75.4","75.4","","",","","","50","150","
" "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C2-PFDoA","13C2-
PFDoA","75.5","","IS","Yes","Y",","Y","",","","PCT_REC","","",","","100","75.5","75.5","",","","","","50","150"," " "" "" ""
"Lupes House-DW-072518","537_MOD","08/18/18","19:53","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","69.8","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","69.8","69.8","",","","",","50","150" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","375-22-
4","PFBA","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","",","",","","",","",""," ","","","","","","" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","2706-90-
3","PFPeA",",",","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","",","","","",","","","", "" "" "" "" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","","",","","","",",""," ","","","","","",",""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","307-24-4","PERFLUOROHEXANOIC
ACID
(PFHXA)","",",","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","",","","","","",",""," " "" "" "" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID
(PFHPA)","",","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","",","","","",","","","" "" "" "" """ "" "" ""
"Charlies-DẂ-072518","537_MOD","08/18/18","20:14","N","NA","000","355-46-
4","PERFLUOROHEXANES̄ULFONIC ACID
(PFHXS)","",",",TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","",","","","",","","","" "" "" "" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","335-67-1","PERFLUOROOCTANOIC
ACID
(PFOA)","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","","",","","","",","","", "" "" "" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","375-95-1","PERFLUORONONANOIC
ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","","","",","","","",","", "" "" "" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L",","","","",","","","","" "" "" "" "" "" "" """ ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","1763-23-
1","HEPTADECAFLUOROĀCTANESULFONIC ACID SOLUTION
","",",",TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","",","","","",","","","",","","",""," ","","",""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","","","","","","","", "" "" "" "" " " " " " "" "" " "
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","","","","","","","",""," ","","","" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00141","0.00205","0.00411","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C3-PFBA","13C3-
PFBA","94.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","94.5","94.5","","","","","","50","150","", "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C3-PFPeA","13C3-
PFPeA","122","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","122","122","","","","","","50","150",""," " "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C3-PFBS","13C3-
PFBS","140","","IS","Yes","Ȳ","","Y","","","","PCT_REC","","","","","100","140","140","","","","",","50","150","","" ,"",""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C2-PFHxA","13C2-
PFHxA","93.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","93.3","93.3","","","","",","50","150"," " "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C4-PFHpA","13C4-
PFHpA","90.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","90.5","90.5","","","","","","50","150"," " "" " " ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","18O2-PFHxS","18O2-
PFHxS","95.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","95.5","95.5","","","","","","50","150"," " "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C2-PFOA","13C2-
PFOA","89.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","89.5","89.5","","","","","","50","150","" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C5-PFNA","13C5-
PFNA","83.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","83.6","83.6","","","","","","50","150","" """,",""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C8-PFOSA","13C8-
PFOSA","39.6","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","39.6","39.6","","","","","","50","150
","","*","",""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C8-PFOS","13C8-
PFOS","90.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","90.6","90.6","","","","","","50","150","",
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C2-PFDA","13C2-
PFDA","75.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","75.2","75.2","","","","","","50","150","" "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","69.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","69.7","69.7","","","","","","50","15
0","","","",""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","71.8","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","71.8","71.8","","","","","","50","150
","","","",""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C2-PFUnA","13C2-
PFUnA","71.6","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","71.6","71.6","","","","","","50","150"," " "" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C2-PFDoA","13C2-
PFDoA","76.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","76.5","76.5","","","","","","50","150"," ","" "" ""
"Charlies-DW-072518","537_MOD","08/18/18","20:14","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","80.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","80.8","80.8","","","","","","50","150" "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","375-22-
4","PFBA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," ","" "" "" "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","2706-90-
3","PFPeA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," ","","","","" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID
(PFHXA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID
(PFHPA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","" "" """ "", "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","375-95-1","PERFLUORONONANOIC ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" " "" ""
"Hortzendorf-DW-072518","537 MOD","08/18/18","20:36","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","" ,"","","","","","","",""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","","","","","
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","", "" "" "" "" " "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","", "" "" "" "" " " " " " "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","2058-94-
8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," "," "" "" "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," " "" "" "" " " "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C3-PFBA","13C3-
PFBA","93.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","93.1","93.1","","","","","","50","150","", "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C3-PFPeA","13C3-
PFPeA","122","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","122","122","","","","","","50","150",""," ","","
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C3-PFBS","13C3-
PFBS","140","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","140","140","","","","","","50","150","","" ""","
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C2-PFHxA","13C2-
PFHxA","94.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","94.7","94.7","","","","","","50","150"," " "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C4-PFHpA","13C4-
PFHpA","90.6","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","90.6","90.6","","","","","","50","150"," " "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","18O2-PFHxS","18O2-
PFHxS","95.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","95.3","95.3","","","","","","50","150"," " "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C2-PFOA","13C2-
PFOA","87.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","87.9","87.9","","","",","","50","150","" ""","","
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C5-PFNA","13C5-
PFNA","80.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","80.7","80.7","","","",","","50","150","" """ "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C8-PFOSA","13C8-
PFOSA","57.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","57.2","57.2","","","","","","50","150","

"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C8-PFOS","13C8-
PFOS","96.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","96.5","96.5","","","","","","50","150","", "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C2-PFDA","13C2-
PFDA","80.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","80.4","80.4","","","","","","50","150","" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","73.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","73.6","73.6","","","","","","50","15 0","","","",""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","74.5","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","74.5","74.5","","","","","","50","150 " "" "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C2-PFUnA","13C2-
PFUnA","81.9","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","81.9","81.9","","","",","","50","150"," " "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C2-PFDoA","13C2-
PFDoA","80.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","80.6","80.6","","","","","","50","150"," " "" "" ""
"Hortzendorf-DW-072518","537_MOD","08/18/18","20:36","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","82.3","","IS","Yes","Y","","Y","","",","PCT_REC","","","",","100","82.3","82.3","","","",","","50","150" "","",",""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","375-22-
4","PFBA","0.0925","","TRG","Yes","Y","","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","",""," ","","","","","","","","","
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","2706-90-
3","PFPeA","0.300","","TRG","Yes","Y","","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","","" "" "" "" "" "" "" "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","375-73-
5","PFBS","0.0382","","TRG","Yes","Y","","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","","" "" "" "" "" "" "" "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","307-24-
4","PERFLUOROHEXANOIC ACID
(PFHXA)","0.390","","TRG","Yes","Y","","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","",","","", "" "" "" "" " " " " " " " " " "
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","375-85-
9","PERFLUOROHEPTANOIC ACID
(PFHPA)","0.174","","TRG","Yes","Y","","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","",""," ","","","","","","","",""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","0.916","","TRG","Yes","Y","","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","",""," ","","","", "","","" "", ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","335-67-
1","PERFLUOROOCTANOIC ACID
(PFOA)","0.859","","TRG","Yes","Y","","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","","","" "" "" "" "" "" "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","375-95-
1","PERFLUORONONANOIC ACID
(PFNA)","0.0264","","TRG","Yes","Y","","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","",""," ","","","","","","","","
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","754-91-
6","PFOSA","0.0247","","TRG","Yes","Y","","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","",

"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","1.47","","TRG","Yes","Y","","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","","","","","",""," " "" " " "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","335-76-
2","PERFLUORODECANOIC ACID
(PFDA)","0.00208","","TRG","Yes","Y","J","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","","", "" "" "" "" " " " "","" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","2058-94-
8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","","",""," ","","","","","","",""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","Ū","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","","",""," ","","",","","","","
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" " " " " ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00142","0.00207","0.00414","UG_L","UG_L","","","","","","","",""," ","","","","","" "","" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C3-PFBA","13C3-
PFBA","91.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","91.9","91.9","","","","","","50","150","", "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C3-PFPeA","13C3-
PFPeA","122","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","122","122","","","","","","50","150",""," " "","
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C3-PFBS","13C3-
PFBS","146","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","146","146","","","","","","50","150","","" ,"",""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C2-PFHxA","13C2-
PFHxA","94.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","94.5","94.5","","","","","","50","150"," " "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C4-PFHpA","13C4-
PFHpA","91.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","91.9","91.9","","","","",","50","150"," ","","" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","18O2-PFHxS","18O2-
PFHxS","90.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","90.9","90.9","","","","","","50","150"," ","","","
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C2-PFOA","13C2-
PFOA","89.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","89.7","89.7","","","","","","50","150","" ,"","",""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C5-PFNA","13C5-
PFNA","79.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","79.5","79.5","","","","","","50","150",""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C8-PFOSA","13C8-
PFOSA","45.2","","IS","Yes","Y","H","Y","","",","PCT_REC","","",","","100","45.2","45.2","","","",","","50","150 ","","*","","
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C8-PFOS","13C8-
PFOS","85.0","","IS","Yes","Y",",",Y","",","","PCT_REC","","",","","100","85.0","85.0","",","","","","50","150","", "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C2-PFDA","13C2-
PFDA","74.1","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","74.1","74.1","","","",","","50","150","" "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","69.8","","IS","Yes","Y",","Y","","",","PCT_REC","","",","","100","69.8","69.8","",","","","","50","15 0","","","",""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","72.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","72.8","72.8","",","","","","50","150
""" "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C2-PFUnA","13C2-
PFUnA","79.4","","IS","Yes","Y","","Y","",","","PCT REC","","","","","100","79.4","79.4","","",","","","50","150"," " "" "" ""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C2-PFDoA","13C2-
PFDoA","80.6","","IS","Yes","Y","","Y","",","","PCT_REC","","","","","100","80.6","80.6","","",","","","50","150","
","","",""
"Charlies Pasture-DW-072518","537_MOD","08/18/18","20:57","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","88.7","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","88.7","88.7","","","",","","50","150" "" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","375-22-
4","PFBA","",",","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","",","","",","","",""," ","","","","","","",""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","2706-90-
3","PFPeA","",",",TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","",","","","","","","", "" "" "" "" "" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","",","","","",",""," ","","","","","","",""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","307-24-
4","PERFLUOROHEXANOIC ACID
(PFHXA)","",",","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","",","","","",",""," " "" "" "" "" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","375-85-
9","PERFLUOROHEPTANOIC ACID
(PFHPA)","",","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","",","","","",","","","" "" "" "" "" "" " "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","",",",TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","",","","","",","","","" "" "" "" "" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","335-67-
1","PERFLUOROOCTANOIC ACID
(PFOA)",",",","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","",","","","",","","","","", "" "" "" "" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","375-95-
1","PERFLUORONONANOIC ACID
(PFNA)","",",","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","",","","","",","","",

"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","","","","","","","" "" "" "" "" "" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","","","","","","","","","","",""," " "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","335-76-
2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","","","","","","","","", "" "" "" "" " " " " " ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" " " " " " " ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","","","","","","", "" "" "" "" " "" "" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","2058-94-
8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","","","","","","",""," " "" " " " " " " " "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","307-55-
1","PERFLUORODODECANOIC ĀCID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","","","","","","",""," " "" "" "" " " " "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00144","0.00211","0.00422","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","13C3-PFBA","13C3-
PFBA","91.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","91.1","91.1","","","","","","50","150","", " " "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","13C3-PFPeA","13C3-
PFPeA","117","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","117","117","","","","","","50","150",""," ","",""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","13C3-PFBS","13C3-
PFBS","122","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","122","122","","","","","","50","150","","" ""","
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","13C2-PFHxA","13C2-
PFHxA","91.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","91.7","91.7","","","","",","50","150"," " "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","13C4-PFHpA","13C4-
PFHpA","82.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","82.8","82.8","","","","","","50","150"," " "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","18O2-PFHxS","18O2-
PFHxS","88.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","88.1","88.1","","","","","","50","150"," " "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","13C2-PFOA","13C2-
PFOA","88.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","88.2","88.2","","","","","","50","150",""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","13C5-PFNA","13C5-
PFNA","81.5","","IS","Yes","Y","","Y","","",","PCT_REC","","",","","100","81.5","81.5","","","",","","50","150","" "" "" ""
"Charlies Pasture-FB-072518","537 MOD","08/18/18","21:08","N","NA","000","13C8-PFOSA","13C8-
PFOSA","41.9","","IS","Yes","Y","H","Y","","",","PCT_REC","",","","","100","41.9","41.9","",","","",","50","150 " "" "*" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","13C8-PFOS","13C8-
PFOS","89.6","","IS","Yes","Y",","Y","",","","PCT_REC","","",","","100","89.6","89.6","",","","","","50","150","", "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","13C2-PFDA","13C2-
PFDA","65.5","","IS","Yes","Y","","Y","","",",",PCT_REC","","",","","100","65.5","65.5","","","",","","50","150","" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","61.4","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","61.4","61.4","","","",","","50","15
0","","","",""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","62.8","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","62.8","62.8","",","","","","50","150 " "" "" "" ""
"Charlies Pasture-FB-072518","537 MOD","08/18/18","21:08","N","NA","000","13C2-PFUnA","13C2-
PFUnA","68.0","","IS","Yes","Y","","Y","",","","PCT_REC","","","","","100","68.0","68.0","","",","","","50","150","
" "" "" ""
"Charlies Pasture-FB-072518","537_MOD","08/18/18","21:08","N","NA","000","13C2-PFDoA","13C2-
PFDoA","66.3","","IS","Yes","Y","","Y","",","","PCT_REC","","",","","100","66.3","66.3","","",","","","50","150"," " "" "" ""
"Charlies Pasture-FB-072518","537 MOD","08/18/18","21:08","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","74.7","","IS","Yes","Y","","Y","",","","PCT REC","",","","","100","74.7","74.7","","",","","","50","150" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","375-22-
4","PFBA","0.0474","","TRG","Yes","Y","","Y","0.00141","0.00206","0.00412","UG_L","UG_L","",","","","",",""," " "" "" "" "" "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","2706-90-
3","PFPeA","0.116",",","TRG","Yes","Y","","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","","",","","","" "" "" "" "" "" "" " "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","375-73-
5","PFBS","0.0249","","TRG","Yes","Y","","Y","0.00141","0.00206","0.00412","UG L","UG L","","","","","",","","" "" "" "" "" "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","307-24-
4","PERFLUOROHEXANOIC ACID
(PFHXA)","0.160","","TRG","Yes","Y","","Y","0.00141","0.00206","0.00412","UG_L","UG_L","",","","","",","","", "" "" "" "" "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","375-85-
9","PERFLUOROHEPTANOIC ACID
(PFHPA)","0.0531","","TRG","Yes","Y","","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","",","","","","","" "" "" "" "" "" "" "" "" "" , , , , , , , ,
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","0.166",",","TRG","Yes","Y","","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","",","","","",""," " "" "" "" "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","335-67-
1","PERFLUOROOCTANOIC ACID
(PFOA)","0.0609","","TRG","Yes","Y","","Y","0.00141","0.00206","0.00412","UG_L","UG_L","",","","",","","",""," ","","" "", "" "", "","",""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","375-95-

## 1","PERFLUORONONANOIC ACID

(PFNA)","0.00375","","TRG","Yes","Y","J","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00141","0.00206","0.00412","UG L","UG L","","","","","","","","","" "" "" "" "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","0.0592","","TRG","Yes","Y","","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","","","","","","","","",""," " "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","335-76-

## 2","PERFLUORODECANOIC ACID

(PFDA)","","","TRG","Yes","N","U","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","","","","","","", "" "" "" "" "" " "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","2058-94-
8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","","","","","","",""," ","","","","","","","
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","","","","",","",""," " "" "" "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","","","","","",""," "," "" "" "" "" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00141","0.00206","0.00412","UG_L","UG_L","","","","","","","",""," " "" "" "", "" "" "" " "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C3-PFBA","13C3-
PFBA","85.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","85.3","85.3","","","","","","50","150","", "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C3-PFPeA","13C3-
PFPeA","111","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","111","111","","","","","","50","150",""," " "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C3-PFBS","13C3-
PFBS","130","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","130","130","","","","","","50","150","","" ,"",""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C2-PFHxA","13C2-
PFHxA","84.1","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","84.1","84.1","","","","","","50","150"," ","","","
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C4-PFHpA","13C4-
PFHpA","81.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","81.9","81.9","","","","","","50","150"," ","","","
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","18O2-PFHxS","18O2-
PFHxS","81.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","81.9","81.9","","","","","","50","150","

"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C2-PFOA","13C2-
PFOA","83.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","83.6","83.6","","","","","","50","150",""
"" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C5-PFNA","13C5-
PFNA","78.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","78.5","78.5","","","",","","50","150",""
"" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C8-PFOSA","13C8-
PFOSA","45.8","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","45.8","45.8","","","","","","50","150
","","*" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C8-PFOS","13C8-
PFOS","83.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","83.2","83.2","","","","","","50","150","", "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C2-PFDA","13C2-
PFDA","68.5","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","68.5","68.5","","","",","","50","150","" "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","71.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","71.3","71.3","","","","","","50","15 0","","","",""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","72.0","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","72.0","72.0","","","","","","50","150
","","" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C2-PFUnA","13C2-
PFUnA","73.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","73.2","73.2","","","","","","50","150"," " "" "" ""
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C2-PFDoA","13C2-
PFDoA","71.3","","IS","Yes","Y","","Ȳ","","","","PCT_REC","","","","","100","71.3","71.3","","","","",","50","150","
","","","
"Shooting Range 1-DW-072518","537_MOD","08/18/18","21:40","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","81.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","81.2","81.2","","","","","","50","150" "" "" "",""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","375-22-
4","PFBA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," ","","","","","","",""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","2706-90-
3","PFPeA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","", "" "" "", "", "" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," ","","","","","","","
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","307-24-
4","PERFLUOROHEXANOIC ACID
(PFHXA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","375-85-
9","PERFLUOROHEPTANOIC ACID
(PFHPA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","" ,"","","","","","","'
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","335-67-
1","PERFLUOROOCTANOIC ACID
(PFOA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","375-95-
1","PERFLUORONONANOIC ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","", "" "" "" "" " "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""
"" "" "" "" "" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","","","",""," " "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","335-76-
2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","","","", "" "" "" "" " " " " " ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","",""," ","","","",", "","","","","
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","", "" "" "" " "" "" "" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","2058-94-
8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" " ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","","",""," " "" "", "", "" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00144","0.00210","0.00420","UG_L","UG_L","","","","","","","",""," "," "" "" "" "" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C3-PFBA","13C3-
PFBA","93.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","93.7","93.7","","","","","","50","150","", " " "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C3-PFPeA","13C3-
PFPeA","124","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","124","124","","","","","","50","150",""," ","",""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C3-PFBS","13C3-
PFBS","129","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","129","129","","","","","","50","150","","" "",""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C2-PFHxA","13C2-
PFHxA","94.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","94.3","94.3","","","","","","50","150"," ",""," ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C4-PFHpA","13C4-
PFHpA","87.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","87.5","87.5","","","","","","50","150","

"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","18O2-PFHxS","18O2-
PFHxS","92.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","92.9","92.9","","","","","","50","150"," " "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C2-PFOA","13C2-
PFOA","90.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","90.4","90.4","","","",","","50","150","" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C5-PFNA","13C5-
PFNA","82.3","","IS","Yes","Y","","Ȳ","","","","PCT_REC","","","","","100","82.3","82.3","","","","","","50","150","" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C8-PFOSA","13C8-
PFOSA","43.1","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","43.1","43.1","","","","","","50","150 " "" ""*" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C8-PFOS","13C8-
PFOS","97.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","97.8","97.8","","","","","","50","150","", "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C2-PFDA","13C2-
PFDA","71.7","","IS","Yes","Y","","Ȳ","","","","PCT REC","","","","","100","71.7","71.7","","","","","","50","150","" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","63.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","63.4","63.4","","","","","","50","15 0","","","",""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","67.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","67.6","67.6","","","","","","50","150 " "" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C2-PFUnA","13C2-
PFUnA","69.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.6","69.6","","","","",","50","150","
" "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C2-PFDoA","13C2-
PFDoA","69.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","69.3","69.3","","","","","","50","150"," " "" "" ""
"Shooting Range 1-FB-072518","537_MOD","08/18/18","21:51","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","71.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","71.6","71.6","","","","","","50","150" """," "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","375-22-
4","PFBA","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","",""," ","","","","","","",""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","2706-90-
3","PFPeA","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID
(PFHXA)","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","",""," ","","","",""""," ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID
(PFHPA)","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","","","",

"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","375-95-1","PERFLUORONONANOIC ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","","","",

"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","",""

"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","","","","","",""," " "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG L","UG L","","","","","","","","","","", "" "" "" "" " "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" "" ""
"DUP-1","537 MOD","08/18/18","22:02","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","", "" "" "" "" "" "" " " "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","","","

"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","","","","

"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","",""," " "" "" "" "" "" "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","","","","",""," " "" "" " "" "" "" " " " "" ""
"DUP-1","537 MOD","08/18/18","22:02","N","NA","000","13C3-PFBA","13C3-
PFBA","88.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","88.9","88.9","","","","","","50","150","", "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","13C3-PFPeA","13C3-
PFPeA","115","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","115","115","","","","",","50","150",""," " "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","13C3-PFBS","13C3-
PFBS","129","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","129","129","","","",","","50","150","","" ""","
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","13C2-PFHxA","13C2-
PFHxA","85.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","85.6","85.6","","","","","","50","150"," " "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","13C4-PFHpA","13C4-
PFHpA","83.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","83.1","83.1","","","","","","50","150"," " "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","18O2-PFHxS","18O2-
PFHxS","89.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","89.1","89.1","","","","","","50","150"," " "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","13C2-PFOA","13C2-

PFOA","94.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","94.6","94.6","","","","","","50","150","" "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","13C5-PFNA","13C5-
PFNA","81.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","81.6","81.6","","","","","","50","150","" "" "" ""
"DUP-1","537 MOD","08/18/18","22:02","N","NA","000","13C8-PFOSA","13C8-
PFOSA","23.8","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","23.8","23.8","","","","","","50","150 " "" "*" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","13C8-PFOS","13C8-
PFOS","84.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","84.8","84.8","","","","","","50","150","", "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","13C2-PFDA","13C2-
PFDA","70.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.9","70.9","","","","","","50","150","" "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","65.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","65.8","65.8","","","","","","50","15 0","","","",""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","68.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","68.1","68.1","","","","","","50","150 " "" "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","13C2-PFUnA","13C2-
PFUnA","67.0","","IS","Yes","Y","","Y","","",","PCT_REC","","",","","100","67.0","67.0","","","","",","50","150"," " "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","13C2-PFDoA","13C2-
PFDoA","69.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","69.7","69.7","","","","","","50","150"," " "" "" ""
"DUP-1","537_MOD","08/18/18","22:02","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","80.0","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","80.0","80.0","","","","","","50","150" "" "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","375-22-
4","PFBA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","2706-90-
3","PFPeA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","

"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","",""

"B8G0238-BLK1","537 MOD","08/18/18","18:38","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",

"B8 ${ }^{\circ}$ G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","",

"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","" ,"","","","","","","",""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","","","",""," " "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","", "" "" "" "" "" " " " "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC
ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","",","",""," ","",""," "", "", "",""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","",""," " "" "" "" "" " " "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","","","","",""," " "" "", "" "" "" "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","13C3-PFBA","13C3-
PFBA","89.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","89.2","89.2","","","","","","50","150","", "" "" ""
"B8G0238-BLK1","537 MOD","08/18/18","18:38","N","NA","000","13C3-PFPeA","13C3-
PFPeA","113","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","113","113","","","","","","50","150",""," " "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","13C3-PFBS","13C3-
PFBS","123","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","123","123","","","","","","50","150","","" ,"",""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","13C2-PFHxA","13C2-
PFHxA","87.3","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","87.3","87.3","","","","","","50","150"," "," "" " "
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","13C4-PFHpA","13C4-
PFHpA","85.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","85.0","85.0","","","","","","50","150"," " "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","18O2-PFHxS","18O2-
PFHxS","89.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","89.9","89.9","","","","","","50","150","
","","","
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","13C2-PFOA","13C2-
PFOA","86.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","86.0","86.0","","","","","","50","150","" ""","","
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","13C5-PFNA","13C5-

PFNA","81.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","81.9","81.9","","","","","","50","150",""

"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","13C8-PFOSA","13C8-
PFOSA","50.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","50.8","50.8","","","","","","50","150"," " "" "" ""
"B8G0238-BLK1","537 MOD","08/18/18","18:38","N","NA","000","13C8-PFOS","13C8-
PFOS","80.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","80.2","80.2","","","","","","50","150","", "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","13C2-PFDA","13C2-
PFDA","67.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","67.5","67.5","","","","","","50","150","" "'l" "'t "'"
"B8G0238-BLK1","537 MOD","08/18/18","18:38","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","64.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","64.5","64.5","","","","","","50","15 0","","" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","64.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","64.0","64.0","","","","","","50","150 " "" " "" "" ""
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","13C2-PFUnA","13C2-
PFUnA","69.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","69.9","69.9","","","","","","50","150"," " " " " " " " $" t$
"B8G0238-BLK1","537_MOD","08/18/18","18:38","N","NA","000","13C2-PFDoA","13C2-
PFDoA","66.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","66.9","66.9","","","","","","50","150"," " "" "" ""
"B8G0238-BLK1","537 MOD","08/18/18","18:38","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","66.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","66.0","66.0","","","","","","50","150" "" "" "" ""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","375-22-
4","PFBA","0.0368","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0. 0368","91.9","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","2706-90-
3","PFPeA","0.0385","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400"," 0.0385","96.1","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","375-73-
5","PFBS","0.0353","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0. 0353","88.2","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.0396","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0. 0396","99.0","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.0370","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0. 0370","92.6","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","0.0366","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0. 0366","91.5","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","0.0379","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0 379","94.7","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","0.0349","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0 349","87.1","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","754-91-
6","PFOSA","0.0378","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400"," 0.0378","94.6","","","","",","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","0.0403","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0403","10 1","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","0.0379","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0.0 379","94.7","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","2355-31-
9","MeFOSAA","0.0372","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","",","0.040 0","0.0372","92.9","","","","","","70","130","","","",""
"B8G0238-BS1","537 MOD","08/18/18","18:06","N","NA","000","2991-50-
6","EtFOSAA","0.0379","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400 ","0.0379","94.7","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","0.0377","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0. 0377","94.2","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","335-77-
3","PFDS","0.0368","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0. 0368","92.1","","","","","","60","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","0.0366","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400","0. 0366","91.6","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","72629-94-
8","PFTrDA","0.0376","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400", "0.0376","93.9","","","","","","60","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","376-06-
7","PFTeDA","0.0360","","TRG","Yes","Y","","Y","0.00137","0.00200","0.00400","UG_L","UG_L","","","","0.0400", "0.0360","89.9","","","","","","70","130","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C3-PFBA","13C3-
PFBA","90.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","90.9","90.9","","","","","","50","150","", "" "" ""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C3-PFPeA","13C3-
PFPeA","117","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","117","117","","","","","","50","150",""," ","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C3-PFBS","13C3-
PFBS","125","","IS","Yes","Y","","Y","","","","PCT REC","","",","","100","125","125","","","","","","50","150","","" """""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C2-PFHxA","13C2-
PFHxA","87.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","87.4","87.4","","","","",","50","150"," "," " "" ""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C4-PFHpA","13C4-
PFHpA","86.7","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","86.7","86.7","","","","","","50","150"," " "" "" ""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","18O2-PFHxS","18O2-
PFHxS","87.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","87.9","87.9","","","","","","50","150"," "," " " " ""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C2-PFOA","13C2-
PFOA","88.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","88.3","88.3","","","","","","50","150","" """," ""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C5-PFNA","13C5-
PFNA","89.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","89.4","89.4","","","","","","50","150","" ,"","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C8-PFOSA","13C8-
PFOSA","50.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","50.1","50.1","","","","","","50","150","
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C8-PFOS","13C8-
PFOS","83.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","83.6","83.6","","","","","","50","150","", "" "" ""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C2-PFDA","13C2-
PFDA","75.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","75.1","75.1","","","","","","50","150","" "" "" ""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","65.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","65.9","65.9","","","","","","50","15 0","","","",""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","67.1","","IS","Yes","Y","","Y","","","","PCT_REC","",","","","100","67.1","67.1","","","","","","50","150 " "" "" "" ""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C2-PFUnA","13C2-
PFUnA","72.8","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","72.8","72.8","","","","","","50","150"," " "" "" ""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C2-PFDoA","13C2-
PFDoA","71.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","71.7","71.7","","","","","","50","150"," " "" "" ""
"B8G0238-BS1","537_MOD","08/18/18","18:06","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","74.6","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","74.6","74.6","","","","",","50","150" "","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","375-22-
4","PFBA","0.0368","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0. 0368","90.7","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","2706-90-
3","PFPeA","0.0395","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402"," 0.0395","98.3","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","375-73-
5","PFBS","0.0368","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0. 0368","91.6","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.0393","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0. 0393","97.7","","","",","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.0383","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0. 0383","95.4","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","0.0363","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0. 0363","89.6","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","0.0399","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0.0 399","98.6","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","0.0406","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0.0 406","101","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","754-91-
6","PFOSA","0.0388","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402"," 0.0388","96.5","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","0.0384","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0.0384","95 .3","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","0.0392","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0.0 392","97.2","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","2355-31-
9","MeFOSAA","0.0370","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.040 2","0.0370","92.0","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","2991-50-
6","EtFOSAA","0.0386","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402 ","0.0386","96.1","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","0.0376","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0. 0376","93.3","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","335-77-
3","PFDS","0.0377","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0. 0377","93.9","","","","","","60","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","0.0389","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402","0. 0389","96.8","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","72629-94-
8","PFTrDA","0.0395","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402", "0.0395","98.3","","","","","","60","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","376-06-
7","PFTeDA","0.0390","","TRG","Yes","Y","","Y","0.00138","0.00201","0.00402","UG_L","UG_L","","","","0.0402", "0.0390","96.8","","","","","","70","130","","","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C3-PFBA","13C3-
PFBA","88.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","88.3","88.3","","","","","","50","150","", "" "" ""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C3-PFPeA","13C3-
PFPeA","117","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","117","117","","","","","","50","150",""," ","",""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C3-PFBS","13C3-
PFBS","133","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","133","133","","","","","","50","150","","" "" ""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C2-PFHxA","13C2-
PFHxA","87.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","87.2","87.2","","","","","","50","150"," " "" "" ""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C4-PFHpA","13C4-
PFHpA","86.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","86.0","86.0","","","","",","50","150"," ","","","
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","18O2-PFHxS","18O2-
PFHxS","93.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","93.7","93.7","","","","","","50","150"," " "" "" ""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C2-PFOA","13C2-
PFOA","83.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","83.4","83.4","","","","","","50","150","" "" "" ""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C5-PFNA","13C5-
PFNA","80.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","80.8","80.8","","","",","","50","150","" "" "" ""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C8-PFOSA","13C8-
PFOSA","55.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","55.3","55.3","","","",","","50","150"," ","","","
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C8-PFOS","13C8-
PFOS","86.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","86.1","86.1","","","","","","50","150","", "" "" ""
"B8G0238-MS1","537 MOD","08/18/18","18:16","N","NA","000","13C2-PFDA","13C2-
PFDA","77.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","77.2","77.2","","","","","","50","150","" "" "" ""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","71.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","71.2","71.2","","","","","","50","15 0","","","",""
"B8G0238-MS1","537 MOD","08/18/18","18:16","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","71.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","71.7","71.7","","","","","","50","150 " "" "" "" ""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C2-PFUnA","13C2-
PFUnA","73.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","73.9","73.9","","","","","","50","150"," " "" "" ""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C2-PFDoA","13C2-
PFDoA","74.9","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","74.9","74.9","","","","","","50","150"," " "" "" ""
"B8G0238-MS1","537_MOD","08/18/18","18:16","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","68.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","68.5","68.5","","","","","","50","150" "" "" "" ""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","375-22-
4","PFBA","0.0352","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0. 0352","85.7","0.0368","0.0407","0.0352","85.7","5.67","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","2706-90-
3","PFPeA","0.0377","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407"," 0.0377","92.5","0.0395","0.0407","0.0377","92.5","6.08","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","375-73-
5","PFBS","0.0341","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0. 0341","83.7","0.0368","0.0407","0.0341","83.7","9.01","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.0365","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0. 0365","89.6","0.0393","0.0407","0.0365","89.6","8.65","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.0377","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0. 0377","92.7","0.0383","0.0407","0.0377","92.7","2.87","70","130","30","","",""
"B8G0238-MSD1","537 MOD","08/18/18","18:27","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","0.0378","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0. 0378","92.1","0.0363","0.0407","0.0378","92.1","2.75","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","0.0356","","TR̄G","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0.0 356","86.7","0.0399","0.0407","0.0356","86.7","12.8","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","0.0346","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0.0 346","84.6","0.0406","0.0407","0.0346","84.6","17.7","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","754-91-
6","PFOSA","0.0373","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","",","0.0407"," 0.0373","91.7","0.0388","0.0407","0.0373","91.7","5.10","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","0.0369","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0.0369","90 .4","0.0384","0.0407","0.0369","90.4","5.28","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","0.0388","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0.0 388","95.0","0.0392","0.0407","0.0388","95.0","2.29","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","2355-31-

9","MeFOSAA","0.0380","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.040 7","0.0380","93.3","0.0370","0.0407","0.0380","93.3","1.40","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","2991-50-
6","EtFOSAA","0.0380","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407 ","0.0380","93.5","0.0386","0.0407","0.0380","93.5","2.74","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC
ACID
(PFUNA)","0.0358","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0. 0358","87.9","0.0376","0.0407","0.0358","87.9","5.96","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","335-77-
3","PFDS","0.0339","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0. 0339","83.4","0.0377","0.0407","0.0339","83.4","11.8","60","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","307-55-1","PERFLUORODODECANOIC
ACID
(PFDOA)","0.0349","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407","0. 0349","85.8","0.0389","0.0407","0.0349","85.8","12.0","70","130","30","","",""
"B8G0238-MSD1","537 MOD","08/18/18","18:27","N","NA","000","72629-94-
8","PFTrDA","0.0364","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407", "0.0364","89.5","0.0395","0.0407","0.0364","89.5","9.37","60","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","376-06-
7","PFTeDA","0.0363","","TRG","Yes","Y","","Y","0.00139","0.00203","0.00407","UG_L","UG_L","","","","0.0407", "0.0363","89.0","0.0390","0.0407","0.0363","89.0","8.40","70","130","30","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C3-PFBA","13C3-
PFBA","96.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","96.9","96.9","","","","","","50","150","", "" "" ""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C3-PFPeA","13C3-
PFPeA","121","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","121","121","","","","","","50","150",""," " "" ""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C3-PFBS","13C3-
PFBS","139","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","139","139","","","","",","50","150","","" ,"",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C2-PFHxA","13C2-
PFHxA","93.2","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","93.2","93.2","","","","","","50","150"," " "" "" ""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C4-PFHpA","13C4-
PFHpA","86.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","86.8","86.8","","","","","","50","150"," " "" "" ""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","18O2-PFHxS","18O2-
PFHxS","87.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","87.7","87.7","","","","","","50","150"," " "" "" ""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C2-PFOA","13C2-
PFOA","92.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","92.3","92.3","","","","","","50","150","" "" "" ""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C5-PFNA","13C5-
PFNA","87.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","87.0","87.0","","","","","","50","150","" "" "" ""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C8-PFOSA","13C8-
PFOSA","58.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","58.2","58.2","","","","","","50","150"," " "" "" ""
"B8G0238-MSD1","537 MOD","08/18/18","18:27","N","NA","000","13C8-PFOS","13C8-
PFOS","99.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","99.3","99.3","","","","","","50","150","", "" "" ""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C2-PFDA","13C2-
PFDA","76.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","76.6","76.6","","","","","","50","150",""
"I' " 17 ll "
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","72.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","72.6","72.6","","","","","","50","15 0","","","",""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","75.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","75.5","75.5","","","","","","50","150
" "" "" "" ""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C2-PFUnA","13C2-
PFUnA","77.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","77.4","77.4","","","","","","50","150"," ","","","
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C2-PFDoA","13C2-
PFDoA","81.8","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","81.8","81.8","","","","","","50","150"," " "" "" ""
"B8G0238-MSD1","537_MOD","08/18/18","18:27","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","72.9","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","72.9","72.9","","","",","","50","150" ""","","","
, , , ,

AMEC Foster Wheeler, Inc.
August 31, 2018
7376 SW Durham Road
Portland, OR 97224
Attn: Ms. Marina Mitchell
SUBJECT: Former Chase Field, Data Validation
Dear Ms. Mitchell,
Enclosed is the final validation report for the fraction listed below. This SDG was received on August 22,2018 . Attachment 1 is a summary of the samples that were reviewed for analysis.

## LDC Project \#42959:

## SDG \#

1802055

## Fraction

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


# Laboratory Data Consultants, Inc. Data Validation Report 

Project/Site Name:
LDC Report Date:
Parameters:
Validation Level:
Laboratory:

Former Chase Field
August 28, 2018
Perfluorinated Alkyl Acids
Stage 2B \& 4
Vista Analytical Laboratory

Sample Delivery Group (SDG): 1802055

| Sample Identification | Laboratory Sample <br> Identification | Matrix | Collection <br> Date |
| :--- | :--- | :--- | :---: |
| Clarks-DW-072518 | $1802055-01$ | Water | $07 / 25 / 18$ |
| Shop Pasture-DW-072518 | $1802055-03$ | Water | $07 / 25 / 18$ |
| Welder HQ-DW-072518 | $1802055-05$ | Water | $07 / 25 / 18$ |
| Lupes House-DW-072518 | $1802055-07$ | Water | $07 / 25 / 18$ |
| Charlies-DW-072518 | $1802055-09$ | Water | $07 / 25 / 18$ |
| Hortzendorf-DW-072518 | $1802055-11$ | Water | $07 / 25 / 18$ |
| Charlies Pasture-DW-072518** | $1802055-13^{* *}$ | Water | $07 / 25 / 18$ |
| Charlies Pasture-FB-072518 | $1802055-14$ | Water | $07 / 25 / 18$ |
| Shooting Range 1-DW-072518 | $1802055-15$ | Water | $07 / 25 / 18$ |
| Shooting Range 1-FB-072518 | $1802055-16$ | Water | $07 / 25 / 18$ |
| DUP-1 | $1802055-17$ | Water | $07 / 25 / 18$ |
| Lupes House-DW-072518MS | $1802055-07 M S$ | Water | $07 / 25 / 18$ |
| Lupes House-DW-072518MSD | $1802055-07 M S D$ | Water | $07 / 25 / 18$ |

**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 Modified

All sample results were subjected to Stage $2 B$ 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 nonconformances 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.
$R \quad$ (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.
A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination $\left(r^{2}\right)$ was 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

Samples Charlies Pasture-FB-072518 and Shooting Range 1-FB-072518 were identified as field blanks. No contaminants were found.

## 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. Relative percent differences (RPD) were within QC limits.

## IX. Ongoing Precision Recoveries

Ongoing precision recovery (OPR) samples were analyzed as required by the method. Percent recoveries (\%R) were within QC limits.

## X. Field Duplicates

Samples Welder HQ-DW-072518 and DUP-1 were identified as field duplicates. No results were detected in any of the samples.

## XI. Labeled Compounds

All percent recoveries (\%R) for labeled compounds used to quantitate target compounds were within QC limits with the following exceptions:

| Sample | Labeled Compound | Area (Limits) | Affected Compound | Flag | A or P |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Shop Pasture-DW-072518 | 13C3-MeFOSAA | 151 (50-150) | MeFOSAA | UJ (all non-detects) | P |
| Shop Pasture-DW-072518 | 13C8-PFOSA | 46.4 (50-150) | PFOSA | NA | - |
| Lupes House-DW-072518 | 13C8-PFOSA | 46.9 (50-150) | PFOSA | NA | - |
| Charlies-DW-072518 | 13C8-PFOSA | 39.6 (50-150) | PFOSA | NA | - |
| Charlies Pasture-DW-072518** | 13C8-PFOSA | 45.2 (50-150) | PFOSA | NA | - |
| Charlies Pasture-FB-072518 | 13C8-PFOSA | 41.9 (50-150) | PFOSA | NA | - |
| Shooting Range 1-DW-072518 | 13C8-PFOSA | 45.8 (50-150) | PFOSA | NA | - |
| Shooting Range 1-FB-072518 | 13C8-PFOSA | 43.1 (50-150) | PFOSA | NA | - |
| DUP-1 | 13C8-PFOSA | 23.8 (50-150) | PFOSA | NA | - |

## 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.

## 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 labeled compound $\%$ R, data were qualified as estimated in one sample.
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 1802055

| Sample |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Compound | Flag | A or P | Reason |  |
| Shop Pasture-DW-072518 | MeFOSAA | UJ (all non-detects) | $P$ | Labeled compounds (\%R) |

Former Chase Field
Perfluorinated Alkyl Acids - Laboratory Blank Data Qualification Summary - SDG 1802055

No Sample Data Qualified in this SDG
Former Chase Field
Perfluorinated Alkyl Acids - Field Blank Data Qualification Summary - SDG 1802055

No Sample Data Qualified in this SDG

LDC \#: 42959A96
VALIDATION COMPLETENESS WORKSHEET
SD \#: 1802055
Stage 2B/4
Laboratory: Vista Analytical Laboratory
Page: $\qquad$
Reviewer: 4
METHOD: LC/MS Perfluorinated Alkyl Acids (EPA Method 537M)
The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.


| Note: | $A=$ Acceptable | $N D=$ No compounds detected | $D=$ Duplicate | SB= Source blank |
| :--- | :--- | :--- | :--- | :--- |
|  | $N=$ Not provided/applicable | $R=$ Rinsate | TB $=$ Trip blank | OTHER: |
| $S W=$ See worksheet | PB $=$ Field blank | ER $=$ Equipment blank |  |  |



LDC \#: 42959 A96

## VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: 2nd Reviewer: $\qquad$
Method: LCMS (EPA Method 537M)

| Validation Area | Yes | No | NA | Findings/Comments |
| :---: | :---: | :---: | :---: | :---: |
| 1. Technical holding times |  |  |  |  |
| Were all technical holding times met? |  |  |  |  |
| Was cooler temperature criteria met? |  |  |  |  |
|  |  |  |  |  |
| 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 |  |  |  |  |
| Did the laboratory perform a 5 point calibration prior to sample analysis? |  |  |  |  |
| Were all percent relative standard deviations (\%RSD) $\leq 20 \%$ ? |  |  |  |  |
| 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) $\leq 30 \%$ of their true value for each calibration standard |  |  |  |  |
| 116. Initial Calibration Verification 5 . |  |  |  |  |
| Was an initial calibration verification standard analyzed after each initial calibration for each instrument? | $1$ |  |  |  |
| Were all percent differences (\%D) $\leq 30 \%$ ? |  |  |  |  |
| IV. Continuing calibration |  |  |  |  |
| Was a continuing calibration analyzed daily? |  |  |  |  |
| Were all percent differences (\%D) of the continuing calibration $\leq 30 \%$ ? |  |  |  |  |
| V. Laboratory Blanks |  |  |  |  |
| 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 |  |  |  |  |
| Were field blanks identified in this SDG? |  |  |  |  |
| Were target compounds detected in the field blanks? |  |  |  |  |
| VII. 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 |  |  |  |  |
| Was an LCS analyzed for this SDG? |  |  |  |  |

## VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: -JUG 2nd Reviewer: $\qquad$

| 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) <br> within the QC limits? |  |  |  |  |

X. Field duplicates

Were field duplicate pairs identified in this SDG?
Were target compounds detected in the field duplicates?.
171

X1. Intermatstandards lapeled comyormas
Were internal standard area counts within $\pm 50 \%$ of the associated calibration standard?

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 REs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?
 XIII. Target compound identification


## VALIDATION FINDINGS WORKSHEET

METHOD: Perfluorinated Alkyl Acids (EPA Method 537)

| A. PFBA | $375-22-4$ |
| :--- | :--- |
| B. PFPeA | $2706-90-3$ |
| C. PFBS | $375-73-5$ |
| D. PFHxA | $307-24-4$ |
| E. PFHPA | $375-85-9$ |
| F. PFHxS | $355-46-4$ |
| G. PFOA | $335-67-1$ |
| H. PFNA | $375-95-1$ |
| I. PFOSA | $754-91-6$ |
| J. PFOS | $1763-23-1$ |
| K. PFDA | $335-76-2$ |
| L. MeFOSAA | $2355-31-9$ |
| M. EtFOSAA | $2991-50-6$ |
| N. PFUnA | $2058-94-8$ |
| O. PFDS | $335-77-3$ |
| P. PFDoA | $307-55-1$ |
| Q. PFTrDA | $72629-94-8$ |
| R. PFTeDA | $376-06-7$ |
|  |  |
|  |  |

Notes:
$\qquad$

METHOD: LC/MS PFOS/PFOAs (EPA Method 537M)
Please see qualifications below for all questions answered " N ". Not applicable questions are identified as " $\mathrm{N} / \mathrm{A}$ ".
Y N N/A Were all labeled compounds within -50 to $+150 \%$ of the associated calibration standard?

| \# | Date | Sample ID | Labeled Compound | \%R | Limits (\%) | Qualifications |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2 (ND) | 13C3-L | 151 | 50-150 | $J / U J / P$ (jual L) |
|  |  | I | 13C8-I | 46,4 |  | $\nu$ dets/p (qual I) |
|  |  |  |  |  |  | 1/1 |
|  |  | 4 (ND) | $13 C 8-I$ | 46.9 |  |  |
|  |  |  |  |  |  |  |
|  |  | 5 (ND) | $13 C 8-I$ | 39.6 |  |  |
|  |  |  |  |  |  |  |
|  |  | 7 (Det) | 13 Cs -I | 45.2 |  |  |
|  |  |  |  |  |  |  |
|  |  | 8 (ND) | 13C8-PF'I | 41.9 |  |  |
|  |  |  |  |  |  |  |
|  |  | 9 (MD) | 13 cs -I | 45,8 |  |  |
|  |  |  |  |  |  |  |
|  |  | 10 (ND) | 13c8-I | 43.1 |  |  |
|  |  |  |  |  |  |  |
|  |  | 11 (ND) | 13 CB - 1 | 23.8 |  | , |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

(13C3-PFBS) $=13 \mathrm{C} 3$-Perfluorobutanesulfonic acid
(13C2-PFHxA) $=13 \mathrm{C} 2$-Perfluorohexanoic acid
$(13 \mathrm{C} 4-\mathrm{PFHpA})=13 \mathrm{C} 4-$ Perfluoroheptanoic acid
(18O2-PFHxS) $=$ 18O2-Perfluorohexanesulfonic acid
(13C2-PFOA) $=13 \mathrm{C} 4$-Perfluorooctane acid
(13C8-PFOS) $=13 \mathrm{C} 8$-Perfluorooctanesulfonic acid (13C5-PFNA) $=13 \mathrm{C} 5$-Perfluorononanoic acid (13C2-PFDA) $=13 \mathrm{C} 2$-Perfluorodecanoic acid (13C2-PFUnA) $=13 \mathrm{C} 2$-Perfluoroundecanoic acid
(13C2-PFDoA) $=13 \mathrm{C} 2$-Perfluorododecanoic acid
(13C2-PFTeDA) $=13 \mathrm{C} 4$-Perfluorotetradecanoic acid (D3-MeFOSAA) = Methyl perfluorooctanesulfonamidoacetic acid (D5-EtFOSAA) $=$ Ethyl perfluorooctanesulfonamidoacetic acid

METHOD: LC/MS PFCs (EPA Method 537Mod)

| Calibration Date | Instrument | Compound | Standard | (Y) <br> Response ratio | (X) <br> Conc. Ratio | $\overline{\left(X^{\wedge} 2\right)}$ <br> Conc. Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8/18/2018 | SCN945 | PFOA | 1 | 0.0251 | 0.02 | 0.00040 |
|  |  |  | 2 | 0.0420 | 0.04 | 0.0016 |
|  |  | 13C8-PFOA | 3 | 0.0849 | 0.08 | 0.0064 |
|  |  |  | 4 | 0.1680 | 0.16 | 0.0256 |
|  |  |  | 5 | 0.3827 | 0.40 | 0.1600 |
|  |  |  | 6 | 0.7852 | 0.80 | 0.6400 |
|  |  |  | 7 | 3.8362 | 4.00 | 16.0000 |
|  |  |  | 8 | 7.9179 | 8.00 | 64.0000 |
|  |  |  | 9 | 20.7887 | 20.00 | 400.0000 |
|  |  |  | 10 | 39.8725 | 40.00 | 1600.0000 |
|  |  |  |  |  |  |  |


| Regression Output | Calculated |  | Reported WQR |  |
| :---: | :---: | :---: | :---: | :---: |
| Constant | c | -0.07798 | c | 0.0337205 |
| Std Err of Y Est |  |  |  |  |
| R Squared |  | 0.9998218 |  | 0.9994680 |
| Degrees of Freedom |  |  |  |  |
|  | m1 | m2 | m1 | $m 2$ |
| X Coefficient(s) | 1.0446804 | -0.0011523 | 1.0082300 | -0.000008800 |
| Std Err of Coef. |  |  |  |  |
| Correlation Coefficient |  | 0.999911 |  |  |
| Coefficient of Determination ( $\mathrm{r}^{\wedge} 2$ ) |  | 0.999822 |  |  |

METHOD: LC/MS PFCs (EPA Method 537Mod)

| Calibration Date | Instrument | Compound | Standard | (Y) <br> Response ratio | $(\mathrm{X})$ <br> Conc. Ratio | $\left(\mathrm{X}^{\wedge} 2\right)$ <br> Conc. Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8/18/2018 | SCN945 | PFOS | 1 | 0.0172 | 0.02 | 0.00040 |
|  |  |  | 2 | 0.0352 | 0.04 | 0.0016 |
|  |  | 13C8-PFOS | 3 | 0.0702 | 0.08 | 0.0064 |
|  |  |  | 4 | 0.1436 | 0.16 | 0.0256 |
|  |  |  | 5 | 0.3487 | 0.40 | 0.1600 |
|  |  |  | 6 | 0.7087 | 0.80 | 0.6400 |
|  |  |  | 7 | 3.6334 | 4.00 | 16.0000 |
|  |  |  | 8 | 7.2679 | 8.00 | 64.0000 |
|  |  |  | 9 | 20.8458 | 20.00 | 400.0000 |
|  |  |  | 10 | 42.8555 | 40.00 | 1600.0000 |
|  |  |  |  |  |  |  |


| Regression Output | Calculated |  | Reported WQR |  |
| :---: | :---: | :---: | :---: | :---: |
| Constant | $c$ | -0.09598 | $c$ | -0.0246865 |
| Std Err of Y Est |  |  |  |  |
| R Squared |  | 0.9997056 |  | 0.9992470 |
| Degrees of Freedom |  |  |  |  |
|  | m1 | m2 | m1 | m2 |
| X Coefficient(s) | 0.9619884 | 0.0027945 | 0.9201470 | 0.000319688 |
| Std Err of Coef. |  |  |  |  |
| Correlation Coefficient |  | 0.999853 |  |  |
| Coefficient of Determination ( $\mathrm{r}^{\wedge} 2$ ) |  | 0.999706 |  |  |

VALIDATION FINDINGS WORKSHEET Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: $\qquad$ 1 of 1 2nd Reviewer: $\qquad$

## METHOD: LC/MS PFAs (EPA Method 537Mod)

The percent difference (\%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

Where:
\% Difference $=100$ * (ave. RRF - RRF)/ave. I ave. RRF = initial calibration average RRF $R R F=(A x)(C i s) /(A i s)(C x)$

RRF = continuing calibration RRF
Ax = Area of compound

Cx = Concentration of compound,
Ais = Area of associated internal standard
Cis = Concentration of internal standard

| \# | Standard ID | Calibration Date | Compound (IS) |  |  | Conc | Reported | Recalculated | Reported \% R | Recalculated \% R |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 180818M25_13 | 8/18/2018 | PFOA | (13C | -PFOA) | 10.00 | 9.2 | 9.17 | 91.7 | 91.7 |
|  | ICV |  | PFOS | (13C | -PFOS) | 10.00 | 8.4 | 8.36 | 8.4 | 83.6 |

VALIDATION FINDINGS WORKSHEET
pike/Matrix Spike Duplicates Results Verification

## METHOD: LC/MS PFAS (EPA Method 537Mod)

The percent recoveries (\%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

| \% Recovery $=100$ * $($ SSC - SC $) / S A$ | Where: | SSC = Spiked sample concentration |
| :--- | :--- | :--- |
|  | SA $=$ Spike added | SC = Sample concentation |
| RPD $=1$ MSC - MSC $1 * 2 /(M S C+M S D C)$ | MSC $=$ Matrix spike concentration | MSDC = Matrix spike duplicate concentration |
| MS/MSD samples: | $12 / 13$ |  |



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.

VALIDATION FINDINGS WORKSHEET Laboratory Control Sample/ Sample Duplicates Results Verification

## METHOD: LC/MS PFCs (EPA Method 537Mod)

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:


| Compound | $\left.\begin{array}{c} \text { Spike } \\ \text { Added } \\ (\text { ug } / L \text { i } \end{array}\right)$ |  | $\begin{gathered} \text { Spike } \\ \text { Concentration } \\ (\text { Ug } / L) \\ \hline \end{gathered}$ |  | CCs |  | $\xrightarrow[\text { Percent Recovery }]{\text { C.sn }}$ |  | LCS/L_SD <br> RPD |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
|  | LCS | LCSD | LCS | LCSD | Reported | Recalc. | Reported | Recalc. | Reported | Recalc. |
| PFOA | 90.0 | NA | 37.89 | NA | 94.7 | 94.7 |  |  | - |  |
| PFOS |  | 1 | 40.26 | 1 | 100.6 | 100.6 | - |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within $10.0 \%$ of the recalculated results.

## VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

Page: 1 of 1
Reviewer: $\qquad$
$\qquad$ 2nd reviewe

METHOD: LC/MS PFAS (EPA Method 537M)
Y N N/A Were all reported results recalculated and verified for all level IV samples? y N N/A Were all recalculated results for detected target compounds agree within $10.0 \%$ of the reported results?

|  | tion | $\mathrm{n}=\frac{\left(\mathrm{A}_{\mathrm{a}}\right)\left(\left(_{\mathrm{l}}\right)\left(\mathrm{V}_{)}\right)(\mathrm{DF})(2.0)\right.}{\left(\mathrm{A}_{\mathrm{i}}\right)(\operatorname{RRF})\left(\mathrm{V}_{\mathrm{o}}\right)\left(\mathrm{V}_{\mathrm{i}}\right)(\% \mathrm{~S})}$ |
| :---: | :---: | :---: |
| $A_{\text {x }}$ | A | Area of the characteristic ion (EICP) for the compound to be measured |
| $\mathrm{A}_{\text {is }}$ | i | Area of the characteristic ion (EICP) for the specific internal standard |
| $\mathrm{I}_{\text {s }}$ | A | Amount of internal standard added in nanograms (ng) |
| V 。 | V | Volume or weight of sample extract in milliliters (ml) or grams (g). |
| $V_{1}$ | V | Volume of extract injected in microliters (ul) |
| $V_{\text {t }}$ | V | Volume of the concentrated extract in microliters (ul) |
| Df | D | Dilution Factor. |
| \%S | P | Percent solids, applicable to soil and solid matrices only. |
| 2.0 | $=\mathrm{F}$ | Factor of 2 to account for GPC cleanup |

Example:
Sample I.D. $\qquad$ 7 , $\qquad$ $:$
$=1.474 \mathrm{~m} / \mathrm{L}$

| Sample ID | Compound | Reported <br> Concentration <br> (Mg/L) | Calculated <br> Concentration <br> ( | Qualification |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1.47 |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
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The LDC job number listed above was entered by
Entered from Body or Summary

$\qquad$

| 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 | CHARLIES_PASTURE | DW | Domestic Well | -97.674956 | 28.358511 | CHARLIES PASTURE-DW-072518 | WP | Drinking Water | 25-Jul-18 | Perfluoroalkyl Compounds | 1802055 |
| CHASE_FIELD_NAS | TBC | CHARLIES | DW | Domestic Well | -97.691754 | 28.367219 | CHARLIES-DW-072518 | WP | Drinking Water | 25-Jul-18 | Perfluoroalkyl Compounds | 1802055 |
| CHASE_FIELD_NAS | TBC | CLARKS | DW | Domestic Well | -97.686229 | 28.377308 | CLARKS-DW-072518 | WP | Drinking Water | 25-Jul-18 | Perfluoroalkyl Compounds | 1802055 |
| CHASE_FIELD_NAS | TBC | WELDER_HQ | DW | Domestic Well | -97.683954 | 28.353261 | DUP-1_072518 | WG | Ground water | 25-Jul-18 | Perfluoroalkyl Compounds | 1802055 |
| CHASE_FIELD_NAS | TBC | HORTZENDORF | DW | Domestic Well | -97.679019 | 28.376492 | HORTZENDORF-DW-072518 | WP | Drinking Water | 25-Jul-18 | Perfluoroalkyl Compounds | 1802055 |
| CHASE_FIELD_NAS | TBC | LUPES_HOUSE | DW | Domestic Well | -97.695117 | 28.361030 | LUPES HOUSE-DW-072518 | WP | Drinking Water | 25-Jul-18 | Perfluoroalkyl Compounds | 1802055 |
| CHASE_FIELD_NAS | TBC | SHOOTING_RANGE_1 | DW | Domestic Well | -97.666696 | 28.357790 | SHOOTING RANGE 1-DW-072518 | WP | Drinking Water | 25-Jul-18 | Perfluoroalkyl Compounds | 1802055 |
| CHASE_FIELD_NAS | TBC | SHOP_PASTURE | DW | Domestic Well | -97.669388 | 28.344045 | SHOP PASTURE-DW-072518 | WP | Drinking Water | 25-Jul-18 | Perfluoroalkyl Compounds | 1802055 |
| CHASE_FIELD_NAS | TBC | WELDER_HQ | DW | Domestic Well | -97.683954 | 28.353261 | WELDER HQ-DW-072518 | WP | Drinking Water | 25-Jul-18 | Perfluoroalkyl Compounds | 1802055 |


[^0]:    Work Order 1802055

