Groundwater Sample Results,<br>Level 4 Laboratory Report, Electronic Data<br>Deliverable, Data Validation Report, Sample Location<br>Report, SDG 1700871<br>MCAS<br>El Toro, CA

April 2021

August 04, 2017

## Vista Work Order No. 1700871

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 14, 2017. This sample set was analyzed on a standard turn-around time, under your Project Name 'MCAS El Toro, BRAC PFAS'.

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. 1700871

Case Narrative

## Sample Condition on Receipt:

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

## Analytical Notes:

## Modified EPA Method 537

The samples were extracted and analyzed for a selected list of 14 PFAS using Modified EPA Method 537.
Samples "18-GW-18BGM03E-20170712", "24-GW-24IN03-20170712", "DUP02-20170712", "24-GW-24EX13A-20170712", "24-GW-24MW15D-20170712", "16-GW-16_MW19-20170712", and "16-GW-16_MW04-20170713" contained particulate and were centrifuged prior to extraction.

The results for PFTrDA and PFTeDA were taken from re-injections of the sample extracts; these analytes were outside the method criteria in the original CCV.

## 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.

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

QC Anomalies

| LabNumber | SampleName | Analysis | Analyte | Flag |
| :--- | :--- | :--- | :--- | :--- |
| $1700871-04$ | 24-GW-24IN03-20170712 | Modified EPA Method 537 | 13C2-PFTeDA | H |
| $1700871-05$ | DUP02-20170712 | Modified EPA Method 537 | 13C2-PFTeDA | 3.50 |
| $1700871-10$ | EB04-20170713 | Modified EPA Method 537 | 13C2-PFTeDA | H |
| $1700871-11$ | 16-GW-16_MW04-20170713 | Modified EPA Method 537 | 13C4-PFHpA | H |
| $1700871-11$ | 16-GW-16_MW04-20170713 | Modified EPA Method 537 | 13C2-PFTeDA | H |

$\mathrm{H}=$ Recovery was outside laboratory acceptance criteria.

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## Sample Inventory Report

| Vista Sample ID | Client <br> Sample ID | Sampled | Received | Components/Containers |
| :---: | :---: | :---: | :---: | :---: |
| 1700871-01 | EB03-20170712 | 12-Jul-17 14:00 | 14-Jul-17 09:33 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1700871-02 | 5-GW-05_DGMW41B-20170712 | 12-Jul-17 08:10 | 14-Jul-17 09:33 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1700871-03 | 18-GW-18BGM03E-20170712 | 12-Jul-17 09:30 | 14-Jul-17 09:33 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1700871-04 | 24-GW-24IN03-20170712 | 12-Jul-17 10:45 | 14-Jul-17 09:33 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1700871-05 | DUP02-20170712 | 12-Jul-17 10:50 | 14-Jul-17 09:33 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1700871-06 | 24-GW-24EX13A-20170712 | 12-Jul-17 11:40 | 14-Jul-17 09:33 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1700871-07 | 24-GW-24MW15D-20170712 | 12-Jul-17 12:40 | 14-Jul-17 09:33 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1700871-08 | 16-GW-16_MW28-20170712 | 12-Jul-17 14:20 | 14-Jul-17 09:33 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1700871-09 | 16-GW-16_MW19-20170712 | 12-Jul-17 16:00 | 14-Jul-17 09:33 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1700871-10 | EB04-20170713 | 13-Jul-17 09:00 | 14-Jul-17 09:33 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1700871-11 | 16-GW-16_MW04-20170713 | 13-Jul-17 08:00 | 14-Jul-17 09:33 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |

## ANALYTICAL RESULTS

Analytical Laboratory


Vista
Analytical Laboratory

## Sample ID: OPR

Modified EPA Method 537


LCL-UCL - Lower control limit - upper control limit












## DATA QUALIFIERS \& ABBREVIATIONS

B This compound was also detected in the method blank.
D Dilution

E The associated compound concentration exceeded the calibration range of the instrument.

H Recovery and/or RPD was outside laboratory acceptance limits.
I Chemical Interference
J The amount detected is below the Reporting Limit/LOQ.
M Estimated Maximum Possible Concentration. (CA Region 2 projects only)

* See Cover Letter

Conc. Concentration
NA Not applicable
ND Not Detected

TEQ Toxic Equivalency

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

## CERTIFICATIONS

| Accrediting Authority | Certificate Number |
| :--- | :---: |
| Arkansas Department of Environmental Quality | $17-015-0$ |
| California Department of Health - ELAP | 2892 |
| DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005 | 3091.01 |
| Florida Department of Health | E87777-18 |
| Hawaii Department of Health | N/A |
| Louisiana Department of Environmental Quality | 01977 |
| Maine Department of Health | 2016026 |
| Minnesota Department of Health | 1175673 |
| Nevada Division of Environmental Protection | CA004132017-1 |
| New Hampshire Environmental Accreditation Program | 207716 |
| New Jersey Department of Environmental Protection | CA003 |
| New York Department of Health | 11411 |
| Oregon Laboratory Accreditation Program | $4042-008$ |
| Pennsylvania Department of Environmental Protection | 013 |
| Texas Commission on Environmental Quality | T104704189-17-8 |
| Virginia Department of General Services | 8621 |
| Washington Department of Ecology | C584 |
| Wisconsin Department of Natural Resources | 998036160 |

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

## NELAP Accredited Test Methods

| MATRIX: Air |  |
| :--- | :--- |
| Description of Test | Method |
| Determination of Polychlorinated p-Dioxins \& Polychlorinated <br> Dibenzofurans | EPA 23 |


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


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


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


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


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

1104 Windfield Way
Vista Analytical

El Dorado Hills, CA 95762

TEL: 916-673-1520

1700871
Vista PM: Karen Volpendesta

CHAIN OF CUSTODY RECORD
dATE: $712 / 2017$
$-0.3$
PAGE:
$\qquad$ OF $\qquad$

$\qquad$ OF $\qquad$ 1


Vista Work Order \#: $\qquad$ TAT



|  | Adequate Sample Volume Received? A,B | NO | NA |
| :--- | :--- | :--- | :--- |
| Holding Time Acceptable? | $\checkmark$ |  |  |
| Shipping Containers) Intact? |  |  |  |
| Shipping Custody Seals Intact? | $\checkmark$ |  |  |
| Shipping Documentation Present? | $\checkmark$ |  |  |
| Airbill | Tr \# 808 | 90794095 | $\checkmark$ |
|  |  |  |  |
| Sample Container Intact? | $\checkmark$ |  |  |
| Sample Custody Seals Intact? |  |  | $\checkmark$ |
| Chain of Custody / Sample Documentation Present? | $\checkmark$ |  |  |
| COC Anomaly/Sample Acceptance Form completed? |  | $\checkmark$ | $\checkmark$ |


comments: Sample label: "18-GW-18BGMOZE"
COC ID for this sample "18-GW-18BGMO3E-20176712

## EXTRACTION INFORMATION

# Process Sheet <br> Workorder: 1700871 

Prep Expiration: 2017-Jul-26
Client: KMEA

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

Workorder Due:04-Aug-17 00:00
TAT: 21


Initial Sequence: $\qquad$

$\qquad$

## Batch: B7G0067

## Matrix: Aqueous

| LabNumber | WetWeight (Initial) | \% Solids <br> (Extraction Solids) | DryWeight | Final | Extracted | Ext By | Spike | SpikeAmount | ClientMatrix | Analysis |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1700855-01 | 0.27357 , | NA | $N A$ | 1000 | 20-Jul-17 07:41 | BAP |  |  | QC Water | 537M PFAS DOD (LOQ as |
| 1700855-02 | 0.27423 ر | 1 | 1 | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700855-03 | 0.27164 ) |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700855-04 | 0.26865 ) |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700855-05 | 0.2726 / |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700855-06 | 0.27278 , |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700855-07 | 0.26881 - |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700855-08 | 0.2612 / |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700855-09 | 0.25188 / |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700871-01 | 0.12146 / |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Blank Water | 537M PFAS DOD (LOQ as |
| 1700871-02 | 0.11547 |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700871-03 | 0.11765 / |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700871-04 | 0.11741 , |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700871-05 | 0.11807 ر |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700871-06 | 0.11851 - |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700871-07 | 0.1193 |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700871-08 | 0.11899 |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700871-09 | 0.11913 ) |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| 1700871-10 | $0.11646 /$ |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Blank Water | 537M PFAS DOD (LOQ as |
| 1700871-11 | 0.12043 / |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  | Groundwater | 537M PFAS DOD (LOQ as |
| B7G0067-BLK1 | $0.125 \sim$ |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  |  | QC |
| B7G0067-BS1 | 0.125 人 |  |  | 1000 | 20-Jul-17 07:41 | BAP |  |  |  | QC |
| B7G0067-MS1 | $0.27298 \sim$ | 1 | $\bigcirc$ | 1000 | 20-Jul-17 07:41 | BAP | 17D2705 | $\checkmark 10 \checkmark$ |  | QC |
| B7G0067-MSD1 | $0.2776 \sim$ | $V$ |  | 1000 | 20-Jul-17 07:41 | BAP | 17D2705 | - 10 |  | QC |

$$
7|21| 17
$$

# PREPARATION BENCH SHEET 

Prepared using: LCMS - SPE Extraction-LCMS
cocos




PREPARATION BENCH SHEET

## Matrix: Aqueous

Method: 537M PFAS DOD (LOO as mRL)

Prepared using: LCMS - SPE Extraction-LCMS
Prep Date/Time:10.Jul-17 07:41

$$
\text { Bi } \quad 2.20 .17
$$




Comments: Assume $1 \mathrm{~g}=1 \mathrm{~mL}$ (A) Mmpuwas antytuged to momos pontoulah. HB 71171 A

## SAMPLE DATA - MODIFIED EPA METHOD 537

## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945

| Dataset: | U:\Q4.PRO\results\170727M1\170727M1-54.qld |
| :--- | :--- |
| Last Altered: | Wednesday, August 02, 2017 15:08:19 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 16:53:29 Pacific Daylight Time |

Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_54, Date: 27-Jul-2017, Time: 21:08:21, ID: B7G0067-BLK1 Method Blank 0.125, Description: Method Blank

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ |  | 2.53 e 3 | 0.2500 |  | 2.96 |  |  |  |  |
| 2 | 4 PFHxA | $313.2>268.9$ |  | 8.40 e 3 | 0.2500 |  | 3.19 |  |  |  |  |
| 3 | 5 PFHpA | $363>318.9$ |  | 2.02 e 4 | 0.2500 |  | 3.45 |  |  |  |  |
| 4 | 6 PFHxS | $398.9>79.6$ | 3.44 e 0 | 1.83 e 3 | 0.2500 |  | 3.56 | 3.48 | 0.0235 |  |  |
| 5 | 7 PFOA | $413>368.7$ |  | 2.67 e 4 | 0.2500 |  | 3.65 |  |  |  |  |
| 6 | 9 PFNA | $462.9>418.8$ |  | 2.24 e 4 | 0.2500 |  | 3.83 |  |  |  |  |
| 7 | 11 PFOS | $499>79.9$ |  | 4.46 e 3 | 0.2500 |  | 3.89 |  |  |  |  |
| 8 | 12 PFDA | $513>468.8$ |  | 2.21 e 4 | 0.2500 |  | 4.01 |  |  |  |  |
| 9 | 13 N-MeFOSAA | $570.1>419$ |  | 4.19 e 3 | 0.2500 |  | 4.03 |  |  |  |  |
| 10 | 14 N -EtFOSAA | $584.2>419$ |  | 3.68 e3 | 0.2500 |  | 4.10 |  |  |  |  |
| 11 | 15 PFUnA | $562.9>518.9$ |  | 2.31 e 4 | 0.2500 |  | 4.11 |  |  |  |  |
| 12 | 17 PFDoA | $612.9>318.8$ |  | 2.10 e 3 | 0.2500 |  | 4.34 |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 2.53 e3 | 2.85 e 4 | 0.2500 | 0.031 | 2.96 | 2.89 | 0.444 | 57.8 | 115.6 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 8.40 e 3 | 2.85 e 4 | 0.2500 | 0.275 | 3.19 | 3.14 | 1.47 | 21.4 | 107.1 |
| 15 | 24 13C4-PFHpA | $367.2>321.8$ | 2.02 e 4 | 2.85 e 4 | 0.2500 | 0.260 | 3.45 | 3.41 | 3.55 | 54.6 | 109.2 |
| 16 | 25 1802-PFHxS | $403>102.6$ | 1.83 e 3 | 4.35 e 3 | 0.2500 | 0.402 | 3.56 | 3.47 | 5.26 | 52.4 | 104.7 |
| 17 | 26 13C2-PFOA | 414.9 > 369.7 | 2.67 e 4 | 2.45 e 4 | 0.2500 | 1.042 | 3.65 | 3.61 | 13.7 | 52.4 | 104.8 |
| 18 | 27 13C5-PFNA | $468.2>422.9$ | 2.24 e 4 | 2.70 e 4 | 0.2500 | 0.792 | 3.83 | 3.79 | 10.4 | 52.3 | 104.6 |
| 19 | 29 13C8-PFOS | $507>79.9$ | 4.46 e 3 | 4.15 e 3 | 0.2500 | 0.951 | 3.89 | 3.84 | 13.5 | 56.6 | 113.2 |

## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945

Last Altered: Wednesday, August 02, 2017 15:08:19 Pacific Daylight Time Printed: Wednesday, August 02, 2017 16:53:42 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:|Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Name: 170727M1_54, Date: 27-Jul-2017, Time: 21:08:21, ID: B7G0067-BLK1 Method Blank 0.125, Description: Method Blank

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 30 13C2-PFDA | $515.1>469.9$ | 2.21 e 4 | 2.65 e4 | 0.2500 | 0.869 | 4.01 | 3.95 | 10.4 | 48.0 | 95.9 |
| 2 | 31 d3-N-MeFOSAA | $573.3>419$ | 4.19 e 3 | 2.62 e 4 | 0.2500 | 0.013 | 4.03 | 3.98 | 2.00 | 619 | 95.2 |
| 3 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 3.68 e3 | 2.62 e 4 | 0.2500 | 0.013 | 4.12 | 4.05 | 1.76 | 553 | 85.0 |
| 4 | 33 13C2-PFUnA | $565>519.8$ | 2.31 e 4 | 2.62 e 4 | 0.2500 | 0.928 | 4.17 | 4.12 | 11.1 | 47.6 | 95.3 |
| 5 | 34 13C2-PFDoA | $615>569.7$ | 2.10 e 3 | 2.62 e 4 | 0.2500 | 0.071 | 4.34 | 4.28 | 1.00 | 56.5 | 112.9 |
| 6 | 37 13C5-PFHxA | $318>272.9$ | 2.85e4 | 2.85 e 4 | 0.2500 | 1.000 | 3.19 | 3.14 | 5.00 | 20.0 | 100.0 |
| 7 | 38 13C3-PFHxS | $401.9>79.9$ | 4.35 e 3 | 4.35 e 3 | 0.2500 | 1.000 | 3.56 | 3.48 | 12.5 | 50.0 | 100.0 |
| 8 | 39 13C8-PFOA | $421.3>376$ | 2.45 e 4 | 2.45 e 4 | 0.2500 | 1.000 | 3.65 | 3.60 | 12.5 | 50.0 | 100.0 |
| 9 | 40 13C9-PFNA | $472.2>426.9$ | 2.70 e 4 | 2.70 e 4 | 0.2500 | 1.000 | 3.83 | 3.79 | 12.5 | 50.0 | 100.0 |
| 10 | 41 13C4-PFOS | $503>79.9$ | 4.15 e 3 | 4.15 e 3 | 0.2500 | 1.000 | 3.89 | 3.84 | 12.5 | 50.0 | 100.0 |
| 11 | 42 13C6-PFDA | $519.1>473.7$ | 2.65 e 4 | 2.65 e 4 | 0.2500 | 1.000 | 4.01 | 3.95 | 12.5 | 50.0 | 100.0 |
| 12 | 43 13C7-PFUnA | $570.1>524.8$ | 2.62 e 4 | 2.62e4 | 0.2500 | 1.000 | 4.17 | 4.12 | 12.5 | 50.0 | 100.0 |
| 13 | 44 Total PFBS | $299>79.7$ | 0.00e0 | 2.53 e 3 | 0.2500 |  | 2.96 |  | 0.000 |  |  |
| 14 | 45 Total PFHxS | $398.9>79.6$ | 3.44 e 0 | 1.83 e 3 | 0.2500 |  | 3.52 |  | 0.000 |  |  |
| 15 | 46 Total PFOA | $413>368.7$ | 0.00 e 0 | 2.67 e 4 | 0.2500 |  | 3.65 |  | 0.000 |  |  |
| 16 | 47 Total PFOS | $499>79.9$ | 0.00e0 | 4.46 e 3 | 0.2500 |  | 3.89 |  | 0.000 |  |  |
| 17 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00 e 0 | 4.19 e 3 | 0.2500 |  | 4.03 |  | 0.000 |  |  |
| 18 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00e0 | 3.68 e 3 | 0.2500 |  | 4.17 |  | 0.000 |  |  |

# Quantify Totals Report MassLynx MassLynx V4.1 SCN 945 

| Dataset: | U:\Q4.PRO\results\170727M1\170727M1-54.qld |
| :--- | :--- |
| Last Altered: | Wednesday, August 02, 2017 15:08:19 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 16:53:29 Pacific Daylight Time |

Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_54, Date: 27-Jul-2017, Time: 21:08:21, ID: B7G0067-BLK1 Method Blank 0.125, Description: Method Blank Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 |  |  |  |  |  | Conc. |  |

Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 6 PFHxS | $398.9>79.6$ | 3.48 | 3.440 | 1833.019 | 0.023 | MMI |  |

Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 7 PFOA | $413>368.7$ |  | 26725.291 | Conc. |  |  |

## Total PFOS

|  | \# Name | Trace | RT | Area | IS Area | Response |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | Primary Flags $\quad$ Conc.

Total N-Me-FOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Total N-EtFOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: |
| 1 | 14 N -EtFOSAA | $584.2>419$ |  | 3676.699 | Primary Flags | MM-I |

Dataset: U:\Q4.PRO\results\170727M1\170727M1-54.qld
Last Altered: Wednesday, August 02, 2017 15:08:19 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 16:53:29 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_54, Date: 27-Jul-2017, Time: 21:08:21, ID: B7G0067-BLK1 Method Blank 0.125, Description: Method Blank

## Total PFBS

F6:MRM of 2 channels, ES-
$299>79.7$
$1.699 e+002$


13C3-PFBS


Reviewed: WJL 8/4/2017


13C2-PFHxA




13C4-PFHpA


## Total PFHxS



1802-PFHxS


## Dataset: <br> U:\Q4.PRO\results\170727M1\170727M1-54.qld

Last Altered: Wednesday, August 02, 2017 15:08:19 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 16:53:29 Pacific Daylight Time

## Name: 170727M1_54, Date: 27-Jul-2017, Time: 21:08:21, ID: B7G0067-BLK1 Method Blank 0.125, Description: Method Blank

\section*{Total PFOA <br> F19:MRM of 2 channels,ES- | $413>368.7$ |
| :---: |
| $4.689 \mathrm{e}+003$ |}



## 13C2-PFOA



## PFNA




13C5-PFNA


Total PFOS



13C8-PFOS


## PFDA



13C2-PFDA


## Dataset: <br> U:\Q4.PRO\results\170727M1\170727M1-54.qld

Last Altered: Wednesday, August 02, 2017 15:08:19 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 16:53:29 Pacific Daylight Time

## Name: 170727M1_54, Date: 27-Jul-2017, Time: 21:08:21, ID: B7G0067-BLK1 Method Blank 0.125, Description: Method Blank

## PFUnA



F43:MRM of 2 channels,ES562.9 > 269


13C2-PFUnA


## N-MeFOSAA



d3-N-MeFOSAA
F47:MRM of 1 channel,ES$573.3>419$ $5.942 \mathrm{e}+004$


N-EtFOSAA


d5-N-EtFOSAA


## PFDoA




## Dataset: <br> U:\Q4.PRO\results\170727M1\170727M1-54.qld

Last Altered: Wednesday, August 02, 2017 15:08:19 Pacific Daylight Time Printed: Wednesday, August 02, 2017 16:53:29 Pacific Daylight Time

## Name: 170727M1_54, Date: 27-Jul-2017, Time: 21:08:21, ID: B7G0067-BLK1 Method Blank 0.125, Description: Method Blank

## 13C5-PFHxA <br> 

## 13C4-PFOS



## 13C3-PFHxS



13C6-PFDA


13C8-PFOA


13C7-PFUnA


13C9-PFNA


## Quantify Sample Summary Report

Vista Analytical Laboratory

```
Dataset: U:\Q4.PRO\results\170731M1\170731M1-6.qld
```

Last Altered: Wednesday, August 02, 2017 08:41:59 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 08:42:19 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
## Name: 170731M1_6, Date: 31-Jul-2017, Time: 12:52:41, ID: B7G0067-BLK1 Method Blank 0.125, Description: Method Blank

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 18 PFTrDA | $662.9>618.9$ |  | 1.71 e 3 | 0.2500 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | $1.01 e 4$ | 0.2500 |  | 4.68 |  |  |  |  |
| 3 | $35 ~ 13 C 2-P F T e D A ~$ | $714.8>669.6$ | $1.01 e 4$ | $2.29 e 4$ | 0.2500 | 0.762 | 4.68 | 4.64 | 5.52 | 29.0 | 57.9 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | $2.29 e 4$ | $2.29 e 4$ | 0.2500 | 1.000 | 4.17 | 4.13 | 12.5 | 50.0 | 100.0 |

Dataset:
U:\Q4.PRO\results\170731M1\170731M1-6.qld
Last Altered: Wednesday, August 02, 2017 08:41:59 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 08:42:19 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_6, Date: 31-Jul-2017, Time: 12:52:41, ID: B7G0067-BLK1 Method Blank 0.125, Description: Method Blank

## PFTeDA



170731M1_6 Smooth(Mn,1x2)
Method Blank B7G0067-BLK1 Method Blank 0.125


## 13C2-PFTeDA

170731M1_6 Smooth(Mn,1x2)
Method Blank B7G0067-BLK1 Method Blank 0.125 F59:MRM of 2 channels,ES


Reviewed: WJL 8/4/2017

## PFTrDA




13C2-PFTeDA
170731M1_6 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-


Quantify Sample Report
Vista Analytical Laboratory

## Dataset: U:\Q4.PRO\results\170731M1\170731M1-6.qld

Last Altered: Wednesday, August 02, 2017 08:41:59 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 08:42:19 Pacific Daylight Time

## Name: 170731M1_6, Date: 31-Jul-2017, Time: 12:52:41, ID: B7G0067-BLK1 Method Blank 0.125, Description: Method Blank

## 13C7-PFUnA

| 170731M1_6 Smooth(Mn,1x2) | F46:MRM of 1 channel, ES- |
| :--- | ---: |
| Method Blank B7G0067-BLK1 Method Blank 0.125 | $570.1>524.8$ |
| $100-\quad$ 13C7-PFUnA | $4.263 e+005$ |



| Dataset: | U:\Q4.PRO\results\170727M1\170727M1-56.qld |
| :--- | :--- |
| Last Altered: | Wednesday, August 02, 2017 15:10:40 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 15:11:43 Pacific Daylight Time |

Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_56, Date: 27-Jul-2017, Time: 21:29:46, ID: B7G0067-BS1 OPR 0.125, Description: OPR

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ | 3.68 e 3 | $2.62 e 3$ | 0.2500 |  | 2.96 | 2.90 | 17.6 | 37.1 | 92.8 |
| 2 | 4 PFHxA | 313.2 > 268.9 | 2.60 e 4 | 9.49 e 3 | 0.2500 |  | 3.19 | 3.15 | 13.7 | 37.3 | 93.3 |
| 3 | 5 PFHpA | $363>318.9$ | 2.00 e 4 | 2.10 e 4 | 0.2500 |  | 3.45 | 3.41 | 11.9 | 38.3 | 95.8 |
| 4 | 6 PFHxS | $398.9>79.6$ | 2.55 e 3 | 1.96 e 3 | 0.2500 |  | 3.56 | 3.48 | 16.3 | 39.0 | 97.5 |
| 5 | 7 PFOA | $413>368.7$ | 2.24 e 4 | 2.71 e 4 | 0.2500 |  | 3.65 | 3.61 | 10.4 | 41.6 | 104.0 |
| 6 | 9 PFNA | $462.9>418.8$ | 1.98 e 4 | 2.37 e 4 | 0.2500 |  | 3.83 | 3.79 | 10.4 | 38.7 | 96.7 |
| 7 | 11 PFOS | $499>79.9$ | 3.73 e 3 | 4.62 e 3 | 0.2500 |  | 3.89 | 3.83 | 10.1 | 37.6 | 93.9 |
| 8 | 12 PFDA | $513>468.8$ | 2.25 e 4 | 2.21 e 4 | 0.2500 |  | 4.01 | 3.96 | 12.7 | 40.7 | 101.8 |
| 9 | $13 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ | 4.72 e 3 | 3.83e3 | 0.2500 |  | 4.03 | 3.98 | 201 | 40.2 | 100.5 |
| 10 | $14 \mathrm{~N}-\mathrm{EtFOSAA}$ | $584.2>419$ | 3.50e3 | 3.81 e 3 | 0.2500 |  | 4.10 | 4.05 | 150 | 38.9 | 97.2 |
| 11 | 15 PFUnA | $562.9>518.9$ | 1.17e4 | 2.17 e 4 | 0.2500 |  | 4.11 | 4.12 | 6.78 | 41.8 | 104.5 |
| 12 | 17 PFDoA | $612.9>318.8$ | 1.32 e 3 | 1.98 e 3 | 0.2500 |  | 4.34 | 4.28 | 8.36 | 35.7 | 89.4 |
| 13 | 22 13C3-PFBS | $302>98.8$ | 2.62 e 3 | 2.89 e 4 | 0.2500 | 0.031 | 2.96 | 2.89 | 0.453 | 59.0 | 118.0 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 9.49 e 3 | 2.89 e 4 | 0.2500 | 0.275 | 3.19 | 3.14 | 1.64 | 23.9 | 119.3 |
| 15 | 24 13C4-PFHpA | $367.2>321.8$ | 2.10 e 4 | 2.89 e 4 | 0.2500 | 0.260 | 3.45 | 3.41 | 3.62 | 55.7 | 111.5 |
| 16 | 25 1802-PFHxS | $403>102.6$ | 1.96 e 3 | 4.21 e 3 | 0.2500 | 0.402 | 3.56 | 3.48 | 5.83 | 58.0 | 116.1 |
| 17 | 26 13C2-PFOA | 414.9 > 369.7 | 2.71 e 4 | 2.33 e 4 | 0.2500 | 1.042 | 3.65 | 3.61 | 14.5 | 55.9 | 111.7 |
| 18 | 27 13C5-PFNA | 468.2 > 422.9 | 2.37 e 4 | 2.85 e 4 | 0.2500 | 0.792 | 3.83 | 3.79 | 10.4 | 52.5 | 105.1 |
| 19 | 29 13C8-PFOS | $507>79.9$ | 4.62 e 3 | 3.82e3 | 0.2500 | 0.951 | 3.89 | 3.84 | 15.1 | 63.6 | 127.3 |

## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945

Dataset: U:\Q4.PRO\results\170727M1\170727M1-56.qld
Last Altered: Wednesday, August 02, 2017 15:10:40 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 15:11:59 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Name: 170727M1_56, Date: 27-Jul-2017, Time: 21:29:46, ID: B7G0067-BS1 OPR 0.125, Description: OPR

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 30 13C2-PFDA | $515.1>469.9$ | 2.21 e 4 | 2.90 e 4 | 0.2500 | 0.869 | 4.01 | 3.96 | 9.54 | 43.9 | 87.8 |
| 2 | 31 d3-N-MeFOSAA | $573.3>419$ | 3.83 e 3 | 2.79 e 4 | 0.2500 | 0.013 | 4.03 | 3.98 | 1.71 | 529 | 81.4 |
| 3 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 3.81 e 3 | 2.79 e 4 | 0.2500 | 0.013 | 4.12 | 4.05 | 1.70 | 536 | 82.5 |
| 4 | 33 13C2-PFUnA | $565>519.8$ | 2.17 e 4 | 2.79 e 4 | 0.2500 | 0.928 | 4.17 | 4.12 | 9.69 | 41.8 | 83.5 |
| 5 | 34 13C2-PFDoA | $615>569.7$ | 1.98 e 3 | 2.79 e 4 | 0.2500 | 0.071 | 4.34 | 4.28 | 0.885 | 49.8 | 99.6 |
| 6 | 37 13C5-PFHxA | $318>272.9$ | 2.89 e 4 | 2.89 e 4 | 0.2500 | 1.000 | 3.19 | 3.14 | 5.00 | 20.0 | 100.0 |
| 7 | 38 13C3-PFHxS | $401.9>79.9$ | 4.21 e 3 | 4.21 e 3 | 0.2500 | 1.000 | 3.56 | 3.48 | 12.5 | 50.0 | 100.0 |
| 8 | 39 13C8-PFOA | $421.3>376$ | 2.33 e 4 | 2.33 e 4 | 0.2500 | 1.000 | 3.65 | 3.61 | 12.5 | 50.0 | 100.0 |
| 9 | 40 13C9-PFNA | $472.2>426.9$ | 2.85 e 4 | 2.85 e 4 | 0.2500 | 1.000 | 3.83 | 3.79 | 12.5 | 50.0 | 100.0 |
| 10 | 41 13C4-PFOS | $503>79.9$ | 3.82 e 3 | 3.82e3 | 0.2500 | 1.000 | 3.89 | 3.84 | 12.5 | 50.0 | 100.0 |
| 11 | 42 13C6-PFDA | $519.1>473.7$ | 2.90 e 4 | 2.90 e 4 | 0.2500 | 1.000 | 4.01 | 3.96 | 12.5 | 50.0 | 100.0 |
| 12 | 43 13C7-PFUnA | $570.1>524.8$ | 2.79 e 4 | 2.79 e 4 | 0.2500 | 1.000 | 4.17 | 4.12 | 12.5 | 50.0 | 100.0 |
| 13 | 44 Total PFBS | $299>79.7$ | 3.68 e3 | $2.62 e 3$ | 0.2500 |  | 2.96 |  | 17.6 | 37.1 |  |
| 14 | 45 Total PFHxS | $398.9>79.6$ | 2.55 e 3 | 1.96 e 3 | 0.2500 |  | 3.52 |  | 16.3 | 39.0 |  |
| 15 | 46 Total PFOA | $413>368.7$ | 2.24 e 4 | 2.71 e 4 | 0.2500 |  | 3.65 |  | 10.4 | 41.6 |  |
| 16 | 47 Total PFOS | $499>79.9$ | 3.73 e 3 | 4.62 e 3 | 0.2500 |  | 3.89 |  | 10.1 | 37.6 |  |
| 17 | 48 Total N-Me-FOSAA | $570.1>419$ | 4.72 e 3 | 3.83 e 3 | 0.2500 |  | 4.03 |  | 201 | 40.2 |  |
| 18 | 49 Total N-EtFOSAA | $584.2>419$ | 3.50 e 3 | 3.81e3 | 0.2500 |  | 4.17 |  | 150 | 38.9 |  |

# Quantify Totals Report MassLynx MassLynx V4.1 SCN 945 

Dataset: U:\Q4.PRO\results\170727M1\170727M1-56.qld
Last Altered: Wednesday, August 02, 2017 15:10:40 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 15:11:43 Pacific Daylight Time

Method: U:|Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21
Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_56, Date: 27-Jul-2017, Time: 21:29:46, ID: B7G0067-BS1 OPR 0.125, Description: OPR
Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 3 PFBS | $299>79.7$ | 2.90 | 3681.017 | 2620.366 | 17.560 | bb | 37.1 |  |

Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | Conc. 1

## Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | Conc.

## Total PFOS

| \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |  |
| ---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 11 PFOS | $499>79.9$ | 3.83 | 3727.117 | 4617.682 | 10.089 | bb | 37.6 |

Total N-Me-FOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 13 N-MeFOSAA | $570.1>419$ | 3.98 | 4724.901 | 3828.989 | 200.522 | bb | 40.2 |

Total N-EtFOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | Conc. 1

Dataset:
U:\Q4.PRO\results\170727M1\170727M1-56.qld
Last Altered: Wednesday, August 02, 2017 15:10:40 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 15:11:43 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_56, Date: 27-Jul-2017, Time: 21:29:46, ID: B7G0067-BS1 OPR 0.125, Description: OPR

## Total PFBS



## PFHxA



13C2-PFHxA




13C4-PFHpA


Total PFHxS


1802-PFHxS


## Dataset: <br> U:\Q4.PRO\results\170727M1\170727M1-56.qld

Last Altered: Wednesday, August 02, 2017 15:10:40 Pacific Daylight Time Printed: Wednesday, August 02, 2017 15:11:43 Pacific Daylight Time

## Name: 170727M1_56, Date: 27-Jul-2017, Time: 21:29:46, ID: B7G0067-BS1 OPR 0.125, Description: OPR

## Total PFOA



## PFNA



F19:MRM of 2 channels,ES-8.031- 004


13C2-PFOA


Total PFOS

F30:MRM of 2 channels,ES-


13C8-PFOS


## PFDA



## Dataset: <br> U:\Q4.PRO\results\170727M1\170727M1-56.qld

Last Altered: Wednesday, August 02, 2017 15:10:40 Pacific Daylight Time Printed: Wednesday, August 02, 2017 15:11:43 Pacific Daylight Time

## Name: 170727M1_56, Date: 27-Jul-2017, Time: 21:29:46, ID: B7G0067-BS1 OPR 0.125, Description: OPR

\section*{PFUnA <br> 



13C2-PFUnA
F44:MRM of 1 channel,ES


## N-MeFOSAA



d3-N-MeFOSAA
F47:MRM of 1 channel,ES$573.3>419$ $5.576 \mathrm{e}+004$


N-EtFOSAA


d5-N-EtFOSAA



## Dataset: <br> U:\Q4.PRO\results\170727M1\170727M1-56.qld

Last Altered: Wednesday, August 02, 2017 15:10:40 Pacific Daylight Time Printed: Wednesday, August 02, 2017 15:11:43 Pacific Daylight Time

## Name: 170727M1_56, Date: 27-Jul-2017, Time: 21:29:46, ID: B7G0067-BS1 OPR 0.125, Description: OPR

## 13C5-PFHxA <br> 

## 13C4-PFOS



## 13C3-PFHxS



13C6-PFDA


13C8-PFOA


13C7-PFUnA


13C9-PFNA


## Quantify Sample Summary Report

Vista Analytical Laboratory

```
Dataset: U:\Q4.PRO\results\170731M1\170731M1-4.qld
```

Last Altered: Wednesday, August 02, 2017 08:35:37 Pacific Daylight Time Printed: Wednesday, August 02, 2017 08:37:59 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
## Name: 170731M1_4, Date: 31-Jul-2017, Time: 12:31:16, ID: B7G0067-BS1 OPR 0.125, Description: OPR

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | 18 PFTrDA | $662.9>618.9$ | $1.39 e 4$ | $1.91 e 3$ | 0.2500 |  | 4.50 | 4.46 | 91.0 | 36.9 | 92.1 |
| 2 | 19 PFTeDA | $712.9>668.8$ | $9.25 e 3$ | $1.07 e 4$ | 0.2500 |  | 4.68 | 4.64 | 10.8 | 41.3 | 103.1 |
| 3 | $35 ~ 13 C 2-P F T e D A ~$ | $714.8>669.6$ | $1.07 e 4$ | $2.33 e 4$ | 0.2500 | 0.762 | 4.68 | 4.64 | 5.73 | 30.1 | 60.2 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | $2.33 e 4$ | $2.33 e 4$ | 0.2500 | 1.000 | 4.17 | 4.13 | 12.5 | 50.0 | 100.0 |

## Dataset: <br> U:\Q4.PRO\results\170731M1\170731M1-4.qld

Last Altered: Wednesday, August 02, 2017 08:35:37 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 08:37:59 Pacific Daylight Time

Method: U:|Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_4, Date: 31-Jul-2017, Time: 12:31:16, ID: B7G0067-BS1 OPR 0.125, Description: OPR

## PFTeDA

170731M1_4 Smooth(Mn,1x2)
OPR B7G0067-BS1 OPR 0.125
125
PFTeDA;4.64;9.25e3;159051;bb


170731M1_4 Smooth(Mn,1x2)
OPR B7G0067-BS1 OPR 0.125


## 13C2-PFTeDA

170731M1_4 Smooth(Mn,1x2) OPR B7G0067-BS1 OPR 0.125


## PFTrDA



13C2-PFTeDA


## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945

Dataset:
U:\Q4.PRO\results\170731M1\170731M1-4.qld
Last Altered: Wednesday, August 02, 2017 08:35:37 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 08:37:59 Pacific Daylight Time

## Name: 170731M1_4, Date: 31-Jul-2017, Time: 12:31:16, ID: B7G0067-BS1 OPR 0.125, Description: OPR

## 13C7-PFUnA

170731M1 4 Smooth(Mn,1x2) F46:MRM of 1 channel,ES $\begin{array}{ll}\text { OPR B7G0067-BS1 OPR } 0.125 & 570.1>524.8 \\ 479\end{array}$


## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945

Last Altered: Wednesday, August 02, 2017 15:03:24 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 15:03:41 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_71, Date: 28-Jul-2017, Time: 00:11:55, ID: 1700871-01 EB03-20170712 0.12146, Description: EB03-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ |  | 2.99 e3 | 0.1215 |  | 2.96 |  |  |  |  |
| 2 | 4 PFHxA | $313.2>268.9$ |  | 1.06 e 4 | 0.1215 |  | 3.19 |  |  |  |  |
| 3 | 5 PFHpA | $363>318.9$ |  | 2.36 e 4 | 0.1215 |  | 3.45 |  |  |  |  |
| 4 | 6 PFHxS | $398.9>79.6$ | 6.31e-1 | 2.10 e 3 | 0.1215 |  | 3.56 | 3.49 | 0.00375 |  |  |
| 5 | 7 PFOA | $413>368.7$ |  | 3.10 e 4 | 0.1215 |  | 3.65 |  |  |  |  |
| 6 | 9 PFNA | $462.9>418.8$ |  | 2.32 e 4 | 0.1215 |  | 3.83 |  |  |  |  |
| 7 | 11 PFOS | $499>79.9$ |  | 5.39 e 3 | 0.1215 |  | 3.89 |  |  |  |  |
| 8 | 12 PFDA | $513>468.8$ |  | 2.57 e 4 | 0.1215 |  | 4.01 |  |  |  |  |
| 9 | 13 N-MeFOSAA | $570.1>419$ |  | 4.81 e 3 | 0.1215 |  | 4.03 |  |  |  |  |
| 10 | 14 N -EtFOSAA | $584.2>419$ |  | 4.85 e 3 | 0.1215 |  | 4.10 |  |  |  |  |
| 11 | 15 PFUnA | 562.9 > 518.9 |  | 2.49 e 4 | 0.1215 |  | 4.11 |  |  |  |  |
| 12 | 17 PFDoA | 612.9 > 318.8 |  | 2.12 e 3 | 0.1215 |  | 4.34 |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 2.99 e 3 | 3.27 e 4 | 0.1215 | 0.031 | 2.96 | 2.90 | 0.457 | 123 | 119.2 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 1.06 e 4 | 3.27 e 4 | 0.1215 | 0.275 | 3.19 | 3.14 | 1.62 | 48.5 | 117.7 |
| 15 | 24 13C4-PFHpA | $367.2>321.8$ | 2.36 e 4 | 3.27 e 4 | 0.1215 | 0.260 | 3.45 | 3.42 | 3.62 | 115 | 111.5 |
| 16 | 25 18O2-PFHxS | $403>102.6$ | 2.10 e 3 | 4.74 e 3 | 0.1215 | 0.402 | 3.56 | 3.48 | 5.55 | 114 | 110.3 |
| 17 | 26 13C2-PFOA | 414.9 > 369.7 | 3.10 e 4 | 2.45 e 4 | 0.1215 | 1.042 | 3.65 | 3.61 | 15.8 | 125 | 121.5 |
| 18 | 27 13C5-PFNA | $468.2>422.9$ | 2.32 e 4 | 3.06 e 4 | 0.1215 | 0.792 | 3.83 | 3.79 | 9.49 | 98.6 | 95.8 |
| 19 | 29 13C8-PFOS | $507>79.9$ | 5.39 e 3 | 4.81 e 3 | 0.1215 | 0.951 | 3.89 | 3.84 | 14.0 | 121 | 117.9 |

## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945
Dataset:
U:\Q4.PRO\results\170727M1\170727M1-71.qld
Last Altered: Wednesday, August 02, 2017 15:03:24 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 15:03:52 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Name: 170727M1_71, Date: 28-Jul-2017, Time: 00:11:55, ID: 1700871-01 EB03-20170712 0.12146, Description: EB03-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 30 13C2-PFDA | $515.1>469.9$ | 2.57e4 | 2.92e4 | 0.1215 | 0.869 | 4.01 | 3.96 | 11.0 | 104 | 101.1 |
| 2 | 31 d3-N-MeFOSAA | $573.3>419$ | 4.81 e 3 | 2.98 e 4 | 0.1215 | 0.013 | 4.03 | 3.98 | 2.02 | 1280 | 95.8 |
| 3 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 4.85 e 3 | 2.98 e 4 | 0.1215 | 0.013 | 4.12 | 4.05 | 2.03 | 1320 | 98.4 |
| 4 | 33 13C2-PFUnA | $565>519.8$ | 2.49 e 4 | 2.98 e 4 | 0.1215 | 0.928 | 4.17 | 4.12 | 10.4 | 92.7 | 90.1 |
| 5 | 34 13C2-PFDoA | $615>569.7$ | 2.12 e 3 | 2.98 e 4 | 0.1215 | 0.071 | 4.34 | 4.28 | 0.886 | 103 | 99.7 |
| 6 | 37 13C5-PFHxA | $318>272.9$ | 3.27 e 4 | 3.27 e 4 | 0.1215 | 1.000 | 3.19 | 3.14 | 5.00 | 41.2 | 100.0 |
| 7 | 38 13C3-PFHxS | $401.9>79.9$ | 4.74 e 3 | 4.74 e 3 | 0.1215 | 1.000 | 3.56 | 3.49 | 12.5 | 103 | 100.0 |
| 8 | 39 13C8-PFOA | $421.3>376$ | 2.45 e 4 | 2.45 e 4 | 0.1215 | 1.000 | 3.65 | 3.61 | 12.5 | 103 | 100.0 |
| 9 | 40 13C9-PFNA | $472.2>426.9$ | 3.06e4 | 3.06e4 | 0.1215 | 1.000 | 3.83 | 3.79 | 12.5 | 103 | 100.0 |
| 10 | 41 13C4-PFOS | $503>79.9$ | 4.81 e 3 | 4.81 e 3 | 0.1215 | 1.000 | 3.89 | 3.84 | 12.5 | 103 | 100.0 |
| 11 | 42 13C6-PFDA | $519.1>473.7$ | 2.92 e 4 | 2.92 e 4 | 0.1215 | 1.000 | 4.01 | 3.96 | 12.5 | 103 | 100.0 |
| 12 | 43 13C7-PFUnA | $570.1>524.8$ | 2.98e4 | 2.98 e 4 | 0.1215 | 1.000 | 4.17 | 4.12 | 12.5 | 103 | 100.0 |
| 13 | 44 Total PFBS | $299>79.7$ | 0.00e0 | 2.99 e 3 | 0.1215 |  | 2.96 |  | 0.000 |  |  |
| 14 | 45 Total PFHxS | $398.9>79.6$ | $6.31 \mathrm{e}-1$ | 2.10 e 3 | 0.1215 |  | 3.52 |  | 0.000 |  |  |
| 15 | 46 Total PFOA | $413>368.7$ | 0.00 e 0 | 3.10 e 4 | 0.1215 |  | 3.65 |  | 0.000 |  |  |
| 16 | 47 Total PFOS | $499>79.9$ | 0.00e0 | 5.39 e 3 | 0.1215 |  | 3.89 |  | 0.000 |  |  |
| 17 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00e0 | 4.81 e 3 | 0.1215 |  | 4.03 |  | 0.000 |  |  |
| 18 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00 e 0 | 4.85 e 3 | 0.1215 |  | 4.17 |  | 0.000 |  |  |

# Quantify Totals Report MassLynx MassLynx V4.1 SCN 945 

| Dataset: | U:\Q4.PRO\results\170727M1\170727M1-71.qld |
| :--- | :--- |
| Last Altered: | Wednesday, August 02, 2017 15:03:24 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 15:03:41 Pacific Daylight Time |

Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_71, Date: 28-Jul-2017, Time: 00:11:55, ID: 1700871-01 EB03-20170712 0.12146, Description: EB03-20170712
Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 |  |  |  |  |  | Conc. |  |

Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 6 PFHxS | $398.9>79.6$ | 3.49 | 0.631 | 2101.359 | 0.004 | MMI |  |

Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 7 PFOA | $413>368.7$ |  | 31037.689 | Conc. |  |  |

## Total PFOS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 |  |  |  |  |  |  |  |  |

Total N-Me-FOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | 13 N-MeFOSAA | $570.1>419$ |  | 4809.757 | Conc. |  |  |

Total N-EtFOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 14 N -EtFOSAA | $584.2>419$ |  | 4851.850 | Conc. |  |  |

Dataset: U:\Q4.PRO\results\170727M1\170727M1-71.qld
Last Altered: Wednesday, August 02, 2017 15:03:24 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 15:03:41 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_71, Date: 28-Jul-2017, Time: 00:11:55, ID: 1700871-01 EB03-20170712 0.12146, Description: EB03-20170712

\section*{Total PFBS <br> | F6:MRM of 2 channels,ES- |
| ---: |
| $299>79.7$ |
| $1.566 \mathrm{e}+002$ |}



13C3-PFBS


Reviewed: WJL 8/4/2017

PFHxA


13C2-PFHxA




1802-PFHxS


## Dataset: <br> U:\Q4.PRO\results\170727M1\170727M1-71.qld

Last Altered: Wednesday, August 02, 2017 15:03:24 Pacific Daylight Time Printed: Wednesday, August 02, 2017 15:03:41 Pacific Daylight Time

## Name: 170727M1_71, Date: 28-Jul-2017, Time: 00:11:55, ID: 1700871-01 EB03-20170712 0.12146, Description: EB03-20170712




## 13C2-PFOA



## PFNA




13C5-PFNA


Total PFOS


PFDA $\begin{array}{r}\text { F35:MRM of } 2 \text { channels,ES- } \\ 513>468.8 \\ 1.845 \mathrm{e}+003\end{array}$
F35:MRM of 2 channels,ES-
$513>219$
$7.059 \mathrm{e}+001$



## Dataset: U:\Q4.PRO\results\170727M1\170727M1-71.qld

Last Altered: Wednesday, August 02, 2017 15:03:24 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 15:03:41 Pacific Daylight Time

## Name: 170727M1_71, Date: 28-Jul-2017, Time: 00:11:55, ID: 1700871-01 EB03-20170712 0.12146, Description: EB03-20170712

## PFUnA



13C2-PFUnA


## N-MeFOSAA



N-EtFOSAA


d3-N-MeFOSAA
F47:MRM of 1 channel,ES$573.3>419$ $7.179 \mathrm{e}+004$

## PFDoA




## Dataset: <br> U:\Q4.PRO\results\170727M1\170727M1-71.qld

Last Altered: Wednesday, August 02, 2017 15:03:24 Pacific Daylight Time Printed: Wednesday, August 02, 2017 15:03:41 Pacific Daylight Time

Name: 170727M1_71, Date: 28-Jul-2017, Time: 00:11:55, ID: 1700871-01 EB03-20170712 0.12146, Description: EB03-20170712


## 13C4-PFOS



13C3-PFHxS


13C6-PFDA


13C8-PFOA


13C7-PFUnA


13C9-PFNA


## Quantify Sample Summary Report

 Vista Analytical LaboratoryMassLynx MassLynx V4.1 SCN 945

Dataset: U:\Q4.PRO\results\170731M1\170731M1-22.qld
Last Altered: Wednesday, August 02, 2017 16:05:52 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:08:54 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
## Name: 170731M1_22, Date: 31-Jul-2017, Time: 16:04:30, ID: 1700871-01 EB03-20170712 0.12146, Description: EB03-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 18 PFTrDA | $662.9>618.9$ |  | 1.65 e 3 | 0.1215 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | 1.25 e 4 | 0.1215 |  | 4.68 |  |  |  |  |
| 3 | $35 ~ 13 C 2-P F T e D A ~$ | $714.8>669.6$ | $1.25 e 4$ | 2.30 e 4 | 0.1215 | 0.762 | 4.68 | 4.65 | 6.77 | 73.1 | 71.0 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | $2.30 e 4$ | 2.30 e 4 | 0.1215 | 1.000 | 4.17 | 4.14 | 12.5 | 103 | 100.0 |

## Dataset: <br> U:\Q4.PRO\results\170731M1\170731M1-22.qld

Last Altered: Wednesday, August 02, 2017 16:05:52 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:08:54 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

## Name: 170731M1_22, Date: 31-Jul-2017, Time: 16:04:30, ID: 1700871-01 EB03-20170712 0.12146, Description: EB03-20170712

## PFTeDA

170731M1 22 Smooth(Mn,1x2)


170731M1_22 Smooth(Mn,1x2)
EB03-20170712 1700871-01 EB03-20170712 0.12146


## 13C2-PFTeDA

170731M1_22 Smooth(Mn,1x2)
EB03-20170712 1700871-01 EB03-20170712 0.12146


Reviewed: WJL 8/4/2017

## PFTrDA



13C2-PFTeDA
170731M1_22 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-EB03-20170712 1700871-01 EB03-20170712 $0.12146 \quad 714.8>669.6$


Quantify Sample Report
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\170731M1\170731M1-22.qld
Last Altered: Wednesday, August 02, 2017 16:05:52 Pacific Daylight Time
Printed:
Wednesday, August 02, 2017 16:08:54 Pacific Daylight Time

## Name: 170731M1_22, Date: 31-Jul-2017, Time: 16:04:30, ID: 1700871-01 EB03-20170712 0.12146, Description: EB03-20170712

## 13C7-PFUnA

170731M1_22 Smooth(Mn, 1x2) F46:MRM of 1 channel,ES-
EB03-20170712 1700871-01 EB03-20170712 $0.12146 \quad 570.1>524.8$


## Quantify Sample Summary Report

## Dataset: U:IQ4.PROTresults\170727M1\170727M1-72.qld

Last Altered: Thursday, August 03, 2017 13:49:30 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 13:54:28 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_72, Date: 28-Jul-2017, Time: 00:22:44, ID: 1700871-02 5-GW-05_DGMW41B-20170712 0.11547, Description: 5-GW-05_DGMW41B-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ | 2.30 e 2 | 2.78 e 3 | 0.115 |  | 2.96 | 2.90 | 1.03 | 4.19 |  |
| 2 | 4 PFHxA | 313.2 > 268.9 | 3.14 e 3 | 9.63 e3 | 0.115 |  | 3.19 | 3.15 | 1.63 | 8.79 |  |
| 3 | 5 PFHpA | $363>318.9$ | 1.12 e 3 | 2.25 e4 | 0.115 |  | 3.45 | 3.41 | 0.625 | 3.60 |  |
| 4 | 6 PFHxS | $398.9>79.6$ | 3.83 e 2 | 1.99 e3 | 0.115 |  | 3.56 | 3.48 | 2.41 | 11.2 |  |
| 5 | 7 PFOA | $413>368.7$ | 7.49 e 3 | 2.87 e 4 | 0.115 |  | 3.65 | 3.61 | 3.26 | 27.3 |  |
| 6 | 9 PFNA | $462.9>418.8$ |  | 2.23 e4 | 0.115 |  | 3.83 |  |  |  |  |
| 7 | 11 PFOS | $499>79.9$ | 2.05 e 2 | 4.43 e 3 | 0.115 |  | 3.89 | 3.77 | 0.579 | 4.13 |  |
| 8 | 12 PFDA | $513>468.8$ |  | 2.26 e 4 | 0.115 |  | 4.01 |  |  |  |  |
| 9 | $13 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ |  | 4.18 e 3 | 0.115 |  | 4.03 |  |  |  |  |
| 10 | 14 N -EtFOSAA | $584.2>419$ |  | 4.36 e 3 | 0.115 |  | 4.10 |  |  |  |  |
| 11 | 15 PFUnA | $562.9>518.9$ |  | 2.28 e 4 | 0.115 |  | 4.11 |  |  |  |  |
| 12 | 17 PFDoA | $612.9>318.8$ |  | 1.86 e 3 | 0.115 |  | 4.34 |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 2.78 e 3 | 3.14 e 4 | 0.115 | 0.031 | 2.96 | 2.89 | 0.444 | 125 | 115.7 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 9.63 e 3 | 3.14 e 4 | 0.115 | 0.275 | 3.19 | 3.14 | 1.54 | 48.3 | 111.7 |
| 15 | 24 13C4-PFHpA | 367.2 > 321.8 | 2.25 e 4 | 3.14 e 4 | 0.115 | 0.260 | 3.45 | 3.41 | 3.58 | 119 | 110.3 |
| 16 | 25 18O2-PFHxS | $403>102.6$ | 1.99 e 3 | 4.78 e 3 | 0.115 | 0.402 | 3.56 | 3.48 | 5.21 | 112 | 103.6 |
| 17 | 26 13C2-PFOA | $414.9>369.7$ | 2.87 e 4 | 2.58 e 4 | 0.115 | 1.042 | 3.65 | 3.61 | 13.9 | 116 | 106.7 |
| 18 | 27 13C5-PFNA | 468.2 > 422.9 | 2.23 e 4 | 2.95 e 4 | 0.115 | 0.792 | 3.83 | 3.79 | 9.46 | 103 | 95.6 |

## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN945 SCN960

Last Altered: Thursday, August 03, 2017 13:49:30 Pacific Daylight Time Printed: Thursday, August 03, 2017 13:54:42 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_72, Date: 28-Jul-2017, Time: 00:22:44, ID: 1700871-02 5-GW-05_DGMW41B-20170712 0.11547, Description: 5-GW-05_DGMW41B-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 29 13C8-PFOS | $507>79.9$ | 4.43 e 3 | 4.27 e 3 | 0.115 | 0.951 | 3.89 | 3.84 | 13.0 | 118 | 109.2 |
| 2 | 30 13C2-PFDA | $515.1>469.9$ | 2.26 e4 | 2.74 e 4 | 0.115 | 0.869 | 4.01 | 3.95 | 10.3 | 103 | 95.1 |
| 3 | 31 d3-N-MeFOSAA | $573.3>419$ | 4.18 e 3 | 2.54 e 4 | 0.115 | 0.013 | 4.03 | 3.99 | 2.06 | 1380 | 97.8 |
| 4 | $32 \mathrm{~d} 5-\mathrm{N}$-EtFOSAA | $589.3>419$ | 4.36 e 3 | 2.54 e 4 | 0.115 | 0.013 | 4.12 | 4.05 | 2.15 | 1460 | 103.9 |
| 5 | 33 13C2-PFUnA | $565>519.8$ | 2.28 e 4 | 2.54 e 4 | 0.115 | 0.928 | 4.17 | 4.12 | 11.2 | 105 | 96.8 |
| 6 | 34 13C2-PFDoA | $615>569.7$ | 1.86 e 3 | 2.54 e 4 | 0.115 | 0.071 | 4.34 | 4.28 | 0.915 | 111 | 103.0 |
| 7 | 37 13C5-PFHxA | $318>272.9$ | 3.14 e 4 | 3.14 e 4 | 0.115 | 1.000 | 3.19 | 3.14 | 5.00 | 43.3 | 100.0 |
| 8 | 38 13C3-PFHxS | $401.9>79.9$ | 4.78 e 3 | 4.78 e 3 | 0.115 | 1.000 | 3.56 | 3.48 | 12.5 | 108 | 100.0 |
| 9 | 39 13C8-PFOA | $421.3>376$ | 2.58 e 4 | 2.58 e 4 | 0.115 | 1.000 | 3.65 | 3.61 | 12.5 | 108 | 100.0 |
| 10 | 40 13C9-PFNA | $472.2>426.9$ | 2.95 e 4 | 2.95 e 4 | 0.115 | 1.000 | 3.83 | 3.79 | 12.5 | 108 | 100.0 |
| 11 | 41 13C4-PFOS | $503>79.9$ | 4.27 e 3 | 4.27 e3 | 0.115 | 1.000 | 3.89 | 3.84 | 12.5 | 108 | 100.0 |
| 12 | 42 13C6-PFDA | $519.1>473.7$ | 2.74 e 4 | 2.74 e 4 | 0.115 | 1.000 | 4.01 | 3.96 | 12.5 | 108 | 100.0 |
| 13 | 43 13C7-PFUnA | $570.1>524.8$ | 2.54 e 4 | 2.54 e 4 | 0.115 | 1.000 | 4.17 | 4.12 | 12.5 | 108 | 100.0 |
| 14 | 44 Total PFBS | $299>79.7$ | 2.30 e 2 | 2.78 e3 | 0.115 |  | 2.96 |  | 1.03 | 4.19 |  |
| 15 | 45 Total PFHxS | $398.9>79.6$ | 3.83 e 2 | 1.99 e 3 | 0.115 |  | 3.52 |  | 2.41 | 11.2 |  |
| 16 | 46 Total PFOA | $413>368.7$ | 8.00 e 3 | 2.87 e 4 | 0.115 |  | 3.65 |  | 3.48 | 27.8 |  |
| 17 | 47 Total PFOS | $499>79.9$ | 2.05 e 2 | 4.43 e 3 | 0.115 |  | 3.89 |  | 0.579 | 4.13 |  |
| 18 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00e0 | 4.18 e 3 | 0.115 |  | 4.03 |  | 0.000 |  |  |
| 19 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00e0 | 4.36 e 3 | 0.115 |  | 4.17 |  | 0.000 |  |  |

## Quantify Totals Report MassLynx MassLynx V4.1 SCN945 SCN960

## Dataset: U:IQ4.PRO\results\170727M1\170727M1-72.qld

Last Altered: Thursday, August 03, 2017 13:49:30 Pacific Daylight Time Printed: Thursday, August 03, 2017 13:54:28 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_72, Date: 28-Jul-2017, Time: 00:22:44, ID: 1700871-02 5-GW-05_DGMW41B-20170712 0.11547, Description: 5-GW-05_DGMW41B-20170712

## Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | 3 PFBS | $299>79.7$ | 2.90 | 230.376 | 2784.345 | 1.034 | $M M$ | 4.2 |

## Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | 6 PFHxS | $398.9>79.6$ | 3.48 | 382.846 | 1988.701 | 2.406 | bb | 11.2 |

## Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 7 PFOA | $413>368.7$ | 3.61 | 7489.734 | 28716.662 | 3.260 | $M M$ | 27.3 |
| 2 | 46 Total PFOA | $413>368.7$ | 3.57 | 506.851 | 28716.662 | 0.221 | $M M$ | 0.4 |

## Total PFOS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 11 PFOS | $499>79.9$ | 3.77 | 205.160 | 4432.725 | 0.579 | bb | 4.1 |

Total N-Me-FOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 13 N-MeFOSAA | $570.1>419$ |  |  | 4177.033 |  | MM-I |  |
| Total N-EtFOSAA |  |  |  |  |  |  |  |  |
|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| 1 | $14 \mathrm{~N}-\mathrm{EtFOSAA}$ | $584.2>419$ |  |  | 4357.655 |  | MM-I |  |

## Dataset: U:IQ4.PROTresults\170727M11170727M1-72.qld

Last Altered: Thursday, August 03, 2017 13:49:30 Pacific Daylight Time
Printed: Thursday, August 03, 2017 13:54:28 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Name: 170727M1_72, Date: 28-Jul-2017, Time: 00:22:44, ID: 1700871-02 5-GW-05_DGMW41B-20170712 0.11547, Description: 5-GW-05_DGMW41B-20170712

\section*{Total PFBS <br> 



13C3-PFBS



## PFHpA




13C4-PFHpA


Total PFHxS


1802-PFHxS


## Dataset:

U:\Q4.PRO\results1170727M11170727M1-72.qld
Last Altered: Thursday, August 03, 2017 13:49:30 Pacific Daylight Time
Printed: Thursday, August 03, 2017 13:54:28 Pacific Daylight Time

## Name: 170727M1_72, Date: 28-Jul-2017, Time: 00:22:44, ID: 1700871-02 5-GW-05_DGMW41B-20170712 0.11547, Description: 5-GW-05_DGMW41B-20170712

\section*{Total PFOA <br> 



13C2-PFOA



13C5-PFNA


## Total PFOS



13C8-PFOS


PFDA


13C2-PFDA


## Dataset:

U:\Q4.PRO\results1170727M11170727M1-72.qld
Last Altered: Thursday, August 03, 2017 13:49:30 Pacific Daylight Time
Printed: Thursday, August 03, 2017 13:54:28 Pacific Daylight Time

Name: 170727M1_72, Date: 28-Jul-2017, Time: 00:22:44, ID: 1700871-02 5-GW-05_DGMW41B-20170712 0.11547, Description: 5-GW-05_DGMW41B-20170712

## PFUnA



13C2-PFUnA


N-MeFOSAA

d3-N-MeFOSAA
F47:MRM of 1 channel,ES-


d5-N-EtFOSAA



## Dataset:

U:IQ4.PRO|results1170727M11170727M1-72.qld
Last Altered: Thursday, August 03, 2017 13:49:30 Pacific Daylight Time
Printed: Thursday, August 03, 2017 13:54:28 Pacific Daylight Time

Name: 170727M1_72, Date: 28-Jul-2017, Time: 00:22:44, ID: 1700871-02 5-GW-05_DGMW41B-20170712 0.11547, Description: 5-GW-05_DGMW41B-20170712

## 13C5-PFHxA

| F10:MRM of 1 channel,ES- |
| :---: |
| $318>272.9$ |
| $6.128 \mathrm{e}+005$ |

## 13C4-PFOS



13C3-PFHxS


13C6-PFDA


13C8-PFOA


13C9-PFNA


## Quantify Sample Summary Report

Vista Analytical Laboratory

```
Dataset: U:\Q4.PRO\results\170731M1\170731M1-23.qld
```

Last Altered: Wednesday, August 02, 2017 16:09:52 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 16:10:22 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19Name: 170731M1_23, Date: 31-Jul-2017, Time: 16:15:16, ID: 1700871-02 5-GW-05_DGMW41B-20170712 0.11547, Description: 5-GW-05_DGMW41B-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 18 PFTrDA | $662.9>618.9$ |  | 1.53 e 3 | 0.1155 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | $9.25 e 3$ | 0.1155 |  | 4.68 |  |  |  |  |
| 3 | $35 ~ 13 C 2-P F T e D A ~$ | $714.8>669.6$ | 9.25 e 3 | 2.20 e 4 | 0.1155 | 0.762 | 4.68 | 4.65 | 5.27 | 59.8 | 55.3 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | 2.20 e 4 | 2.20 e 4 | 0.1155 | 1.000 | 4.17 | 4.14 | 12.5 | 108 | 100.0 |

## Dataset: <br> U:\Q4.PRO\results\170731M1\170731M1-23.qld

Last Altered: Wednesday, August 02, 2017 16:09:52 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:10:22 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_23, Date: 31-Jul-2017, Time: 16:15:16, ID: 1700871-02 5-GW-05_DGMW41B-20170712 0.11547, Description: 5-GW-05_DGMW41B-20170712


## 13C2-PFTeDA

170731M1_23 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-


Reviewed: WJL 8/4/2017

PFTrDA


170731M1_23 Smooth(Mn,1x2)
F57:MRM of 2 channels,ES$662.9>319$


13C2-PFTeDA
170731M1_23 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-


Quantify Sample Report
Vista Analytical Laboratory

## Dataset: U:\Q4.PRO\results\170731M1\170731M1-23.qld

Last Altered: Wednesday, August 02, 2017 16:09:52 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:10:22 Pacific Daylight Time

## Name: 170731M1_23, Date: 31-Jul-2017, Time: 16:15:16, ID: 1700871-02 5-GW-05_DGMW41B-20170712 0.11547, Description: 5-GW-05_DGMW41B-20170712

## 13C7-PFUnA

170731M1_23 Smooth(Mn, 1x2) F46:MRM of 1 channel,ES-


## Quantify Sample Summary Report

## Dataset: U:IQ4.PRO\results\170727M1\170727M1-73.qld

Last Altered: Thursday, August 03, 2017 13:56:10 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 13:56:30 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_73, Date: 28-Jul-2017, Time: 00:33:31, ID: 1700871-03 18-GW-18BGM03E-20170712 0.11765, Description: 18-GW-18BGM03E-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ |  | 2.78 e 3 | 0.118 |  | 2.96 |  |  |  |  |
| 2 | 4 PFHxA | 313.2 > 268.9 | 2.80 e3 | 9.65 e3 | 0.118 |  | 3.19 | 3.15 | 1.45 | 7.61 |  |
| 3 | 5 PFHpA | $363>318.9$ | 3.65 e 2 | 2.36 e 4 | 0.118 |  | 3.45 | 3.41 | 0.193 | 0.559 |  |
| 4 | 6 PFHxS | $398.9>79.6$ | 1.21 e 2 | 2.05 e 3 | 0.118 |  | 3.56 | 3.48 | 0.735 | 2.38 |  |
| 5 | 7 PFOA | $413>368.7$ | 1.36 e 3 | 2.94 e 4 | 0.118 |  | 3.65 | 3.61 | 0.577 | 3.53 |  |
| 6 | 9 PFNA | $462.9>418.8$ |  | 2.36 e 4 | 0.118 |  | 3.83 |  |  |  |  |
| 7 | 11 PFOS | $499>79.9$ |  | 4.75 e 3 | 0.118 |  | 3.89 |  |  |  |  |
| 8 | 12 PFDA | $513>468.8$ |  | 2.40 e 4 | 0.118 |  | 4.01 |  |  |  |  |
| 9 | $13 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ |  | 4.38 e 3 | 0.118 |  | 4.03 |  |  |  |  |
| 10 | $14 \mathrm{~N}-\mathrm{EtFOSAA}$ | $584.2>419$ |  | 4.57 e 3 | 0.118 |  | 4.10 |  |  |  |  |
| 11 | 15 PFUnA | $562.9>518.9$ |  | 2.54 e 4 | 0.118 |  | 4.11 |  |  |  |  |
| 12 | 17 PFDoA | $612.9>318.8$ |  | 2.07e3 | 0.118 |  | 4.34 |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 2.78 e 3 | 3.28 e 4 | 0.118 | 0.031 | 2.96 | 2.90 | 0.424 | 117 | 110.5 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 9.65 e 3 | 3.28 e 4 | 0.118 | 0.275 | 3.19 | 3.15 | 1.47 | 45.5 | 107.0 |
| 15 | 24 13C4-PFHpA | 367.2 > 321.8 | 2.36 e 4 | 3.28 e 4 | 0.118 | 0.260 | 3.45 | 3.41 | 3.60 | 118 | 110.7 |
| 16 | 25 18O2-PFHxS | $403>102.6$ | 2.05 e 3 | 4.55 e 3 | 0.118 | 0.402 | 3.56 | 3.49 | 5.64 | 119 | 112.1 |
| 17 | 26 13C2-PFOA | $414.9>369.7$ | 2.94 e 4 | $2.62 e 4$ | 0.118 | 1.042 | 3.65 | 3.61 | 14.0 | 114 | 107.5 |
| 18 | 27 13C5-PFNA | $468.2>422.9$ | 2.36 e 4 | 2.86 e 4 | 0.118 | 0.792 | 3.83 | 3.79 | 10.3 | 111 | 104.3 |

## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN945 SCN960

## Dataset: U:IQ4.PROTresults\170727M1\170727M1-73.qld

Last Altered: Thursday, August 03, 2017 13:56:10 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 13:56:42 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_73, Date: 28-Jul-2017, Time: 00:33:31, ID: 1700871-03 18-GW-18BGM03E-20170712 0.11765, Description: 18-GW-18BGM03E-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 29 13C8-PFOS | $507>79.9$ | 4.75 e 3 | 4.32 e 3 | 0.118 | 0.951 | 3.89 | 3.84 | 13.7 | 123 | 115.5 |
| 2 | 30 13C2-PFDA | $515.1>469.9$ | 2.40 e 4 | 2.90 e 4 | 0.118 | 0.869 | 4.01 | 3.96 | 10.4 | 102 | 95.5 |
| 3 | 31 d3-N-MeFOSAA | $573.3>419$ | 4.38 e 3 | 3.06 e 4 | 0.118 | 0.013 | 4.03 | 3.98 | 1.79 | 1170 | 85.0 |
| 4 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 4.57 e 3 | 3.06 e 4 | 0.118 | 0.013 | 4.12 | 4.05 | 1.87 | 1250 | 90.4 |
| 5 | 33 13C2-PFUnA | $565>519.8$ | 2.54 e 4 | 3.06 e 4 | 0.118 | 0.928 | 4.17 | 4.12 | 10.4 | 95.0 | 89.4 |
| 6 | 34 13C2-PFDoA | $615>569.7$ | 2.07e3 | 3.06 e 4 | 0.118 | 0.071 | 4.34 | 4.28 | 0.846 | 101 | 95.2 |
| 7 | 37 13C5-PFHXA | $318>272.9$ | 3.28 e 4 | 3.28 e 4 | 0.118 | 1.000 | 3.19 | 3.14 | 5.00 | 42.5 | 100.0 |
| 8 | 38 13C3-PFHxS | $401.9>79.9$ | 4.55 e 3 | 4.55 e 3 | 0.118 | 1.000 | 3.56 | 3.48 | 12.5 | 106 | 100.0 |
| 9 | 39 13C8-PFOA | $421.3>376$ | 2.62 e 4 | 2.62 e 4 | 0.118 | 1.000 | 3.65 | 3.61 | 12.5 | 106 | 100.0 |
| 10 | 40 13C9-PFNA | $472.2>426.9$ | 2.86 e 4 | 2.86 e 4 | 0.118 | 1.000 | 3.83 | 3.79 | 12.5 | 106 | 100.0 |
| 11 | 41 13C4-PFOS | $503>79.9$ | 4.32 e 3 | 4.32 e 3 | 0.118 | 1.000 | 3.89 | 3.84 | 12.5 | 106 | 100.0 |
| 12 | 42 13C6-PFDA | $519.1>473.7$ | 2.90 e 4 | 2.90 e 4 | 0.118 | 1.000 | 4.01 | 3.96 | 12.5 | 106 | 100.0 |
| 13 | 43 13C7-PFUnA | $570.1>524.8$ | 3.06 e 4 | 3.06 e 4 | 0.118 | 1.000 | 4.17 | 4.12 | 12.5 | 106 | 100.0 |
| 14 | 44 Total PFBS | $299>79.7$ | 0.00e0 | 2.78 e 3 | 0.118 |  | 2.96 |  | 0.000 |  |  |
| 15 | 45 Total PFHxS | $398.9>79.6$ | 1.21 e 2 | 2.05 e 3 | 0.118 |  | 3.52 |  | 0.735 | 2.38 |  |
| 16 | 46 Total PFOA | $413>368.7$ | 1.36 e 3 | 2.94 e 4 | 0.118 |  | 3.65 |  | 0.577 | 3.53 |  |
| 17 | 47 Total PFOS | $499>79.9$ | 0.00 e 0 | 4.75 e 3 | 0.118 |  | 3.89 |  | 0.000 |  |  |
| 18 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00 e 0 | 4.38 e 3 | 0.118 |  | 4.03 |  | 0.000 |  |  |
| 19 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00 e 0 | 4.57 e 3 | 0.118 |  | 4.17 |  | 0.000 |  |  |

## Quantify Totals Report MassLynx MassLynx V4.1 SCN945 SCN960

## Dataset: U:IQ4.PRO\results\170727M1\170727M1-73.qld

Last Altered: Thursday, August 03, 2017 13:56:10 Pacific Daylight Time Printed: Thursday, August 03, 2017 13:56:30 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
## Name: 170727M1_73, Date: 28-Jul-2017, Time: 00:33:31, ID: 1700871-03 18-GW-18BGM03E-20170712 0.11765, Description: 18-GW-18BGM03E-20170712

## Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response Primary Flags |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | 3 PFBS | $299>79.7$ |  | Conc. |  |  |

## Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| 1 | 6 PFHxS | $398.9>79.6$ | 3.48 | 120.816 | 2053.514 | 0.735 | MM | 2.4 |

## Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 7 PFOA | 413 > 368.7 | 3.61 | 1356.579 | 29408.689 | 0.577 | bb | 3.5 |

## Total PFOS

| 4 | \# Name | Trace | RT | Area | IS Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  | Response Primary Flags |  |  |

## Total N-Me-FOSAA

|  | \# Name | Trace | RT | Area | IS Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  | Response Primary Flags |  |  |

## Total N-EtFOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response Primary Flags |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 |  |  |  |  |  |  |

## Dataset: <br> U:IQ4.PRO|results1170727M11170727M1-73.qld

Last Altered: Thursday, August 03, 2017 13:56:10 Pacific Daylight Time
Printed: Thursday, August 03, 2017 13:56:30 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Name: 170727M1_73, Date: 28-Jul-2017, Time: 00:33:31, ID: 1700871-03 18-GW-18BGM03E-20170712 0.11765, Description: 18-GW-18BGM03E-20170712

\section*{Total PFBS <br> 



13C3-PFBS



13C2-PFHxA


PFHpA



13C4-PFHpA
Total PFHxS


1802-PFHxS


## Dataset:

U:\Q4.PRO\results1170727M11170727M1-73.qld
Last Altered: Thursday, August 03, 2017 13:56:10 Pacific Daylight Time
Printed: Thursday, August 03, 2017 13:56:30 Pacific Daylight Time

## Name: 170727M1_73, Date: 28-Jul-2017, Time: 00:33:31, ID: 1700871-03 18-GW-18BGM03E-20170712 0.11765, Description: 18-GW-18BGM03E-20170712

## Total PFOA <br> 



## Total PFOS



F30:MRM of 2 channels,ES$499>99$
$1.000 \mathrm{e}-003$
100

13C8-PFOS


## PFDA



13C2-PFDA


## Dataset:

U:\Q4.PRO\results1170727M11170727M1-73.qld
Last Altered: Thursday, August 03, 2017 13:56:10 Pacific Daylight Time
Printed: Thursday, August 03, 2017 13:56:30 Pacific Daylight Time

## Name: 170727M1_73, Date: 28-Jul-2017, Time: 00:33:31, ID: 1700871-03 18-GW-18BGM03E-20170712 0.11765, Description: 18-GW-18BGM03E-20170712

## PFUnA




13C2-PFUnA

## N-MeFOSAA


d3-N-MeFOSAA
F47:MRM of 1 channel,ES-


## N-EtFOSAA



d5-N-EtFOSAA


PFDoA


F51:MRM of 2 channels,ES


13C2-PFDoA


## Dataset:

U:IQ4.PRO|results1170727M11170727M1-73.qld
Last Altered: Thursday, August 03, 2017 13:56:10 Pacific Daylight Time
Printed: $\quad$ Thursday, August 03, 2017 13:56:30 Pacific Daylight Time

## Name: 170727M1_73, Date: 28-Jul-2017, Time: 00:33:31, ID: 1700871-03 18-GW-18BGM03E-20170712 0.11765, Description: 18-GW-18BGM03E-20170712

## 13C5-PFHxA



## 13C4-PFOS



13C3-PFHxS


13C6-PFDA


13C8-PFOA


13C9-PFNA

## Quantify Sample Summary Report

Vista Analytical Laboratory

```
Dataset: U:\Q4.PRO\results\170731M1\170731M1-24.qld
```

Last Altered: Wednesday, August 02, 2017 16:11:16 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:11:27 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19Name: 170731M1_24, Date: 31-Jul-2017, Time: 16:25:55, ID: 1700871-03 18-GW-18BGM03E-20170712 0.11765, Description: 18-GW-18BGM03E-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 18 PFTrDA | $662.9>618.9$ |  | $1.31 e 3$ | 0.1177 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | $8.96 e 3$ | 0.1177 |  | 4.68 |  |  |  |  |
| 3 | $35 ~ 13 C 2-P F T e D A ~$ | $714.8>669.6$ | 8.96 e 3 | 2.09 e 4 | 0.1177 | 0.762 | 4.68 | 4.65 | 5.36 | 59.8 | 56.3 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | 2.09 e 4 | 2.09 e 4 | 0.1177 | 1.000 | 4.17 | 4.14 | 12.5 | 106 | 100.0 |

## Dataset: <br> U:\Q4.PRO\results\170731M1\170731M1-24.qld

Last Altered: Wednesday, August 02, 2017 16:11:16 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 16:11:27 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_24, Date: 31-Jul-2017, Time: 16:25:55, ID: 1700871-03 18-GW-18BGM03E-20170712 0.11765, Description: 18-GW-18BGM03E-20170712


## 13C2-PFTeDA

170731M1_24 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-


Reviewed: WJL 8/4/2017

## PFTrDA



13C2-PFTeDA
170731M1_24 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-


## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945
$\begin{array}{ll} & \\ \text { Last Altered: } & \text { Wednesday, August 02, } 2017 \text { 16:11:16 Pacific Daylight Time } \\ \text { Printed: } & \text { Wednesday, August 02, } 2017 \text { 16:11:27 Pacific Daylight Time }\end{array}$

Name: 170731M1_24, Date: 31-Jul-2017, Time: 16:25:55, ID: 1700871-03 18-GW-18BGM03E-20170712 0.11765, Description: 18-GW-18BGM03E-20170712

## 13C7-PFUnA

170731M1_24 Smooth(Mn,1x2) F46:MRM of 1 channel,ES-


## Quantify Sample Summary Report

## Dataset: U:IQ4.PROTresults\170727M1\170727M1-74.qld

Last Altered: Thursday, August 03, 2017 13:59:05 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 13:59:16 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_74, Date: 28-Jul-2017, Time: 00:44:15, ID: 1700871-04 24-GW-24IN03-20170712 0.11741, Description: 24-GW-24IN03-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ | 6.47 e 2 | 3.85e3 | 0.117 |  | 2.96 | 2.90 | 2.10 | 8.97 |  |
| 2 | 4 PFHxA | $313.2>268.9$ | 1.89e4 | 1.31 e 4 | 0.117 |  | 3.19 | 3.14 | 7.18 | 41.2 |  |
| 3 | 5 PFHpA | $363>318.9$ | 2.36 e 3 | 3.03 e 4 | 0.117 |  | 3.45 | 3.41 | 0.973 | 5.95 |  |
| 4 | 6 PFHxS | $398.9>79.6$ | 9.13 e 2 | 2.91 e3 | 0.117 |  | 3.56 | 3.49 | 3.92 | 18.9 |  |
| 5 | 7 PFOA | $413>368.7$ | 1.36 e 4 | 3.54 e 4 | 0.117 |  | 3.65 | 3.61 | 4.80 | 40.3 |  |
| 6 | 9 PFNA | $462.9>418.8$ |  | 3.11 e 4 | 0.117 |  | 3.83 |  |  |  |  |
| 7 | 11 PFOS | $499>79.9$ |  | $5.62 e 3$ | 0.117 |  | 3.89 |  |  |  |  |
| 8 | 12 PFDA | $513>468.8$ |  | 2.68 e 4 | 0.117 |  | 4.01 |  |  |  |  |
| 9 | $13 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ |  | 5.36 e 3 | 0.117 |  | 4.03 |  |  |  |  |
| 10 | $14 \mathrm{~N}-\mathrm{EtFOSAA}$ | $584.2>419$ |  | 4.09 e 3 | 0.117 |  | 4.10 |  |  |  |  |
| 11 | 15 PFUnA | $562.9>518.9$ |  | $2.70 \mathrm{e}^{4}$ | 0.117 |  | 4.11 |  |  |  |  |
| 12 | 17 PFDoA | $612.9>318.8$ |  | 2.02 e 3 | 0.117 |  | 4.34 |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 3.85 e 3 | 4.16 e 4 | 0.117 | 0.031 | 2.96 | 2.89 | 0.463 | 128 | 120.7 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 1.31 e 4 | 4.16 e 4 | 0.117 | 0.275 | 3.19 | 3.14 | 1.58 | 48.9 | 114.8 |
| 15 | 24 13C4-PFHpA | 367.2 > 321.8 | 3.03 e 4 | 4.16 e 4 | 0.117 | 0.260 | 3.45 | 3.41 | 3.64 | 119 | 112.0 |
| 16 | 25 18O2-PFHxS | $403>102.6$ | 2.91 e 3 | 6.10 e 3 | 0.117 | 0.402 | 3.56 | 3.48 | 5.97 | 126 | 118.8 |
| 17 | 26 13C2-PFOA | $414.9>369.7$ | 3.54 e 4 | 3.15 e 4 | 0.117 | 1.042 | 3.65 | 3.61 | 14.0 | 115 | 107.8 |
| 18 | 27 13C5-PFNA | $468.2>422.9$ | 3.11 e 4 | 3.56 e 4 | 0.117 | 0.792 | 3.83 | 3.79 | 10.9 | 117 | 110.3 |

## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN945 SCN960

## Dataset: U:IQ4.PROTresults\170727M1\170727M1-74.qld

Last Altered: Thursday, August 03, 2017 13:59:05 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 13:59:28 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_74, Date: 28-Jul-2017, Time: 00:44:15, ID: 1700871-04 24-GW-24IN03-20170712 0.11741, Description: 24-GW-24IN03-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 29 13C8-PFOS | $507>79.9$ | 5.62 e 3 | 5.51e3 | 0.117 | 0.951 | 3.89 | 3.84 | 12.7 | 114 | 107.3 |
| 2 | 30 13C2-PFDA | $515.1>469.9$ | 2.68 e4 | 3.29 e 4 | 0.117 | 0.869 | 4.01 | 3.96 | 10.2 | 100 | 94.0 |
| 3 | 31 d3-N-MeFOSAA | $573.3>419$ | 5.36 e 3 | 2.87 e 4 | 0.117 | 0.013 | 4.03 | 3.99 | 2.34 | 1540 | 111.1 |
| 4 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 4.09 e 3 | 2.87 e 4 | 0.117 | 0.013 | 4.12 | 4.05 | 1.78 | 1190 | 86.2 |
| 5 | 33 13C2-PFUnA | $565>519.8$ | 2.70 e 4 | 2.87 e 4 | 0.117 | 0.928 | 4.17 | 4.12 | 11.8 | 108 | 101.3 |
| 6 | 34 13C2-PFDoA | $615>569.7$ | 2.02 e 3 | 2.87 e 4 | 0.117 | 0.071 | 4.34 | 4.29 | 0.879 | 105 | 98.9 |
| 7 | 37 13C5-PFHXA | $318>272.9$ | 4.16 e 4 | 4.16 e 4 | 0.117 | 1.000 | 3.19 | 3.14 | 5.00 | 42.6 | 100.0 |
| 8 | 38 13C3-PFHxS | $401.9>79.9$ | 6.10 e 3 | 6.10 e 3 | 0.117 | 1.000 | 3.56 | 3.49 | 12.5 | 106 | 100.0 |
| 9 | 39 13C8-PFOA | $421.3>376$ | 3.15 e 4 | 3.15 e 4 | 0.117 | 1.000 | 3.65 | 3.61 | 12.5 | 106 | 100.0 |
| 10 | 40 13C9-PFNA | $472.2>426.9$ | 3.56 e 4 | 3.56 e 4 | 0.117 | 1.000 | 3.83 | 3.79 | 12.5 | 106 | 100.0 |
| 11 | 41 13C4-PFOS | $503>79.9$ | 5.51 e 3 | 5.51 e 3 | 0.117 | 1.000 | 3.89 | 3.84 | 12.5 | 106 | 100.0 |
| 12 | 42 13C6-PFDA | $519.1>473.7$ | 3.29 e 4 | 3.29 e 4 | 0.117 | 1.000 | 4.01 | 3.96 | 12.5 | 106 | 100.0 |
| 13 | 43 13C7-PFUnA | $570.1>524.8$ | 2.87e4 | 2.87 e 4 | 0.117 | 1.000 | 4.17 | 4.12 | 12.5 | 106 | 100.0 |
| 14 | 44 Total PFBS | $299>79.7$ | 6.47 e 2 | 3.85 e 3 | 0.117 |  | 2.96 |  | 2.10 | 8.97 |  |
| 15 | 45 Total PFHxS | $398.9>79.6$ | 9.13 e 2 | 2.91 e 3 | 0.117 |  | 3.52 |  | 3.92 | 18.9 |  |
| 16 | 46 Total PFOA | $413>368.7$ | 1.36 e 4 | 3.54 e 4 | 0.117 |  | 3.65 |  | 4.80 | 40.3 |  |
| 17 | 47 Total PFOS | $499>79.9$ | 0.00e0 | 5.62 e 3 | 0.117 |  | 3.89 |  | 0.000 |  |  |
| 18 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00 e 0 | 5.36 e 3 | 0.117 |  | 4.03 |  | 0.000 |  |  |
| 19 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00 e 0 | 4.09 e 3 | 0.117 |  | 4.17 |  | 0.000 |  |  |

## Quantify Totals Report MassLynx MassLynx V4.1 SCN945 SCN960

## Dataset: U:IQ4.PROTresults\170727M1 1170727M1-74.qld

Last Altered: Thursday, August 03, 2017 13:59:05 Pacific Daylight Time Printed: Thursday, August 03, 2017 13:59:16 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_74, Date: 28-Jul-2017, Time: 00:44:15, ID: 1700871-04 24-GW-24IN03-20170712 0.11741, Description: 24-GW-24IN03-20170712

## Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 3 PFBS | $299>79.7$ | 2.90 | 647.146 | 3847.521 | 2.102 | bb | 9.0 |  |

Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: |
| 1 | 6 PFHxS | $398.9>79.6$ | 3.49 | 913.281 | 2911.750 | 3.921 | MM | 18.9 |

## Total PFOA

|  | \# Name | Trace |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: | :--- |
| 1 | 7 PFOA | $413>368.7$ | 3.61 | 13586.303 | 35369.656 | RT | Area |

## Total PFOS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |  |  |  |  |
| Total N-Me-FOSAA |  |  |  |  |  |  |  |  |
|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| 1 | $13 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ |  |  | 5361.983 |  | MM-I |  |

## Total N-EtFOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |

## Dataset: <br> U:IQ4.PRO|results1170727M11170727M1-74.qld

Last Altered: Thursday, August 03, 2017 13:59:05 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 13:59:16 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDBIC18 VAL-PFAS Q4 7-27-17-L14 L17.cdb 28 Jul 2017 08:49:51

## Name: 170727M1_74, Date: 28-Jul-2017, Time: 00:44:15, ID: 1700871-04 24-GW-24IN03-20170712 0.11741, Description: 24-GW-24IN03-20170712

\section*{Total PFBS <br> 



13C3-PFBS



13C2-PFHxA



13C4-PFHpA


Total PFHxS


1802-PFHxS


## Dataset:

U:IQ4.PROIresults1170727M11170727M1-74.qld
Last Altered: Thursday, August 03, 2017 13:59:05 Pacific Daylight Time
Printed: Thursday, August 03, 2017 13:59:16 Pacific Daylight Time

## Name: 170727M1_74, Date: 28-Jul-2017, Time: 00:44:15, ID: 1700871-04 24-GW-24IN03-20170712 0.11741, Description: 24-GW-24IN03-20170712

## Total PFOA <br> 

F19:MRM of 2 channels,ES$413>169$


13C2-PFOA


## Total PFOS



13C8-PFOS


## PFDA



13C2-PFDA


Dataset:
U:IQ4.PROIresults1170727M11170727M1-74.qld
Last Altered: Thursday, August 03, 2017 13:59:05 Pacific Daylight Time
Printed: Thursday, August 03, 2017 13:59:16 Pacific Daylight Time

## Name: 170727M1_74, Date: 28-Jul-2017, Time: 00:44:15, ID: 1700871-04 24-GW-24IN03-20170712 0.11741, Description: 24-GW-24IN03-20170712

## PFUnA

F43:MRM of 2 channels,ES-
$562.9>518.9$
$2.151 \mathrm{e}+003$


13C2-PFUnA

## N-MeFOSAA


d3-N-MeFOSAA


## N-EtFOSAA


d5-N-EtFOSAA



13C2-PFDoA


## Dataset:

U:\Q4.PRO\results1170727M11170727M1-74.qld
Last Altered: Thursday, August 03, 2017 13:59:05 Pacific Daylight Time
Printed: Thursday, August 03, 2017 13:59:16 Pacific Daylight Time

## Name: 170727M1_74, Date: 28-Jul-2017, Time: 00:44:15, ID: 1700871-04 24-GW-24IN03-20170712 0.11741, Description: 24-GW-24IN03-20170712

## 13C5-PFHxA



## 13C4-PFOS

13C4-PFOS F31.MRM of 1 channel ES


13C3-PFHxS


13C6-PFDA


13C8-PFOA


13C9-PFNA

Quantify Sample Summary Report
MassLynx MassLynx V4.1 SCN 945

|  |  |
| :--- | :--- |
| Dataset: | U:IQ4.PRO\results 1170731M11170731M1-25.qld |
|  |  |
| Last Altered: | Wednesday, August 02, 2017 16:12:19 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 16:12:37 Pacific Daylight Time |

Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
Name: 170731M1_25, Date: 31-Jul-2017, Time: 16:36:59, ID: 1700871-04 24-GW-24IN03-20170712 0.11741, Description: 24-GW-24IN03-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 18 PFTrDA | 662.9 > 618.9 |  | 8.78 e 2 | 0.1174 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | 4.78 e 2 | 0.1174 |  | 4.68 |  |  |  |  |
| 3 | 35 13C2-PFTeDA | 714.8 > 669.6 | 4.78 e 2 | 1.77 e 4 | 0.1174 | 0.762 | 4.68 | 4.65 | 0.338 | 3.77 | 3.5 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | 1.77e4 | 1.77e4 | 0.1174 | 1.000 | 4.17 | 4.15 | 12.5 | 106 | 100.0 |

## Dataset: <br> U:\Q4.PRO\results\170731M1\170731M1-25.qld

Last Altered: Wednesday, August 02, 2017 16:12:19 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 16:12:37 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_25, Date: 31-Jul-2017, Time: 16:36:59, ID: 1700871-04 24-GW-24IN03-20170712 0.11741, Description: 24-GW-24IN03-20170712

## PFTeDA



170731M1_25 Smooth(Mn,1x2)


## 13C2-PFTeDA

170731M1_25 Smooth(Mn, 1x2)
F59:MRM of 2 channels,ES 24-GW-24IN03-20170712 1700871-04 24-GW-24IN03-20170712 $0.11741 \quad 714.8>669.6$


Reviewed: WJL 8/4/2017

PFTrDA


170731M1_25 Smooth(Mn,1x2)
F57:MRM of 2 channels,ES-
24-GW-24IN03-20170712 1700871-04 24-GW-24IN03-20170712 $0.11741 \quad 662.9>319$ $100{ }^{4.20} 4.26 \quad 4.35 \quad 4.59 \quad 4.65 \quad 4.75 \quad 4.80 \quad 1.660 \mathrm{e}+003$


13C2-PFTeDA


## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945

```
Dataset: U:\Q4.PRO\results\170731M1\170731M1-25.qld
Last Altered: Wednesday, August 02, 2017 16:12:19 Pacific Daylight Time
Printed: \(\quad\) Wednesday, August 02, 2017 16:12:37 Pacific Daylight Time
```


## Name: 170731M1_25, Date: 31-Jul-2017, Time: 16:36:59, ID: 1700871-04 24-GW-24IN03-20170712 0.11741, Description: 24-GW-24IN03-20170712

13C7-PFUnA
170731M1 25 Smooth(Mn, 1x2) F46:MRM of 1 channel,ES-24-GW-24INO3-20170712 1700871-04 24-GW-24IN03-20170712 $0.11741 \quad 570.1>524.8$


## Quantify Sample Summary Report

## Dataset: <br> U:IQ4.PROIresults1170727M11170727M1-75.qld

Last Altered: Thursday, August 03, 2017 14:00:38 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:00:53 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_75, Date: 28-Jul-2017, Time: 00:54:53, ID: 1700871-05 DUP02-20170712 0.11807, Description: DUP02-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ | 6.39 e 2 | 3.53 e 3 | 0.118 |  | 2.96 | 2.90 | 2.27 | 9.66 |  |
| 2 | 4 PFHxA | 313.2 > 268.9 | 1.94 e 4 | 1.24 e 4 | 0.118 |  | 3.19 | 3.15 | 7.83 | 44.7 |  |
| 3 | 5 PFHpA | $363>318.9$ | 2.48 e 3 | 2.75 e 4 | 0.118 |  | 3.45 | 3.41 | 1.13 | 6.96 |  |
| 4 | 6 PFHxS | $398.9>79.6$ | 7.85 e 2 | 2.67 e 3 | 0.118 |  | 3.56 | 3.49 | 3.68 | 17.6 |  |
| 5 | 7 PFOA | $413>368.7$ | 1.39 e 4 | 3.40 e 4 | 0.118 |  | 3.65 | 3.61 | 5.11 | 42.7 |  |
| 6 | 9 PFNA | $462.9>418.8$ |  | 2.75 e 4 | 0.118 |  | 3.83 |  |  |  |  |
| 7 | 11 PFOS | $499>79.9$ |  | 5.24 e 3 | 0.118 |  | 3.89 |  |  |  |  |
| 8 | 12 PFDA | $513>468.8$ |  | 2.33 e 4 | 0.118 |  | 4.01 |  |  |  |  |
| 9 | $13 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ |  | 4.69 e 3 | 0.118 |  | 4.03 |  |  |  |  |
| 10 | 14 N -EtFOSAA | $584.2>419$ |  | 4.24 e3 | 0.118 |  | 4.10 |  |  |  |  |
| 11 | 15 PFUnA | $562.9>518.9$ |  | 2.42 e 4 | 0.118 |  | 4.11 |  |  |  |  |
| 12 | 17 PFDoA | $612.9>318.8$ |  | 2.22 e 3 | 0.118 |  | 4.34 |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 3.53 e 3 | 4.09 e 4 | 0.118 | 0.031 | 2.96 | 2.89 | 0.431 | 119 | 112.3 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 1.24 e 4 | 4.09 e 4 | 0.118 | 0.275 | 3.19 | 3.15 | 1.51 | 46.6 | 110.1 |
| 15 | 24 13C4-PFHpA | 367.2 > 321.8 | 2.75 e 4 | 4.09 e 4 | 0.118 | 0.260 | 3.45 | 3.41 | 3.36 | 110 | 103.4 |
| 16 | 25 18O2-PFHxS | $403>102.6$ | 2.67 e 3 | 5.71 e3 | 0.118 | 0.402 | 3.56 | 3.48 | 5.84 | 123 | 116.2 |
| 17 | 26 13C2-PFOA | $414.9>369.7$ | 3.40 e 4 | 3.26 e 4 | 0.118 | 1.042 | 3.65 | 3.61 | 13.1 | 106 | 100.3 |
| 18 | 27 13C5-PFNA | 468.2 > 422.9 | 2.75 e 4 | 3.50 e 4 | 0.118 | 0.792 | 3.83 | 3.79 | 9.81 | 105 | 99.1 |

## Quantify Sample Summary Report

## Dataset: U:IQ4.PRO\results\170727M1\170727M1-75.qld

Last Altered: Thursday, August 03, 2017 14:00:38 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:01:03 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_75, Date: 28-Jul-2017, Time: 00:54:53, ID: 1700871-05 DUP02-20170712 0.11807, Description: DUP02-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 29 13C8-PFOS | $507>79.9$ | 5.24 e 3 | 5.05 e 3 | 0.118 | 0.951 | 3.89 | 3.85 | 13.0 | 115 | 109.1 |
| 2 | 30 13C2-PFDA | $515.1>469.9$ | 2.33 e 4 | 3.29 e 4 | 0.118 | 0.869 | 4.01 | 3.96 | 8.85 | 86.2 | 81.4 |
| 3 | 31 d3-N-MeFOSAA | $573.3>419$ | 4.69 e 3 | 3.01 e 4 | 0.118 | 0.013 | 4.03 | 3.99 | 1.94 | 1270 | 92.4 |
| 4 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 4.24 e 3 | 3.01 e 4 | 0.118 | 0.013 | 4.12 | 4.05 | 1.76 | 1170 | 85.0 |
| 5 | 33 13C2-PFUnA | $565>519.8$ | 2.42 e 4 | 3.01 e 4 | 0.118 | 0.928 | 4.17 | 4.13 | 10.0 | 91.5 | 86.4 |
| 6 | 34 13C2-PFDoA | $615>569.7$ | 2.22 e 3 | 3.01 e 4 | 0.118 | 0.071 | 4.34 | 4.29 | 0.920 | 110 | 103.5 |
| 7 | 37 13C5-PFHXA | $318>272.9$ | 4.09 e 4 | 4.09 e 4 | 0.118 | 1.000 | 3.19 | 3.15 | 5.00 | 42.3 | 100.0 |
| 8 | 38 13C3-PFHxS | $401.9>79.9$ | 5.71 e 3 | 5.71 e 3 | 0.118 | 1.000 | 3.56 | 3.48 | 12.5 | 106 | 100.0 |
| 9 | 39 13C8-PFOA | $421.3>376$ | 3.26 e 4 | 3.26 e 4 | 0.118 | 1.000 | 3.65 | 3.61 | 12.5 | 106 | 100.0 |
| 10 | 40 13C9-PFNA | $472.2>426.9$ | 3.50 e 4 | 3.50 e 4 | 0.118 | 1.000 | 3.83 | 3.79 | 12.5 | 106 | 100.0 |
| 11 | 41 13C4-PFOS | $503>79.9$ | 5.05 e 3 | 5.05 e 3 | 0.118 | 1.000 | 3.89 | 3.84 | 12.5 | 106 | 100.0 |
| 12 | 42 13C6-PFDA | $519.1>473.7$ | 3.29 e 4 | 3.29 e 4 | 0.118 | 1.000 | 4.01 | 3.96 | 12.5 | 106 | 100.0 |
| 13 | 43 13C7-PFUnA | $570.1>524.8$ | 3.01 e 4 | 3.01 e 4 | 0.118 | 1.000 | 4.17 | 4.13 | 12.5 | 106 | 100.0 |
| 14 | 44 Total PFBS | $299>79.7$ | 6.39 e 2 | 3.53e3 | 0.118 |  | 2.96 |  | 2.27 | 9.66 |  |
| 15 | 45 Total PFHxS | $398.9>79.6$ | 7.85 e 2 | 2.67 e 3 | 0.118 |  | 3.52 |  | 3.68 | 17.6 |  |
| 16 | 46 Total PFOA | $413>368.7$ | 1.39 e 4 | 3.40 e 4 | 0.118 |  | 3.65 |  | 5.11 | 42.7 |  |
| 17 | 47 Total PFOS | $499>79.9$ | 0.00e0 | 5.24 e 3 | 0.118 |  | 3.89 |  | 0.000 |  |  |
| 18 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00 e 0 | 4.69 e3 | 0.118 |  | 4.03 |  | 0.000 |  |  |
| 19 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00 e 0 | 4.24 e 3 | 0.118 |  | 4.17 |  | 0.000 |  |  |

## Quantify Totals Report MassLynx MassLynx V4.1 SCN945 SCN960

```
Dataset: U:\Q4.PRO\results\170727M1\170727M1-75.q|
Last Altered: Thursday, August 03, 2017 14:00:38 Pacific Daylight Time
Printed:
    Thursday, August 03, 2017 14:00:53 Pacific Daylight Time
```


## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_75, Date: 28-Jul-2017, Time: 00:54:53, ID: 1700871-05 DUP02-20170712 0.11807, Description: DUP02-20170712
Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 3 PFBS | $299>79.7$ | 2.90 | 639.355 | 3526.189 | 2.266 | bb | 9.7 |

Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 6 | $398.9>79.6$ | 3.49 | 784.972 | 2667.032 | 3.679 | bb | 17.6 |

## Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 7 PFOA | 413 > 368.7 | 3.61 | 13913.796 | 34022.535 | 5.112 | bb | 42.7 |

## Total PFOS

|  | \# Name | Trace | RT | Area | IS Area | Response Primary Flags |
| :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 11 PFOS | $499>79.9$ | 5236.208 | Conc. |  |  |

## Total N-Me-FOSAA

|  | \# Name | Trace | RT | Area | IS Area |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Total N-EtFOSAA

|  | \# Name | Trace | RT | Area | IS Area |
| :---: | :---: | :---: | :---: | :---: | :---: | Response Primary Flags | Conc. |
| :--- |
| 1 |

## Dataset:

U:IQ4.PROIresults1170727M11170727M1-75.qld
Last Altered: Thursday, August 03, 2017 14:00:38 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:00:53 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Name: 170727M1_75, Date: 28-Jul-2017, Time: 00:54:53, ID: 1700871-05 DUP02-20170712 0.11807, Description: DUP02-20170712

\section*{Total PFBS <br> 



13C3-PFBS



13C2-PFHxA


PFHpA



13C4-PFHpA


Total PFHxS


1802-PFHxS


## Dataset:

U:IQ4.PROIresults1170727M11170727M1-75.qld
Last Altered: Thursday, August 03, 2017 14:00:38 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:00:53 Pacific Daylight Time

## Name: 170727M1_75, Date: 28-Jul-2017, Time: 00:54:53, ID: 1700871-05 DUP02-20170712 0.11807, Description: DUP02-20170712

## Total PFOA <br> 



13C2-PFOA


13C5-PFNA


## Total PFOS



F30:MRM of 2 channels,ES$499>99$
$1.000 \mathrm{e}-003$


13C8-PFOS


## PFDA




13C2-PFDA


## Dataset:

U:IQ4.PROIresults1170727M11170727M1-75.qld

## Last Altered:

Thursday, August 03, 2017 14:00:38 Pacific Daylight Time Printed: Thursday, August 03, 2017 14:00:53 Pacific Daylight Time

## Name: 170727M1_75, Date: 28-Jul-2017, Time: 00:54:53, ID: 1700871-05 DUP02-20170712 0.11807, Description: DUP02-20170712

## PFUnA




13C2-PFUnA

## N-MeFOSAA


d3-N-MeFOSAA
F47:MRM of 1 channel,ES-
F47:MRM of 1 channel,ES$573.3>419$
$7.040 e+004$


## N-EtFOSAA


d5-N-EtFOSAA



13C2-PFDoA


## Quantify Sample Report

## Dataset:

U:\Q4.PRO\results1170727M11170727M1-75.qld

## Last Altered:

 Printed:Thursday, August 03, 2017 14:00:38 Pacific Daylight Time

## Name: 170727M1_75, Date: 28-Jul-2017, Time: 00:54:53, ID: 1700871-05 DUP02-20170712 0.11807, Description: DUP02-20170712

## 13C5-PFHxA



## 13C4-PFOS



13C3-PFHxS


13C6-PFDA


13C8-PFOA


13C7-PFUnA


13C9-PFNA


Quantify Sample Summary Report
MassLynx MassLynx V4.1 SCN 945

|  |  |
| :--- | :--- |
| Dataset: | U:IQ4.PRO\results 1170731M11170731M1-26.qld |
|  |  |
| Last Altered: | Wednesday, August 02, 2017 16:13:29 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 16:13:51 Pacific Daylight Time |

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:|Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_26, Date: 31-Jul-2017, Time: 16:48:01, ID: 1700871-05 DUP02-20170712 0.11807, Description: DUP02-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 18 PFTrDA | 662.9 > 618.9 |  | 1.29e3 | 0.1181 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | 2.61e3 | 0.1181 |  | 4.68 |  |  |  |  |
| 3 | 35 13C2-PFTeDA | 714.8 > 669.6 | 2.61 e 3 | 1.77 e 4 | 0.1181 | 0.762 | 4.68 | 4.65 | 1.84 | 20.5 | 19.3 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | 1.77 e 4 | 1.77 e 4 | 0.1181 | 1.000 | 4.17 | 4.14 | 12.5 | 106 | 100.0 |

## Dataset: <br> U:\Q4.PRO\results\170731M1\170731M1-26.qld

Last Altered: Wednesday, August 02, 2017 16:13:29 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:13:51 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_26, Date: 31-Jul-2017, Time: 16:48:01, ID: 1700871-05 DUP02-20170712 0.11807, Description: DUP02-20170712

## PFTeDA

170731M1_26 Smooth(Mn,1x2)
DUP02-20170712 1700871-05 DUP02-20170712 0.11807
F58:MRM of 4 channels,ES
$712.9>668.8$ $4.944 .199 \mathrm{e}+003$


170731M1_26 Smooth(Mn,1x2)
DUP02-20170712 1700871-05 DUP02-20170712 0.11807


## 13C2-PFTeDA

170731M1 26 Smooth(Mn, 1x2)
DUP02-20170712 1700871-05 DUP02-20170712 $0.11807 \quad$ F59:MRM of 2 channels,ES


Reviewed: WJL 8/4/2017

## PFTrDA



170731M1_26 Smooth(Mn,1x2)
DUP02-20170712 1700871-05 DUP02-20170712 $0.11807 \quad$ F57:MRM of 2 channels,ES


13C2-PFTeDA
170731M1_26 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-DUP02-20170712 1700871-05 DUP02-20170712 $0.11807 \quad 714.8>669.6$


## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945

| Dataset: | U:\Q4.PRO\results\170731M1\170731M1-26.qld |
| :--- | :--- |
| Last Altered: | Wednesday, August 02, 2017 16:13:29 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 16:13:51 Pacific Daylight Time |

Name: 170731M1_26, Date: 31-Jul-2017, Time: 16:48:01, ID: 1700871-05 DUP02-20170712 0.11807, Description: DUP02-20170712


## Quantify Sample Summary Report

## Dataset: <br> U:IQ4.PROIresults1170727M11170727M1-76.qld

Last Altered: Thursday, August 03, 2017 14:02:28 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:02:42 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_76, Date: 28-Jul-2017, Time: 01:05:31, ID: 1700871-06 24-GW-24EX13A-20170712 0.11851, Description: 24-GW-24EX13A-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ | 1.22 e 4 | 3.41 e3 | 0.119 |  | 2.96 | 2.89 | 44.6 | 200 |  |
| 2 | 4 PFHxA | 313.2 > 268.9 | 1.65 e 5 | 1.09 e 4 | 0.119 |  | 3.19 | 3.14 | 75.8 | 439 |  |
| 3 | 5 PFHpA | $363>318.9$ | 1.94 e 4 | 2.57 e 4 | 0.119 |  | 3.45 | 3.41 | 9.45 | 64.0 |  |
| 4 | 6 PFHxS | $398.9>79.6$ | 9.09 e 3 | 2.47 e 3 | 0.119 |  | 3.56 | 3.48 | 45.9 | 235 |  |
| 5 | 7 PFOA | $413>368.7$ | 2.36 e 4 | 3.22 e 4 | 0.119 |  | 3.65 | 3.61 | 9.18 | 77.6 |  |
| 6 | 9 PFNA | $462.9>418.8$ |  | 2.64 e 4 | 0.119 |  | 3.83 |  |  |  |  |
| 7 | 11 PFOS | $499>79.9$ | 1.40 e 2 | 5.72 e 3 | 0.119 |  | 3.89 | 3.79 | 0.306 | 1.88 |  |
| 8 | 12 PFDA | $513>468.8$ |  | 2.33 e 4 | 0.119 |  | 4.01 |  |  |  |  |
| 9 | $13 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ |  | 5.45 e 3 | 0.119 |  | 4.03 |  |  |  |  |
| 10 | 14 N -EtFOSAA | $584.2>419$ |  | 5.19 e 3 | 0.119 |  | 4.10 |  |  |  |  |
| 11 | 15 PFUnA | $562.9>518.9$ |  | 2.43 e 4 | 0.119 |  | 4.11 |  |  |  |  |
| 12 | 17 PFDoA | $612.9>318.8$ |  | 2.07 e 3 | 0.119 |  | 4.34 |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 3.41 e 3 | 3.64 e4 | 0.119 | 0.031 | 2.96 | 2.89 | 0.468 | 129 | 122.0 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 1.09 e 4 | 3.64 e 4 | 0.119 | 0.275 | 3.19 | 3.14 | 1.50 | 45.9 | 108.8 |
| 15 | 24 13C4-PFHpA | 367.2 > 321.8 | 2.57 e 4 | 3.64 e 4 | 0.119 | 0.260 | 3.45 | 3.41 | 3.53 | 114 | 108.5 |
| 16 | 25 18O2-PFHxS | $403>102.6$ | 2.47 e 3 | 5.43 e 3 | 0.119 | 0.402 | 3.56 | 3.48 | 5.70 | 120 | 113.4 |
| 17 | 26 13C2-PFOA | $414.9>369.7$ | 3.22 e 4 | 3.03 e 4 | 0.119 | 1.042 | 3.65 | 3.61 | 13.3 | 108 | 102.0 |
| 18 | 27 13C5-PFNA | 468.2 > 422.9 | 2.64 e 4 | 3.34 e 4 | 0.119 | 0.792 | 3.83 | 3.79 | 9.89 | 105 | 99.9 |

## Quantify Sample Summary Report

## Dataset: U:IQ4.PROTresults\170727M1\170727M1-76.qld

Last Altered: Thursday, August 03, 2017 14:02:28 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:02:53 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_76, Date: 28-Jul-2017, Time: 01:05:31, ID: 1700871-06 24-GW-24EX13A-20170712 0.11851, Description: 24-GW-24EX13A-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 29 13C8-PFOS | $507>79.9$ | 5.72 e 3 | 5.29 e 3 | 0.119 | 0.951 | 3.89 | 3.84 | 13.5 | 120 | 113.9 |
| 2 | 30 13C2-PFDA | $515.1>469.9$ | 2.33 e 4 | 3.03 e 4 | 0.119 | 0.869 | 4.01 | 3.96 | 9.61 | 93.3 | 88.4 |
| 3 | 31 d3-N-MeFOSAA | $573.3>419$ | 5.45 e 3 | 2.91 e 4 | 0.119 | 0.013 | 4.03 | 3.98 | 2.34 | 1530 | 111.5 |
| 4 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 5.19 e 3 | 2.91 e 4 | 0.119 | 0.013 | 4.12 | 4.05 | 2.23 | 1480 | 108.1 |
| 5 | 33 13C2-PFUnA | $565>519.8$ | 2.43 e 4 | 2.91 e 4 | 0.119 | 0.928 | 4.17 | 4.12 | 10.5 | 95.0 | 90.1 |
| 6 | 34 13C2-PFDoA | $615>569.7$ | 2.07e3 | 2.91 e 4 | 0.119 | 0.071 | 4.34 | 4.28 | 0.892 | 106 | 100.4 |
| 7 | 37 13C5-PFHXA | $318>272.9$ | 3.64 e 4 | 3.64 e 4 | 0.119 | 1.000 | 3.19 | 3.14 | 5.00 | 42.2 | 100.0 |
| 8 | 38 13C3-PFHxS | $401.9>79.9$ | 5.43 e 3 | 5.43 e 3 | 0.119 | 1.000 | 3.56 | 3.48 | 12.5 | 105 | 100.0 |
| 9 | 39 13C8-PFOA | $421.3>376$ | 3.03 e 4 | 3.03e4 | 0.119 | 1.000 | 3.65 | 3.61 | 12.5 | 105 | 100.0 |
| 10 | 40 13C9-PFNA | $472.2>426.9$ | 3.34 e 4 | 3.34 e 4 | 0.119 | 1.000 | 3.83 | 3.79 | 12.5 | 105 | 100.0 |
| 11 | 41 13C4-PFOS | $503>79.9$ | 5.29 e 3 | 5.29 e 3 | 0.119 | 1.000 | 3.89 | 3.84 | 12.5 | 105 | 100.0 |
| 12 | 42 13C6-PFDA | $519.1>473.7$ | 3.03 e 4 | 3.03 e 4 | 0.119 | 1.000 | 4.01 | 3.95 | 12.5 | 105 | 100.0 |
| 13 | 43 13C7-PFUnA | $570.1>524.8$ | 2.91 e 4 | 2.91 e 4 | 0.119 | 1.000 | 4.17 | 4.12 | 12.5 | 105 | 100.0 |
| 14 | 44 Total PFBS | $299>79.7$ | 1.22 e 4 | 3.41 e 3 | 0.119 |  | 2.96 |  | 44.6 | 200 |  |
| 15 | 45 Total PFHxS | $398.9>79.6$ | 9.09 e 3 | 2.47 e 3 | 0.119 |  | 3.52 |  | 45.9 | 235 |  |
| 16 | 46 Total PFOA | $413>368.7$ | 2.36 e 4 | 3.22 e 4 | 0.119 |  | 3.65 |  | 9.18 | 77.6 |  |
| 17 | 47 Total PFOS | $499>79.9$ | 1.40 e 2 | 5.72e3 | 0.119 |  | 3.89 |  | 0.306 | 1.88 |  |
| 18 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00 e 0 | 5.45 e 3 | 0.119 |  | 4.03 |  | 0.000 |  |  |
| 19 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00 e 0 | 5.19 e 3 | 0.119 |  | 4.17 |  | 0.000 |  |  |

## Quantify Totals Report MassLynx MassLynx V4.1 SCN945 SCN960

Dataset:
U:IQ4.PROTresults 1170727M1 1170727M1-76.qld
Last Altered: Thursday, August 03, 2017 14:02:28 Pacific Daylight Time Printed: Thursday, August 03, 2017 14:02:42 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB|PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_76, Date: 28-Jul-2017, Time: 01:05:31, ID: 1700871-06 24-GW-24EX13A-20170712 0.11851, Description: 24-GW-24EX13A-20170712

## Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 3 PFBS | $299>79.7$ | 2.89 | 12158.621 | 3405.706 | 44.626 | bb | 199.8 |  |

Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | $6 ~ P F H x S$ | $398.9>79.6$ | 3.48 | 9085.771 | 2473.284 | 45.920 | MM | 234.9 |

## Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 7 PFOA | 413 > 368.7 | 3.61 | 23618.820 | 32156.020 | 9.181 | bb | 77.6 |

## Total PFOS

| \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| ---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 11 PFOS | $499>79.9$ | 3.79 | 140.086 | 5724.322 | 0.306 | bb | 1.9 |

## Total N-Me-FOSAA

|  | \# Name | Trace | RT | Area | IS Area |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Total N-EtFOSAA

| \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| 14 N-EtFOSAA | $584.2>419$ |  | 5191.702 |  | Conc. |  |

## Quantify Sample Report

Printed: Thursday, August 03, 2017 14:02:42 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDBIC18 VAL-PFAS Q4 7-27-17-L14 L17.cdb 28 Jul 2017 08:49:51

## Name: 170727M1_76, Date: 28-Jul-2017, Time: 01:05:31, ID: 1700871-06 24-GW-24EX13A-20170712 0.11851, Description: 24-GW-24EX13A-20170712

\section*{Total PFBS <br> |  |  |
| ---: | ---: |
|  | F6:MRM of 2 channels,ES- |
| $299>79.7$ |  |
| $2.438 \mathrm{e}+005$ |  |
| 100 |  |}



13C3-PFBS



13C2-PFHxA


## PFHpA




13C4-PFHpA


Total PFHxS


1802-PFHxS


## Dataset:

U:IQ4.PROIresults1170727M11170727M1-76.qld
Last Altered: Thursday, August 03, 2017 14:02:28 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:02:42 Pacific Daylight Time

Name: 170727M1_76, Date: 28-Jul-2017, Time: 01:05:31, ID: 1700871-06 24-GW-24EX13A-20170712 0.11851, Description: 24-GW-24EX13A-20170712

## Total PFOA




13C2-PFOA


13C5-PFNA


## Total PFOS




13C8-PFOS


## PFDA



13C2-PFDA


## Dataset:

U:IQ4.PRO|results1170727M11170727M1-76.qld
Last Altered: Thursday, August 03, 2017 14:02:28 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:02:42 Pacific Daylight Time

Name: 170727M1_76, Date: 28-Jul-2017, Time: 01:05:31, ID: 1700871-06 24-GW-24EX13A-20170712 0.11851, Description: 24-GW-24EX13A-20170712

## PFUnA




13C2-PFUnA

## N-MeFOSAA


d3-N-MeFOSAA
F47:MRM of 1 channel,ESF47:MRM of $\begin{array}{r}1 \text { channel, ES- } \\ 573.3>419\end{array}$ $573.3>419$
$8.156 e+004$
d5-N-EtFOSAA



13C2-PFDoA


## Quantify Sample Report

Printed: $\quad$ Thursday, August 03, 2017 14:02:42 Pacific Daylight Time

Name: 170727M1_76, Date: 28-Jul-2017, Time: 01:05:31, ID: 1700871-06 24-GW-24EX13A-20170712 0.11851, Description: 24-GW-24EX13A-20170712

## 13C5-PFHxA



## 13C4-PFOS



13C3-PFHxS


13C6-PFDA



13C9-PFNA


## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945

## Dataset: U:IQ4.PRO\results1170731M11170731M1-27.qld <br> Last Altered: Wednesday, August 02, 2017 16:14:47 Pacific Daylight Time Printed: $\quad$ Wednesday, August 02, 2017 16:15:01 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDBIPFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:|Q4.PRO|CurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_27, Date: 31-Jul-2017, Time: 16:58:39, ID: 1700871-06 24-GW-24EX13A-20170712 0.11851, Description: 24-GW-24EX13A-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 18 PFTrDA | $662.9>618.9$ |  | 1.91e3 | 0.1185 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | 1.05 e 4 | 0.1185 |  | 4.68 |  |  |  |  |
| 3 | 35 13C2-PFTeDA | $714.8>669.6$ | 1.05 e 4 | 2.36 e 4 | 0.1185 | 0.762 | 4.68 | 4.65 | 5.57 | 61.6 | 58.4 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | 2.36 e 4 | 2.36 e 4 | 0.1185 | 1.000 | 4.17 | 4.14 | 12.5 | 105 | 100.0 |

## Dataset: <br> U:\Q4.PRO\results\170731M1\170731M1-27.qld

Last Altered: Wednesday, August 02, 2017 16:14:47 Pacific Daylight Time Printed: Wednesday, August 02, 2017 16:15:01 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_27, Date: 31-Jul-2017, Time: 16:58:39, ID: 1700871-06 24-GW-24EX13A-20170712 0.11851, Description: 24-GW-24EX13A-20170712

## PFTeDA

170731M1_27 Smooth(Mn,1x2)
24-GW-24EX13A-20170712 1700871-06 24-GW-24EX13A-201707:MRM of 4 channels, ES-


170731M1_27 Smooth(Mn,1x2)
F58:MRM of 4 channels,ES-
24-GW-24EX13A-20170712 1700871-06 24-GW-24EX13A-20170712 $0.11851 \quad 712.9>369$


## 13C2-PFTeDA

170731M1_27 Smooth(Mn,1x2)
F59:MRM of 2 channels,ES 24-GW-24 $\bar{E} X 13 A-201707121700871-06$ 24-GW-24EX13A-20170712 $0.11851714 .8>669.6$ 100 13C2-PFTeDA;4.65;1.05e4;174751;bb $1.781 \mathrm{e}+005$


Reviewed: WJL 8/4/2017

## PFTrDA



170731M1_27 Smooth(Mn,1x2) F57:MRM of 2 channels,ES-
24-GW-24EX13A-20170712 1700871-06 24-GW-24EX13A-20170712 0.11851662 .9 > 319


13C2-PFTeDA
170731M1_27 Smooth(Mn,1x2)
559:MRM of 2 channels,ES
20071-06 24GW 24EX13A-20170712 0.11851714.8>6696


## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945

```
Dataset: U:\Q4.PRO\results\170731M1\170731M1-27.qld
Last Altered: Wednesday, August 02, 2017 16:14:47 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:15:01 Pacific Daylight Time
```

Name: 170731M1_27, Date: 31-Jul-2017, Time: 16:58:39, ID: 1700871-06 24-GW-24EX13A-20170712 0.11851, Description: 24-GW-24EX13A-20170712
13C7-PFUnA
170731M1_27 Smooth(Mn,1x2) F46:MRM of 1 channel,ES-24-GW-24EX13A


## Quantify Sample Summary Report

## Dataset: U:IQ4.PRO\results\170727M1\170727M1-77.qld

Last Altered: Thursday, August 03, 2017 14:04:11 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:04:26 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_77, Date: 28-Jul-2017, Time: 01:16:10, ID: 1700871-07 24-GW-24MW15D-20170712 0.1193, Description: 24-GW-24MW15D-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ | 1.99 e 3 | 2.93 e3 | 0.119 |  | 2.96 | 2.90 | 8.50 | 37.4 |  |
| 2 | 4 PFHxA | $313.2>268.9$ | 4.62 e 4 | 9.48 e 3 | 0.119 |  | 3.19 | 3.14 | 24.4 | 140 |  |
| 3 | 5 PFHpA | $363>318.9$ | 5.48 e 3 | 2.21 e 4 | 0.119 |  | 3.45 | 3.41 | 3.11 | 20.4 |  |
| 4 | 6 PFHxS | $398.9>79.6$ | 2.24 e 3 | 1.98 e 3 | 0.119 |  | 3.56 | 3.47 | 14.1 | 70.8 |  |
| 5 | 7 PFOA | $413>368.7$ | 3.88 e 4 | 2.92 e 4 | 0.119 |  | 3.65 | 3.61 | 16.6 | 141 |  |
| 6 | 9 PFNA | $462.9>418.8$ |  | 2.45 e 4 | 0.119 |  | 3.83 |  |  |  |  |
| 7 | 11 PFOS | $499>79.9$ | 3.53 e 1 | 4.82 e 3 | 0.119 |  | 3.89 | 3.77 | 0.0917 | 0.195 |  |
| 8 | 12 PFDA | $513>468.8$ |  | 2.29 e 4 | 0.119 |  | 4.01 |  |  |  |  |
| 9 | 13 N-MeFOSAA | $570.1>419$ |  | 4.78 e 3 | 0.119 |  | 4.03 |  |  |  |  |
| 10 | $14 \mathrm{~N}-\mathrm{EtFOSAA}$ | $584.2>419$ |  | 4.60 e 3 | 0.119 |  | 4.10 |  |  |  |  |
| 11 | 15 PFUnA | $562.9>518.9$ |  | 2.34 e 4 | 0.119 |  | 4.11 |  |  |  |  |
| 12 | 17 PFDoA | $612.9>318.8$ |  | 2.34 e 3 | 0.119 |  | 4.34 |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 2.93 e3 | 3.23 e 4 | 0.119 | 0.031 | 2.96 | 2.89 | 0.454 | 124 | 118.3 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 9.48 e 3 | 3.23 e 4 | 0.119 | 0.275 | 3.19 | 3.15 | 1.47 | 44.7 | 106.7 |
| 15 | 24 13C4-PFHpA | 367.2 > 321.8 | 2.21 e 4 | 3.23 e 4 | 0.119 | 0.260 | 3.45 | 3.41 | 3.42 | 110 | 105.2 |
| 16 | 25 18O2-PFHxS | $403>102.6$ | 1.98 e 3 | 5.04 e 3 | 0.119 | 0.402 | 3.56 | 3.48 | 4.92 | 102 | 97.8 |
| 17 | 26 13C2-PFOA | $414.9>369.7$ | 2.92 e 4 | 2.67 e 4 | 0.119 | 1.042 | 3.65 | 3.61 | 13.6 | 110 | 104.8 |
| 18 | 27 13C5-PFNA | $468.2>422.9$ | 2.45 e 4 | 2.72 e 4 | 0.119 | 0.792 | 3.83 | 3.79 | 11.3 | 119 | 114.0 |

## Quantify Sample Summary Report

## Dataset: U:IQ4.PRO\results\170727M1\170727M1-77.qld

Last Altered: Thursday, August 03, 2017 14:04:11 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:04:42 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_77, Date: 28-Jul-2017, Time: 01:16:10, ID: 1700871-07 24-GW-24MW15D-20170712 0.1193, Description: 24-GW-24MW15D-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 29 13C8-PFOS | $507>79.9$ | 4.82 e 3 | 4.73 e3 | 0.119 | 0.951 | 3.89 | 3.84 | 12.7 | 112 | 107.2 |
| 2 | 30 13C2-PFDA | $515.1>469.9$ | 2.29 e 4 | 3.04 e 4 | 0.119 | 0.869 | 4.01 | 3.96 | 9.42 | 90.8 | 86.7 |
| 3 | 31 d3-N-MeFOSAA | $573.3>419$ | 4.78 e 3 | 2.72 e 4 | 0.119 | 0.013 | 4.03 | 3.98 | 2.20 | 1430 | 104.7 |
| 4 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 4.60 e 3 | 2.72 e 4 | 0.119 | 0.013 | 4.12 | 4.05 | 2.12 | 1400 | 102.4 |
| 5 | 33 13C2-PFUnA | $565>519.8$ | 2.34 e 4 | 2.72 e 4 | 0.119 | 0.928 | 4.17 | 4.12 | 10.8 | 97.3 | 92.9 |
| 6 | 34 13C2-PFDoA | $615>569.7$ | 2.34 e 3 | 2.72 e 4 | 0.119 | 0.071 | 4.34 | 4.28 | 1.08 | 127 | 121.3 |
| 7 | 37 13C5-PFHXA | $318>272.9$ | 3.23 e4 | 3.23 e 4 | 0.119 | 1.000 | 3.19 | 3.14 | 5.00 | 41.9 | 100.0 |
| 8 | 38 13C3-PFHxS | $401.9>79.9$ | 5.04 e 3 | 5.04 e 3 | 0.119 | 1.000 | 3.56 | 3.48 | 12.5 | 105 | 100.0 |
| 9 | 39 13C8-PFOA | $421.3>376$ | 2.67e4 | 2.67 e 4 | 0.119 | 1.000 | 3.65 | 3.61 | 12.5 | 105 | 100.0 |
| 10 | 40 13C9-PFNA | $472.2>426.9$ | 2.72 e 4 | 2.72 e 4 | 0.119 | 1.000 | 3.83 | 3.79 | 12.5 | 105 | 100.0 |
| 11 | 41 13C4-PFOS | $503>79.9$ | 4.73 e 3 | 4.73 e 3 | 0.119 | 1.000 | 3.89 | 3.84 | 12.5 | 105 | 100.0 |
| 12 | 42 13C6-PFDA | $519.1>473.7$ | 3.04 e 4 | 3.04 e 4 | 0.119 | 1.000 | 4.01 | 3.96 | 12.5 | 105 | 100.0 |
| 13 | 43 13C7-PFUnA | $570.1>524.8$ | 2.72 e 4 | 2.72 e 4 | 0.119 | 1.000 | 4.17 | 4.12 | 12.5 | 105 | 100.0 |
| 14 | 44 Total PFBS | $299>79.7$ | 1.99 e 3 | 2.93 e3 | 0.119 |  | 2.96 |  | 8.50 | 37.4 |  |
| 15 | 45 Total PFHxS | $398.9>79.6$ | 2.24 e 3 | 1.98 e 3 | 0.119 |  | 3.52 |  | 14.1 | 70.8 |  |
| 16 | 46 Total PFOA | $413>368.7$ | 3.88 e 4 | 2.92 e 4 | 0.119 |  | 3.65 |  | 16.6 | 141 |  |
| 17 | 47 Total PFOS | $499>79.9$ | 3.53 e 1 | 4.82e3 | 0.119 |  | 3.89 |  | 0.0917 | 0.195 |  |
| 18 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00 e 0 | 4.78 e 3 | 0.119 |  | 4.03 |  | 0.000 |  |  |
| 19 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00 e 0 | 4.60 e 3 | 0.119 |  | 4.17 |  | 0.000 |  |  |

## Quantify Totals Report MassLynx MassLynx V4.1 SCN945 SCN960

Dataset:
U:IQ4.PRO\results1170727M11170727M1-77.qld
Last Altered: Thursday, August 03, 2017 14:04:11 Pacific Daylight Time Printed: Thursday, August 03, 2017 14:04:26 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB|PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_77, Date: 28-Jul-2017, Time: 01:16:10, ID: 1700871-07 24-GW-24MW15D-20170712 0.1193, Description: 24-GW-24MW15D-20170712

## Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 3 PFBS | $299>79.7$ | 2.90 | 1994.070 | 2931.092 | 8.504 | bb | 37.4 |  |

Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: |
| 1 | 6 PFHxS | $398.9>79.6$ | 3.47 | 2241.158 | 1983.215 | 14.126 | MM | 70.8 |

## Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 7 PFOA | $413>368.7$ | 3.61 | 38815.676 | 29180.264 | 16.628 | bb | 140.9 |

## Total PFOS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 11 PFOS | 499 > 79.9 | 3.77 | 35.336 | 4816.934 | 0.092 | MM | 0.2 |
| Total N-Me-FOSAA |  |  |  |  |  |  |  |  |
|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| 1 | $13 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ |  |  | 4784.382 |  | MM-I |  |

## Total N-EtFOSAA

|  | \# Name | Trace | RT | Area | IS Area |
| :---: | :---: | :---: | :---: | :---: | :---: | Response Primary Flags | Conc. |
| :--- |
| 1 |

## Quantify Sample Report

Printed: Thursday, August 03, 2017 14:04:26 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Name: 170727M1_77, Date: 28-Jul-2017, Time: 01:16:10, ID: 1700871-07 24-GW-24MW15D-20170712 0.1193, Description: 24-GW-24MW15D-20170712

\section*{Total PFBS <br> 



13C3-PFBS



13C2-PFHxA


## PFHpA




13C4-PFHpA


Total PFHxS


1802-PFHxS


## Dataset:

U:IQ4.PRO|results1170727M11170727M1-77.qld
Last Altered: Thursday, August 03, 2017 14:04:11 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:04:26 Pacific Daylight Time

Name: 170727M1_77, Date: 28-Jul-2017, Time: 01:16:10, ID: 1700871-07 24-GW-24MW15D-20170712 0.1193, Description: 24-GW-24MW15D-20170712

## Total PFOA

|  | F19:MRM of 2 channels,ES- |  |
| :---: | :---: | :---: |
|  |  | 413 > 368.7 |
| ${ }^{100}$ | PFOA | $5.405 \mathrm{e}+005$ |
|  | 3.61 |  |
|  | 3.88 e 4 |  |
| \%- | 535692 bb |  |



13C2-PFOA


13C5-PFNA


## Total PFOS




13C8-PFOS



13C2-PFDA


## Dataset:

U:IQ4.PROIresults1170727M11170727M1-77.qld
Last Altered: Thursday, August 03, 2017 14:04:11 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:04:26 Pacific Daylight Time

Name: 170727M1_77, Date: 28-Jul-2017, Time: 01:16:10, ID: 1700871-07 24-GW-24MW15D-20170712 0.1193, Description: 24-GW-24MW15D-20170712

## PFUnA

F43:MRM of 2 channels,ES- | $562.9>518.9$ |
| ---: |
| $2.598 \mathrm{e}+003$ |



13C2-PFUnA


## N-MeFOSAA


d3-N-MeFOSAA


N-EtFOSAA

d5-N-EtFOSAA



13C2-PFDoA


## Dataset:

U:IQ4.PROIresults1170727M11170727M1-77.qld
Last Altered: Thursday, August 03, 2017 14:04:11 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:04:26 Pacific Daylight Time

Name: 170727M1_77, Date: 28-Jul-2017, Time: 01:16:10, ID: 1700871-07 24-GW-24MW15D-20170712 0.1193, Description: 24-GW-24MW15D-20170712

## 13C5-PFHxA



13C4-PFOS
13C4-PFOS F31.MRM of 1 channel, ES


13C3-PFHxS


13C6-PFDA



13C9-PFNA


## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945

## Dataset: U:IQ4.PRO|results1170731M11170731M1-28.qld <br> Last Altered: Wednesday, August 02, 2017 16:16:15 Pacific Daylight Time <br> Printed: Wednesday, August 02, 2017 16:16:50 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
## Name: 170731M1_28, Date: 31-Jul-2017, Time: 17:09:26, ID: 1700871-07 24-GW-24MW15D-20170712 0.1193, Description: 24-GW-24MW15D-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 18 PFTrDA | $662.9>618.9$ |  | 1.57 e 3 | 0.1193 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | 9.98 e 3 | 0.1193 |  | 4.68 |  |  |  |  |
| 3 | $35 ~ 13 C 2-P F T e D A ~$ | $714.8>669.6$ | 9.98 e 3 | 2.20 e 4 | 0.1193 | 0.762 | 4.68 | 4.65 | 5.67 | 62.4 | 59.6 |
| 4 | $4313 C 7-P F U n A$ | $570.1>524.8$ | $2.20 e 4$ | 2.20 e 4 | 0.1193 | 1.000 | 4.17 | 4.14 | 12.5 | 105 | 100.0 |


| Dataset: | U:\Q4.PRO\results\170731M1\170731M1-28.qld |
| :--- | :--- |
| Last Altered: | Wednesday, August 02, 2017 16:16:15 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 16:16:50 Pacific Daylight Time |

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_28, Date: 31-Jul-2017, Time: 17:09:26, ID: 1700871-07 24-GW-24MW15D-20170712 0.1193, Description: 24-GW-24MW15D-20170712

## PFTeDA

| 170731M1_28 Smooth(Mn,1x2) | $\begin{array}{r}\text { F58:MRM of } 4 \text { channels,ES- } \\ 712.9>668.8 \\ 4.356 e+003\end{array}$ |
| :--- | :--- | :--- | 170731M1_28 Smooth(Mn,1x2) 24-GW-24MW 15D-20170712 1700871-07 24-GW-24MW 15D-20170712 0.11937129 > 369



## 13C2-PFTeDA

170731M1_28 Smooth(Mn,1x2)
F59:MRM of 2 channels,ES $714.8>669.6$ $1.732 \mathrm{e}+005$


Reviewed: WJL 8/4/2017

PFTrDA


170731M1 28 Smooth(Mn,1x2)
F57:MRM of 2 channels,ES-
24-GW-24MW 15D-20170712 1700871-07 24-GW-24MW 15D-20170712 0.1193662 .9 > 319


13C2-PFTeDA
170731M1_28 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-


## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945

```
Dataset: U:\Q4.PRO\results\170731M1\170731M1-28.qld
Last Altered: Wednesday, August 02, 2017 16:16:15 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:16:50 Pacific Daylight Time
```


## Name: 170731M1_28, Date: 31-Jul-2017, Time: 17:09:26, ID: 1700871-07 24-GW-24MW15D-20170712 0.1193, Description: 24-GW-24MW15D-20170712

## 13C7-PFUnA

170731M1_28 Smooth(Mn,1x2) F46:MRM of 1 channel,ES-


## Quantify Sample Summary Report

## Dataset: <br> U:IQ4.PROIresults1170727M11170727M1-81.qld

Last Altered: Thursday, August 03, 2017 14:05:57 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:06:19 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:IQ4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_81, Date: 28-Jul-2017, Time: 01:58:51, ID: 1700871-08 16-GW-16_MW28-20170712 0.11899, Description: 16-GW-16_MW28-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ | 3.11 e 4 | 1.16 e 4 | 0.119 |  | 2.96 | 2.90 | 33.4 | 149 |  |
| 2 | 4 PFHxA | 313.2 > 268.9 | 5.51e5 | 3.94 e 4 | 0.119 |  | 3.19 | 3.15 | 70.0 | 404 |  |
| 3 | 5 PFHpA | $363>318.9$ | 1.87 e 3 | 9.63 e 4 | 0.119 |  | 3.45 | 3.41 | 0.243 | 0.887 |  |
| 4 | 6 PFHxS | $398.9>79.6$ | 2.11 e 2 | 9.25 e3 | 0.119 |  | 3.56 | 3.50 | 0.285 | 0.0391 |  |
| 5 | 7 PFOA | $413>368.7$ |  | 1.22 e 5 | 0.119 |  | 3.65 |  |  |  |  |
| 6 | 9 PFNA | $462.9>418.8$ |  | 1.00 e 5 | 0.119 |  | 3.83 |  |  |  |  |
| 7 | 11 PFOS | $499>79.9$ | 4.39 e 1 | 2.09 e 4 | 0.119 |  | 3.89 | 3.85 | 0.0262 |  |  |
| 8 | 12 PFDA | $513>468.8$ |  | 1.00 e5 | 0.119 |  | 4.01 |  |  |  |  |
| 9 | 13 N-MeFOSAA | $570.1>419$ |  | 2.16 e 4 | 0.119 |  | 4.03 |  |  |  |  |
| 10 | 14 N -EtFOSAA | $584.2>419$ |  | 2.17 e 4 | 0.119 |  | 4.10 |  |  |  |  |
| 11 | 15 PFUnA | $562.9>518.9$ |  | 1.09 e 5 | 0.119 |  | 4.11 |  |  |  |  |
| 12 | 17 PFDoA | $612.9>318.8$ |  | 9.27 e3 | 0.119 |  | 4.34 |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 1.16 e 4 | 1.31 e 5 | 0.119 | 0.031 | 2.96 | 2.90 | 0.444 | 121 | 115.7 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 3.94 e 4 | 1.31 e 5 | 0.119 | 0.275 | 3.19 | 3.15 | 1.50 | 45.8 | 109.1 |
| 15 | 24 13C4-PFHpA | 367.2 > 321.8 | 9.63 e 4 | 1.31 e 5 | 0.119 | 0.260 | 3.45 | 3.41 | 3.67 | 119 | 112.9 |
| 16 | 25 18O2-PFHxS | $403>102.6$ | 9.25 e 3 | 2.05 e 4 | 0.119 | 0.402 | 3.56 | 3.49 | 5.64 | 118 | 112.1 |
| 17 | 26 13C2-PFOA | $414.9>369.7$ | 1.22 e 5 | 1.16 e 5 | 0.119 | 1.042 | 3.65 | 3.61 | 13.1 | 106 | 100.8 |
| 18 | 27 13C5-PFNA | 468.2 > 422.9 | 1.00 e 5 | 1.30 e 5 | 0.119 | 0.792 | 3.83 | 3.79 | 9.65 | 102 | 97.4 |

## Quantify Sample Summary Report

## Dataset: U:IQ4.PROTresults\170727M1\170727M1-81.qld

Last Altered: Thursday, August 03, 2017 14:05:57 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:06:32 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_81, Date: 28-Jul-2017, Time: 01:58:51, ID: 1700871-08 16-GW-16_MW28-20170712 0.11899, Description: 16-GW-16_MW28-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 29 13C8-PFOS | $507>79.9$ | 2.09 e4 | 2.02 e 4 | 0.119 | 0.951 | 3.89 | 3.85 | 13.0 | 115 | 109.2 |
| 2 | 30 13C2-PFDA | $515.1>469.9$ | 1.00 e 5 | 1.31 e 5 | 0.119 | 0.869 | 4.01 | 3.96 | 9.58 | 92.7 | 88.2 |
| 3 | 31 d3-N-MeFOSAA | $573.3>419$ | 2.16 e 4 | 1.30 e 5 | 0.119 | 0.013 | 4.03 | 3.98 | 2.08 | 1350 | 98.9 |
| 4 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 2.17 e 4 | 1.30 e 5 | 0.119 | 0.013 | 4.12 | 4.05 | 2.09 | 1380 | 101.1 |
| 5 | 33 13C2-PFUnA | $565>519.8$ | 1.09 e 5 | 1.30 e 5 | 0.119 | 0.928 | 4.17 | 4.12 | 10.5 | 94.6 | 90.1 |
| 6 | 34 13C2-PFDoA | $615>569.7$ | 9.27 e 3 | 1.30 e 5 | 0.119 | 0.071 | 4.34 | 4.28 | 0.892 | 105 | 100.3 |
| 7 | 37 13C5-PFHXA | $318>272.9$ | 1.31 e 5 | 1.31 e 5 | 0.119 | 1.000 | 3.19 | 3.15 | 5.00 | 42.0 | 100.0 |
| 8 | 38 13C3-PFHxS | $401.9>79.9$ | 2.05 e 4 | 2.05 e 4 | 0.119 | 1.000 | 3.56 | 3.49 | 12.5 | 105 | 100.0 |
| 9 | 39 13C8-PFOA | $421.3>376$ | 1.16 e 5 | 1.16 e 5 | 0.119 | 1.000 | 3.65 | 3.61 | 12.5 | 105 | 100.0 |
| 10 | 40 13C9-PFNA | $472.2>426.9$ | 1.30 e 5 | 1.30 e 5 | 0.119 | 1.000 | 3.83 | 3.79 | 12.5 | 105 | 100.0 |
| 11 | 41 13C4-PFOS | $503>79.9$ | 2.02 e 4 | 2.02 e 4 | 0.119 | 1.000 | 3.89 | 3.84 | 12.5 | 105 | 100.0 |
| 12 | 42 13C6-PFDA | $519.1>473.7$ | 1.31 e 5 | 1.31 e 5 | 0.119 | 1.000 | 4.01 | 3.96 | 12.5 | 105 | 100.0 |
| 13 | 43 13C7-PFUnA | $570.1>524.8$ | 1.30 e 5 | 1.30 e 5 | 0.119 | 1.000 | 4.17 | 4.13 | 12.5 | 105 | 100.0 |
| 14 | 44 Total PFBS | $299>79.7$ | 3.11 e 4 | 1.16 e 4 | 0.119 |  | 2.96 |  | 33.4 | 149 |  |
| 15 | 45 Total PFHxS | $398.9>79.6$ | 2.11 e 2 | 9.25 e 3 | 0.119 |  | 3.52 |  | 0.285 | 0.0391 |  |
| 16 | 46 Total PFOA | $413>368.7$ | 0.00e0 | 1.22 e 5 | 0.119 |  | 3.65 |  | 0.000 |  |  |
| 17 | 47 Total PFOS | $499>79.9$ | 4.39 e 1 | 2.09 e 4 | 0.119 |  | 3.89 |  | 0.000 |  |  |
| 18 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00 e 0 | 2.16 e 4 | 0.119 |  | 4.03 |  | 0.000 |  |  |
| 19 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00 e 0 | 2.17 e 4 | 0.119 |  | 4.17 |  | 0.000 |  |  |

## Quantify Totals Report MassLynx MassLynx V4.1 SCN945 SCN960

```
Dataset: U:\Q4.PRO\results\170727M1\170727M1-81.q|d
Last Altered: Thursday, August 03, 2017 14:05:57 Pacific Daylight Time
Printed:
    Thursday, August 03, 2017 14:06:19 Pacific Daylight Time
```


## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_81, Date: 28-Jul-2017, Time: 01:58:51, ID: 1700871-08 16-GW-16_MW28-20170712 0.11899, Description: 16-GW-16_MW28-20170712

## Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 3 PFBS | $299>79.7$ | 2.90 | 31117.045 | 11644.652 | 33.403 | bb | 148.8 |

## Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | 6 PFHxS | $398.9>79.6$ | 3.50 | 210.530 | 9247.029 | 0.285 | MM | 0.0 |

## Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |

## Total PFOS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 11 PFOS | $499>79.9$ | 3.85 | 43.872 | 20944.162 | 0.026 | MMI |  |  |

## Total N-Me-FOSAA

|  | \# Name | Trace | RT | Area | IS Area |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Total N-EtFOSAA

| \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| 14 N-EtFOSAA | $584.2>419$ |  | 21706.566 |  | Conc. |  |

## Quantify Sample Report

Printed: $\quad$ Thursday, August 03, 2017 14:06:19 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Name: 170727M1_81, Date: 28-Jul-2017, Time: 01:58:51, ID: 1700871-08 16-GW-16_MW28-20170712 0.11899, Description: 16-GW-16_MW28-20170712


F6:MRM of 2 channels,ES-
$299>99$
$2.608 e+005$

13C3-PFBS



13C2-PFHxA


## PFHpA



## Total PFHxS



18O2-PFHxS


## Dataset:

U:IQ4.PRO|results1170727M11170727M1-81.qld
Last Altered: Thursday, August 03, 2017 14:05:57 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:06:19 Pacific Daylight Time

Name: 170727M1_81, Date: 28-Jul-2017, Time: 01:58:51, ID: 1700871-08 16-GW-16_MW28-20170712 0.11899, Description: 16-GW-16_MW28-20170712

## Total PFOA



13C2-PFOA


13C5-PFNA


## Total PFOS




13C8-PFOS


## PFDA



13C2-PFDA


## Dataset:

U:IQ4.PRO|results1170727M11170727M1-81.qld
Last Altered: Thursday, August 03, 2017 14:05:57 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:06:19 Pacific Daylight Time

Name: 170727M1_81, Date: 28-Jul-2017, Time: 01:58:51, ID: 1700871-08 16-GW-16_MW28-20170712 0.11899, Description: 16-GW-16_MW28-20170712

## PFUnA



13C2-PFUnA


d3-N-MeFOSAA
F47:MRM of 1 channel,ES$573.3>419$ $3.148 \mathrm{e}+005$

d5-N-EtFOSAA




13C2-PFDoA


## Dataset:

U:IQ4.PRO|results1170727M11170727M1-81.qld
Last Altered: Thursday, August 03, 2017 14:05:57 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:06:19 Pacific Daylight Time

Name: 170727M1_81, Date: 28-Jul-2017, Time: 01:58:51, ID: 1700871-08 16-GW-16_MW28-20170712 0.11899, Description: 16-GW-16_MW28-20170712

## 13C5-PFHxA



13C4-PFOS
13C4-PFOS


13C3-PFHxS


13C6-PFDA


13C8-PFOA


13C9-PFNA


13C7-PFUnA

Quantify Sample Summary Report
MassLynx MassLynx V4.1 SCN 945

## Dataset: U:IQ4.PRO|results1170731M11170731M1-29.qld <br> Last Altered: Wednesday, August 02, 2017 16:17:55 Pacific Daylight Time <br> Printed: Wednesday, August 02, 2017 16:18:26 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
## Name: 170731M1_29, Date: 31-Jul-2017, Time: 17:20:04, ID: 1700871-08 16-GW-16_MW28-20170712 0.11899, Description: 16-GW-16_MW28-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 18 PFTrDA | $662.9>618.9$ |  | $1.82 e 3$ | 0.1190 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | $1.33 e 4$ | 0.1190 |  | 4.68 |  |  |  |  |
| 3 | $35 ~ 13 C 2-P F T e D A ~$ | $714.8>669.6$ | $1.33 e 4$ | 2.00 e 4 | 0.1190 | 0.762 | 4.68 | 4.65 | 8.31 | 91.6 | 87.2 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | $2.00 e 4$ | 2.00 e 4 | 0.1190 | 1.000 | 4.17 | 4.14 | 12.5 | 105 | 100.0 |

## Dataset: <br> U:\Q4.PRO\results\170731M1\170731M1-29.qld

Last Altered: Wednesday, August 02, 2017 16:17:55 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:18:26 Pacific Daylight Time

Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:QQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_29, Date: 31-Jul-2017, Time: 17:20:04, ID: 1700871-08 16-GW-16_MW28-20170712 0.11899, Description: 16-GW-16_MW28-20170712

## PFTeDA

170731M1_29 Smooth(Mn,1x2) F58:MRM of 4 channels,ES-


F58:MRM of 4 channels,ES-16-GW-16_MW28-20170712 1700871-08 16-GW-16_MW28-20170712 0.11899712.9 > 369


## 13C2-PFTeDA

170731M1_29 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-


PFTrDA


170731M1_29 Smooth(Mn,1x2)
F57:MRM of 2 channels,ES-
16-GW-16_MW28-20170712 1700871-08 16-GW-16_MW28-20170712 $0.11899662 .9>319$


13C2-PFTeDA
170731M1_29 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-


## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945

```
Dataset: U:\Q4.PRO\results\170731M1\170731M1-29.qld
Last Altered: Wednesday, August 02, 2017 16:17:55 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:18:26 Pacific Daylight Time
```


## Name: 170731M1_29, Date: 31-Jul-2017, Time: 17:20:04, ID: 1700871-08 16-GW-16_MW28-20170712 0.11899, Description: 16-GW-16_MW28-20170712

## 13C7-PFUnA

170731M1_29 Smooth(Mn,1x2) F46:MRM of 1 channel,ES


## Quantify Sample Summary Report

## Dataset: U:IQ4.PROTresults\170727M1\170727M1-82.qld

Last Altered: Thursday, August 03, 2017 14:08:20 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:08:35 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:IQ4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_82, Date: 28-Jul-2017, Time: 02:09:38, ID: 1700871-09 16-GW-16_MW19-20170712 0.11913, Description: 16-GW-16_MW19-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ | 4.03 e 4 | 1.38 e 4 | 0.119 |  | 2.96 | 2.90 | 36.6 | 163 |  |
| 2 | 4 PFHxA | 313.2 > 268.9 | 8.07e4 | 4.57 e 4 | 0.119 |  | 3.19 | 3.15 | 8.84 | 50.2 |  |
| 3 | 5 PFHpA | $363>318.9$ | 7.93 e 3 | 1.11 e 5 | 0.119 |  | 3.45 | 3.41 | 0.895 | 5.33 |  |
| 4 | 6 PFHxS | $398.9>79.6$ | 4.06 e 3 | 1.13 e 4 | 0.119 |  | 3.56 | 3.48 | 4.51 | 21.6 |  |
| 5 | 7 PFOA | $413>368.7$ | 1.93 e 3 | 1.50 e 5 | 0.119 |  | 3.65 | 3.62 | 0.161 |  |  |
| 6 | 9 PFNA | $462.9>418.8$ | 1.97 e 2 | 1.17 e 5 | 0.119 |  | 3.83 | 3.79 | 0.0209 |  |  |
| 7 | 11 PFOS | $499>79.9$ | 7.17 e 2 | 2.57 e 4 | 0.119 |  | 3.89 | 3.84 | 0.349 | 2.21 |  |
| 8 | 12 PFDA | $513>468.8$ | 1.83 e 2 | 1.19 e 5 | 0.119 |  | 4.01 | 3.99 | 0.0192 |  |  |
| 9 | 13 N-MeFOSAA | $570.1>419$ |  | 2.57 e 4 | 0.119 |  | 4.03 |  |  |  |  |
| 10 | 14 N -EtFOSAA | $584.2>419$ |  | 2.67 e 4 | 0.119 |  | 4.10 |  |  |  |  |
| 11 | 15 PFUnA | $562.9>518.9$ | 2.94 e 2 | 1.15 e 5 | 0.119 |  | 4.11 | 4.12 | 0.0319 |  |  |
| 12 | 17 PFDoA | $612.9>318.8$ |  | 1.18 e 4 | 0.119 |  | 4.34 |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 1.38 e 4 | 1.50 e 5 | 0.119 | 0.031 | 2.96 | 2.90 | 0.460 | 126 | 119.8 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 4.57 e 4 | 1.50 e 5 | 0.119 | 0.275 | 3.19 | 3.15 | 1.52 | 46.5 | 110.7 |
| 15 | 24 13C4-PFHpA | 367.2 > 321.8 | 1.11 e 5 | 1.50 e 5 | 0.119 | 0.260 | 3.45 | 3.41 | 3.69 | 119 | 113.7 |
| 16 | 25 18O2-PFHxS | $403>102.6$ | 1.13 e 4 | 2.50 e 4 | 0.119 | 0.402 | 3.56 | 3.48 | 5.62 | 117 | 111.8 |
| 17 | 26 13C2-PFOA | $414.9>369.7$ | 1.50 e 5 | 1.34 e 5 | 0.119 | 1.042 | 3.65 | 3.62 | 14.0 | 112 | 107.1 |
| 18 | 27 13C5-PFNA | 468.2 > 422.9 | 1.17 e 5 | 1.40 e 5 | 0.119 | 0.792 | 3.83 | 3.79 | 10.5 | 111 | 105.8 |

## Quantify Sample Summary Report

## Dataset: U:IQ4.PROTresults\170727M1\170727M1-82.qld

Last Altered: Thursday, August 03, 2017 14:08:20 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:08:47 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_82, Date: 28-Jul-2017, Time: 02:09:38, ID: 1700871-09 16-GW-16_MW19-20170712 0.11913, Description: 16-GW-16_MW19-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 29 13C8-PFOS | $507>79.9$ | 2.57 e 4 | 2.47 e 4 | 0.119 | 0.951 | 3.89 | 3.84 | 13.0 | 115 | 109.4 |
| 2 | 30 13C2-PFDA | $515.1>469.9$ | 1.19 e 5 | 1.37 e 5 | 0.119 | 0.869 | 4.01 | 3.96 | 10.9 | 105 | 100.3 |
| 3 | 31 d3-N-MeFOSAA | $573.3>419$ | 2.57e4 | 1.42 e 5 | 0.119 | 0.013 | 4.03 | 3.99 | 2.26 | 1470 | 107.6 |
| 4 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 2.67e4 | 1.42 e 5 | 0.119 | 0.013 | 4.12 | 4.05 | 2.35 | 1550 | 113.7 |
| 5 | 33 13C2-PFUnA | $565>519.8$ | 1.15 e 5 | 1.42 e 5 | 0.119 | 0.928 | 4.17 | 4.12 | 10.1 | 91.6 | 87.3 |
| 6 | 34 13C2-PFDoA | $615>569.7$ | 1.18 e 4 | 1.42 e 5 | 0.119 | 0.071 | 4.34 | 4.28 | 1.04 | 123 | 117.2 |
| 7 | 37 13C5-PFHXA | $318>272.9$ | 1.50 e 5 | 1.50 e 5 | 0.119 | 1.000 | 3.19 | 3.15 | 5.00 | 42.0 | 100.0 |
| 8 | 38 13C3-PFHxS | $401.9>79.9$ | 2.50 e 4 | 2.50 e 4 | 0.119 | 1.000 | 3.56 | 3.48 | 12.5 | 105 | 100.0 |
| 9 | 39 13C8-PFOA | $421.3>376$ | 1.34 e 5 | 1.34 e 5 | 0.119 | 1.000 | 3.65 | 3.61 | 12.5 | 105 | 100.0 |
| 10 | 40 13C9-PFNA | $472.2>426.9$ | 1.40 e 5 | 1.40 e 5 | 0.119 | 1.000 | 3.83 | 3.79 | 12.5 | 105 | 100.0 |
| 11 | 41 13C4-PFOS | $503>79.9$ | 2.47 e 4 | 2.47 e 4 | 0.119 | 1.000 | 3.89 | 3.84 | 12.5 | 105 | 100.0 |
| 12 | 42 13C6-PFDA | $519.1>473.7$ | 1.37 e 5 | 1.37 e 5 | 0.119 | 1.000 | 4.01 | 3.96 | 12.5 | 105 | 100.0 |
| 13 | 43 13C7-PFUnA | $570.1>524.8$ | 1.42 e 5 | 1.42 e 5 | 0.119 | 1.000 | 4.17 | 4.12 | 12.5 | 105 | 100.0 |
| 14 | 44 Total PFBS | $299>79.7$ | 4.03 e 4 | 1.38 e 4 | 0.119 |  | 2.96 |  | 36.6 | 163 |  |
| 15 | 45 Total PFHxS | $398.9>79.6$ | 4.06 e 3 | 1.13 e 4 | 0.119 |  | 3.52 |  | 4.51 | 21.6 |  |
| 16 | 46 Total PFOA | $413>368.7$ | 1.93 e 3 | 1.50 e 5 | 0.119 |  | 3.65 |  | 0.000 |  |  |
| 17 | 47 Total PFOS | $499>79.9$ | 7.17 e 2 | 2.57 e 4 | 0.119 |  | 3.89 |  | 0.349 | 2.21 |  |
| 18 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00 e 0 | 2.57 e 4 | 0.119 |  | 4.03 |  | 0.000 |  |  |
| 19 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00 e 0 | 2.67 e 4 | 0.119 |  | 4.17 |  | 0.000 |  |  |

## Quantify Totals Report MassLynx MassLynx V4.1 SCN945 SCN960

```
Dataset: U:\Q4.PRO\results\170727M1\170727M1-82.q|d
Last Altered: Thursday, August 03, 2017 14:08:20 Pacific Daylight Time
Printed:
    Thursday, August 03, 2017 14:08:35 Pacific Daylight Time
```


## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_82, Date: 28-Jul-2017, Time: 02:09:38, ID: 1700871-09 16-GW-16_MW19-20170712 0.11913, Description: 16-GW-16_MW19-20170712

## Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 3 PFBS | $299>79.7$ | 2.90 | 40343.504 | 13786.057 | 36.580 | bb | 162.9 |  |

## Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| 1 | 6 PFHxS | $398.9>79.6$ | 3.48 | 4058.937 | 11261.486 | 4.505 | bb | 21.6 |

## Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | 7 PFOA | $413>368.7$ | 3.62 | 1929.892 | 149696.406 | 0.161 | MMI |

## Total PFOS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| ---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 11 PFOS | $499>79.9$ | 3.84 | 717.069 | 25692.436 | 0.349 | $M M$ | 2.2 |  |

## Total N-Me-FOSAA

|  | \# Name | Trace | RT | Area | IS Area |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Total N-EtFOSAA

| \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| 14 N-EtFOSAA | $584.2>419$ |  | 26705.422 |  | MM-I |  |

## Quantify Sample Report

Printed: Thursday, August 03, 2017 14:08:35 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO|CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_82, Date: 28-Jul-2017, Time: 02:09:38, ID: 1700871-09 16-GW-16_MW19-20170712 0.11913, Description: 16-GW-16_MW19-20170712

## Total PFBS <br> F6:MRM of 2 channels,ES- $299>79.7$ $7.688 \mathrm{e}+005$



13C3-PFBS




13C4-PFHpA

## PFHpA

| PFHpA |
| :--- |
|  |
|  |
|  |
| F14:MRM of 2 channels,ES- |
| $363>318.9$ |




Total PFHxS


1802-PFHxS


## Dataset:

U:IQ4.PROIresults1170727M11170727M1-82.qld
Last Altered: Thursday, August 03, 2017 14:08:20 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:08:35 Pacific Daylight Time

Name: 170727M1_82, Date: 28-Jul-2017, Time: 02:09:38, ID: 1700871-09 16-GW-16_MW19-20170712 0.11913, Description: 16-GW-16_MW19-20170712

## Total PFOA




13C2-PFOA


13C5-PFNA


## Total PFOS



13C8-PFOS


PFDA


13C2-PFDA


## Dataset:

U:IQ4.PROTresults1170727M11170727M1-82.qld
Last Altered: Thursday, August 03, 2017 14:08:20 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:08:35 Pacific Daylight Time

Name: 170727M1_82, Date: 28-Jul-2017, Time: 02:09:38, ID: 1700871-09 16-GW-16_MW19-20170712 0.11913, Description: 16-GW-16_MW19-20170712

## PFUnA



## N-MeFOSAA


d3-N-MeFOSAA
F47:MRM of 1 channel,ES-
F47:MRM of $\begin{array}{r}1 \text { channel,ES- } \\ 573.3>419\end{array}$ $573.3>419$
$3.748 \mathrm{e}+005$


N-EtFOSAA

d5-N-EtFOSAA


PFDoA


13C2-PFDoA


## Dataset:

U:IQ4.PROIresults1170727M11170727M1-82.qld
Last Altered: Thursday, August 03, 2017 14:08:20 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:08:35 Pacific Daylight Time

Name: 170727M1_82, Date: 28-Jul-2017, Time: 02:09:38, ID: 1700871-09 16-GW-16_MW19-20170712 0.11913, Description: 16-GW-16_MW19-20170712

## 13C5-PFHxA



13C4-PFOS
13C4-PFOS F31.MRM of 1 channe


13C3-PFHxS


13C6-PFDA


13C8-PFOA


13C7-PFUnA


13C9-PFNA


Quantify Sample Summary Report
MassLynx MassLynx V4.1 SCN 945

|  | U:IQ4.PRO\results\170731M11170731M1-30.qld |
| :--- | :--- |
| Dataset: |  |
| Last Altered: | Wednesday, August 02, 2017 16:19:38 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 16:20:51 Pacific Daylight Time |

Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
Name: 170731M1_30, Date: 31-Jul-2017, Time: 17:30:50, ID: 1700871-09 16-GW-16_MW19-20170712 0.11913, Description: 16-GW-16_MW19-20170712

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 18 PFTrDA | $662.9>618.9$ |  | 1.72 e 3 | 0.1191 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | 1.23 e 4 | 0.1191 |  | 4.68 |  |  |  |  |
| 3 | 35 13C2-PFTeDA | 714.8 > 669.6 | 1.23 e 4 | 2.27 e 4 | 0.1191 | 0.762 | 4.68 | 4.65 | 6.75 | 74.3 | 70.8 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | 2.27 e 4 | 2.27e4 | 0.1191 | 1.000 | 4.17 | 4.15 | 12.5 | 105 | 100.0 |

## Dataset: U:\Q4.PRO\results\170731M1\170731M1-30.qld

Last Altered: Wednesday, August 02, 2017 16:19:38 Pacific Daylight Time
Printed: $\quad$ Wednesday, August 02, 2017 16:20:51 Pacific Daylight Time

## Method: U:IQ4.PRO\MethDB|PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

## Name: 170731M1_30, Date: 31-Jul-2017, Time: 17:30:50, ID: 1700871-09 16-GW-16_MW19-20170712 0.11913, Description: 16-GW-16_MW19-20170712

## PFTeDA

170731M1_30 Smooth(Mn,1x2) F58:MRM of 4 channels,ES-


170731M1_30 Smooth(Mn,1x2)
F58:MRM of 4 channels,ES-16-GW-16_MW 19-20170712 1700871-09 16-GW-16_MW19-20170712 0.11913712.9 > 369


## 13C2-PFTeDA

170731M1_30 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-


Reviewed: WJL 8/4/2017

PFTrDA


170731M1_30 Smooth(Mn,1x2)
F57:MRM of 2 channels,ES-
16-GW-16 MW19-20170712 1700871-09 16-GW-16 MW19-20170712 0.11913662.9 > 319


13C2-PFTeDA
170731M1_30 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-


Quantify Sample Report
Vista Analytical Laboratory

Last Altered: Wednesday, August 02, 2017 16:19:38 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:20:51 Pacific Daylight Time

## Name: 170731M1_30, Date: 31-Jul-2017, Time: 17:30:50, ID: 1700871-09 16-GW-16_MW19-20170712 0.11913, Description: 16-GW-16_MW19-20170712

## 13C7-PFUnA

170731M1_30 Smooth(Mn, 1x2) F46:MRM of 1 channel,ES-


| Dataset: | U:\Q4.PRO\results\170727M1\170727M1-83.qld |
| :--- | :--- |
| Last Altered: | Wednesday, August 02, 2017 15:49:13 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 15:49:29 Pacific Daylight Time |

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:\Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_83, Date: 28-Jul-2017, Time: 02:20:24, ID: 1700871-10 EB04-20170713 0.11646, Description: EB04-20170713

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ | 1.51 e 1 | 2.17 e 4 | 0.1165 |  | 2.96 | 2.90 | 0.00870 |  |  |
| 2 | 4 PFHxA | 313.2 > 268.9 |  | 7.30 e 4 | 0.1165 |  | 3.19 |  |  |  |  |
| 3 | 5 PFHpA | $363>318.9$ |  | 1.64 e 5 | 0.1165 |  | 3.45 |  |  |  |  |
| 4 | 6 PFHxS | 398.9 > 79.6 | 4.86 e 1 | 1.50 e 4 | 0.1165 |  | 3.56 | 3.49 | 0.0406 |  |  |
| 5 | 7 PFOA | $413>368.7$ | 6.94 e 2 | 1.90 e 5 | 0.1165 |  | 3.65 | 3.64 | 0.0456 |  |  |
| 6 | 9 PFNA | $462.9>418.8$ |  | 1.44 e 5 | 0.1165 |  | 3.83 |  |  |  |  |
| 7 | 11 PFOS | $499>79.9$ | 4.21 e 1 | 2.87 e 4 | 0.1165 |  | 3.89 | 3.79 | 0.0184 |  |  |
| 8 | 12 PFDA | $513>468.8$ | 1.12 e 2 | 1.27 e 5 | 0.1165 |  | 4.01 | 3.98 | 0.0110 |  |  |
| 9 | $13 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ |  | 2.05 e 4 | 0.1165 |  | 4.03 |  |  |  |  |
| 10 | $14 \mathrm{~N}-\mathrm{EtFOSAA}$ | $584.2>419$ |  | 1.92 e 4 | 0.1165 |  | 4.10 |  |  |  |  |
| 11 | 15 PFUnA | $562.9>518.9$ | 1.74 e 2 | 1.05 e 5 | 0.1165 |  | 4.11 | 4.16 | 0.0207 |  |  |
| 12 | 17 PFDoA | $612.9>318.8$ |  | 5.72e3 | 0.1165 |  | 4.34 |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 2.17 e 4 | 2.47 e 5 | 0.1165 | 0.031 | 2.96 | 2.91 | 0.439 | 123 | 114.4 |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 7.30 e 4 | 2.47 e 5 | 0.1165 | 0.275 | 3.19 | 3.16 | 1.48 | 46.1 | 107.3 |
| 15 | 24 13C4-PFHpA | $367.2>321.8$ | 1.64 e 5 | 2.47 e 5 | 0.1165 | 0.260 | 3.45 | 3.41 | 3.32 | 110 | 102.1 |
| 16 | 25 18O2-PFHxS | $403>102.6$ | 1.50 e 4 | 3.49 e 4 | 0.1165 | 0.402 | 3.56 | 3.48 | 5.35 | 114 | 106.4 |
| 17 | 26 13C2-PFOA | $414.9>369.7$ | 1.90 e 5 | 1.90 e 5 | 0.1165 | 1.042 | 3.65 | 3.62 | 12.5 | 103 | 96.3 |
| 18 | 27 13C5-PFNA | 468.2 > 422.9 | 1.44 e 5 | 1.86 e 5 | 0.1165 | 0.792 | 3.83 | 3.79 | 9.64 | 105 | 97.4 |
| 19 | 29 13C8-PFOS | $507>79.9$ | 2.87 e 4 | 2.79 e 4 | 0.1165 | 0.951 | 3.89 | 3.84 | 12.9 | 116 | 108.3 |

## Dataset: <br> U:\Q4.PRO\results\170727M1\170727M1-83.qld

Last Altered: Wednesday, August 02, 2017 15:49:13 Pacific Daylight Time Printed: Wednesday, August 02, 2017 15:49:40 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_83, Date: 28-Jul-2017, Time: 02:20:24, ID: 1700871-10 EB04-20170713 0.11646, Description: EB04-20170713

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 30 13C2-PFDA | $515.1>469.9$ | 1.27 e 5 | 1.61 e 5 | 0.1165 | 0.869 | 4.01 | 3.96 | 9.87 | 97.5 | 90.8 |
| 2 | 31 d3-N-MeFOSAA | $573.3>419$ | 2.05 e 4 | 1.29 e 5 | 0.1165 | 0.013 | 4.03 | 3.99 | 1.98 | 1310 | 94.0 |
| 3 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 1.92 e 4 | 1.29 e 5 | 0.1165 | 0.013 | 4.12 | 4.05 | 1.86 | 1260 | 90.1 |
| 4 | 33 13C2-PFUnA | $565>519.8$ | 1.05 e 5 | 1.29 e 5 | 0.1165 | 0.928 | 4.17 | 4.12 | 10.2 | 94.2 | 87.8 |
| 5 | 34 13C2-PFDoA | $615>569.7$ | 5.72 e 3 | 1.29 e 5 | 0.1165 | 0.071 | 4.34 | 4.28 | 0.553 | 66.7 | 62.2 |
| 6 | 37 13C5-PFHxA | $318>272.9$ | 2.47 e 5 | 2.47 e 5 | 0.1165 | 1.000 | 3.19 | 3.16 | 5.00 | 42.9 | 100.0 |
| 7 | 38 13C3-PFHxS | $401.9>79.9$ | 3.49 e 4 | 3.49 e 4 | 0.1165 | 1.000 | 3.56 | 3.48 | 12.5 | 107 | 100.0 |
| 8 | 39 13C8-PFOA | $421.3>376$ | 1.90 e 5 | 1.90 e5 | 0.1165 | 1.000 | 3.65 | 3.61 | 12.5 | 107 | 100.0 |
| 9 | 40 13C9-PFNA | $472.2>426.9$ | 1.86 e 5 | 1.86 e 5 | 0.1165 | 1.000 | 3.83 | 3.79 | 12.5 | 107 | 100.0 |
| 10 | 41 13C4-PFOS | $503>79.9$ | 2.79 e 4 | 2.79 e 4 | 0.1165 | 1.000 | 3.89 | 3.84 | 12.5 | 107 | 100.0 |
| 11 | 42 13C6-PFDA | $519.1>473.7$ | 1.61 e 5 | 1.61 e 5 | 0.1165 | 1.000 | 4.01 | 3.96 | 12.5 | 107 | 100.0 |
| 12 | 43 13C7-PFUnA | $570.1>524.8$ | 1.29 e 5 | 1.29 e 5 | 0.1165 | 1.000 | 4.17 | 4.13 | 12.5 | 107 | 100.0 |
| 13 | 44 Total PFBS | $299>79.7$ | 1.51 e 1 | 2.17 e 4 | 0.1165 |  | 2.96 |  | 0.000 |  |  |
| 14 | 45 Total PFHxS | $398.9>79.6$ | 4.86 e 1 | 1.50 e 4 | 0.1165 |  | 3.52 |  | 0.000 |  |  |
| 15 | 46 Total PFOA | $413>368.7$ | 6.94 e 2 | 1.90 e5 | 0.1165 |  | 3.65 |  | 0.000 |  |  |
| 16 | 47 Total PFOS | $499>79.9$ | 4.21 e 1 | 2.87 e 4 | 0.1165 |  | 3.89 |  | 0.000 |  |  |
| 17 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00 e 0 | 2.05 e 4 | 0.1165 |  | 4.03 |  | 0.000 |  |  |
| 18 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00e0 | 1.92 e 4 | 0.1165 |  | 4.17 |  | 0.000 |  |  |

## Quantify Totals Report MassLynx MassLynx V4.1 SCN 945

| Dataset: | U:\Q4.PRO\results\170727M1\170727M1-83.qld |
| :--- | :--- |
| Last Altered: | Wednesday, August 02, 2017 15:49:13 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 15:49:29 Pacific Daylight Time |

Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_83, Date: 28-Jul-2017, Time: 02:20:24, ID: 1700871-10 EB04-20170713 0.11646, Description: EB04-20170713 Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 3 PFBS | $299>79.7$ | 2.90 | 15.095 | 21697.008 | 0.009 | bbl |  |

## Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 6 PFHxS | $398.9>79.6$ | 3.49 | 48.586 | 14953.801 | 0.041 | bbl |  |

## Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | 7 PFOA | $413>368.7$ | 3.64 | 693.681 | 190209.328 | 0.046 | bbl |  |

## Total PFOS

| \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| 11 PFOS | $499>79.9$ | 3.79 | 42.105 | 28665.943 | 0.018 | MMI |  |

Total N-Me-FOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| 1 | 13 N-MeFOSAA | $570.1>419$ |  | 20455.717 | Conc. |  |  |

Total N-EtFOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response Primary Flags |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 |  |  |  |  |  |  |

Dataset:
U:\Q4.PRO\results\170727M1\170727M1-83.qld
Last Altered: Wednesday, August 02, 2017 15:49:13 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 15:49:29 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_83, Date: 28-Jul-2017, Time: 02:20:24, ID: 1700871-10 EB04-20170713 0.11646, Description: EB04-20170713

\section*{Total PFBS <br> | F6:MRM of 2 channels,ES- |
| ---: |
| $299>79.7$ |
| $4.716 \mathrm{e}+002$ |
| 100 |}



13C3-PFBS


Reviewed: WJL 8/4/2017

PFHxA


13C2-PFHxA


## PFHpA



F14:MRM of 2 channels,ES-
$363>169$


13C4-PFHpA


Total PFHxS


1802-PFHxS

Dataset:
U:\Q4.PRO\results\170727M1\170727M1-83.qld
Last Altered: Wednesday, August 02, 2017 15:49:13 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 15:49:29 Pacific Daylight Time

## Name: 170727M1_83, Date: 28-Jul-2017, Time: 02:20:24, ID: 1700871-10 EB04-20170713 0.11646, Description: EB04-20170713

## Total PFOA <br> F19:MRM of 2 channels,ES- $413>368.7$ $1.175 \mathrm{e}+004$

## PFNA



13C5-PFNA


Total PFOS

F30:MRM of 2 channels,ES-


13C8-PFOS


PFDA
F35:MRM of 2 channels,ES- $\begin{array}{r}513>468.8 \\ 1.842 \mathrm{e}+003\end{array}$



## Dataset: <br> U:\Q4.PRO\results\170727M1\170727M1-83.qld

Last Altered: Wednesday, August 02, 2017 15:49:13 Pacific Daylight Time Printed: $\quad$ Wednesday, August 02, 2017 15:49:29 Pacific Daylight Time

## Name: 170727M1_83, Date: 28-Jul-2017, Time: 02:20:24, ID: 1700871-10 EB04-20170713 0.11646, Description: EB04-20170713

## PFUnA



13C2-PFUnA


## N-MeFOSAA



d3-N-MeFOSAA
F47:MRM of 1 channel,ES$573.3>419$ $3.054 \mathrm{e}+005$

N-EtFOSAA


d5-N-EtFOSAA


## PFDoA




| Dataset: | U:\Q4.PRO\results\170727M1\170727M1-83.qld |
| :--- | :--- |
| Last Altered: | Wednesday, August 02, 2017 15:49:13 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 15:49:29 Pacific Daylight Time |

Name: 170727M1_83, Date: 28-Jul-2017, Time: 02:20:24, ID: 1700871-10 EB04-20170713 0.11646, Description: EB04-20170713

## 13C5-PFHxA



13C3-PFHxS


13C6-PFDA


13C8-PFOA


13C9-PFNA


13C7-PFUnA


Quantify Sample Summary Report
MassLynx MassLynx V4.1 SCN 945

|  | U:IQ4.PRO\results\170731M11170731M1-31.qld |
| :--- | :--- |
| Dataset: |  |
| Last Altered: | Wednesday, August 02, 2017 16:21:55 Pacific Daylight Time |
| Printed: | Wednesday, August 02, 2017 16:22:31 Pacific Daylight Time |

Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
Name: 170731M1_31, Date: 31-Jul-2017, Time: 17:41:29, ID: 1700871-10 EB04-20170713 0.11646, Description: EB04-20170713

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 18 PFTrDA | $662.9>618.9$ |  | 1.51 e 3 | 0.1165 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | 5.30 e 3 | 0.1165 |  | 4.68 |  |  |  |  |
| 3 | 35 13C2-PFTeDA | $714.8>669.6$ | 5.30 e 3 | 2.38 e 4 | 0.1165 | 0.762 | 4.68 | 4.65 | 2.78 | 31.3 | 29.2 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | 2.38 e 4 | 2.38 e 4 | 0.1165 | 1.000 | 4.17 | 4.14 | 12.5 | 107 | 100.0 |

## Dataset: <br> U:\Q4.PRO\results\170731M1\170731M1-31.qld

Last Altered: Wednesday, August 02, 2017 16:21:55 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:22:31 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_31, Date: 31-Jul-2017, Time: 17:41:29, ID: 1700871-10 EB04-20170713 0.11646, Description: EB04-20170713

## PFTeDA

170731M1 31 Smooth(Mn, 1x2)
EB04-20170713 1700871-10 EB04-20170713 $0.11646 \quad$ F58:MRM of 4 channels, ES$\begin{array}{lllll}100 & 4.43 & 4.67 & 4.81 & 4.90^{712.6>668 \mathrm{e}+003}\end{array}$


170731M1_31 Smooth(Mn,1x2)
EB04-20170713 1700871-10 EB04-20170713 0.11646


## 13C2-PFTeDA

170731M1_31 Smooth(Mn,1x2)
EB04-20170713 1700871 F59:MRM of 2 channels,ES $\quad 714.8>669.6$


Reviewed: WJL 8/4/2017

## PFTrDA




13C2-PFTeDA
170731M1_31 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-EB04-20170713 1700871-10 FB04-20170713 $0.11646 \quad 714.8>6696$



## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945

```
Dataset: U:\Q4.PRO\results\170731M1\170731M1-31.qld
Last Altered: Wednesday, August 02, 2017 16:21:55 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:22:31 Pacific Daylight Time
```


## Name: 170731M1_31, Date: 31-Jul-2017, Time: 17:41:29, ID: 1700871-10 EB04-20170713 0.11646, Description: EB04-20170713

## 13C7-PFUnA

170731M1 31 Smooth(Mn,1x2) F46:MRM of 1 channel,ES-

| EB04-20170713 1700871-10 EB04-20170713 0.11646 | $570.1>524.8$ |
| :---: | ---: |
| 13C7-PFUnA;4.14;2.38e4;384146;bb | $3.855 \mathrm{e}+005$ |



## Quantify Sample Summary Report

## Dataset: U:IQ4.PRO\results\170727M1\170727M1-84.qld

Last Altered: Thursday, August 03, 2017 14:10:02 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:10:14 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:IQ4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_84, Date: 28-Jul-2017, Time: 02:31:03, ID: 1700871-11 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec | *See dilution. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ | 4.68 e 5 | 8.52e3 | 0.120 |  | 2.96 | 2.91 | 687 | 3040 E* |  |  |
| 2 | 4 PFHxA | $313.2>268.9$ | 2.77 e 6 | 3.68 e 4 | 0.120 |  | 3.19 | 3.15 | 376 | 2150 E* |  |  |
| 3 | 5 PFHpA | $363>318.9$ | 1.66 e 3 | 1.25 e 5 | 0.120 |  | 3.45 | 3.41 | 0.166 | 0.360 |  |  |
| 4 | 6 PFHxS | $398.9>79.6$ | 3.46 e 2 | 1.23 e 4 | 0.120 |  | 3.56 | 3.49 | 0.351 | 0.375 |  |  |
| 5 | 7 PFOA | $413>368.7$ | 1.97 e 3 | 1.53 e 5 | 0.120 |  | 3.65 | 3.63 | 0.161 |  |  |  |
| 6 | 9 PFNA | $462.9>418.8$ |  | 1.24 e 5 | 0.120 |  | 3.83 |  |  |  |  |  |
| 7 | 11 PFOS | $499>79.9$ | 1.99 e 2 | 2.41 e 4 | 0.120 |  | 3.89 | 3.84 | 0.104 | 0.285 |  |  |
| 8 | 12 PFDA | $513>468.8$ | 1.96 e 2 | 1.09 e 5 | 0.120 |  | 4.01 | 3.95 | 0.0226 |  |  |  |
| 9 | $13 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ |  | 2.12 e 4 | 0.120 |  | 4.03 |  |  |  |  |  |
| 10 | $14 \mathrm{~N}-E t F O S A A$ | $584.2>419$ |  | 1.99 e 4 | 0.120 |  | 4.10 |  |  |  |  |  |
| 11 | 15 PFUnA | $562.9>518.9$ |  | 8.23 e 4 | 0.120 |  | 4.11 |  |  |  |  |  |
| 12 | 17 PFDoA | $612.9>318.8$ |  | 3.89e3 | 0.120 |  | 4.34 |  |  |  |  |  |
| 13 | 22 13C3-PFBS | $302>98.8$ | 8.52e3 | 1.19 e 5 | 0.120 | 0.031 | 2.96 | 2.91 | 0.358 | 96.9 | 93.3 |  |
| 14 | 23 13C2-PFHxA | $315>269.8$ | 3.68 e 4 | 1.19 e 5 | 0.120 | 0.275 | 3.19 | 3.15 | 1.55 | 46.7 | 112.5 |  |
| 15 | 24 13C4-PFHpA | $367.2>321.8$ | 1.25 e 5 | 1.19 e 5 | 0.120 | 0.260 | 3.45 | 3.41 | 5.25 | 168 | 161.6 |  |
| 16 | 25 18O2-PFHxS | $403>102.6$ | 1.23 e 4 | 2.78 e 4 | 0.120 | 0.402 | 3.56 | 3.49 | 5.54 | 114 | 110.2 |  |
| 17 | 26 13C2-PFOA | $414.9>369.7$ | 1.53 e 5 | 1.45 e 5 | 0.120 | 1.042 | 3.65 | 3.62 | 13.2 | 105 | 101.2 |  |
| 18 | 27 13C5-PFNA | $468.2>422.9$ | 1.24 e 5 | 1.46 e 5 | 0.120 | 0.792 | 3.83 | 3.79 | 10.7 | 112 | 107.6 |  |

## Quantify Sample Summary Report

## Dataset: U:IQ4.PRO\results\170727M1\170727M1-84.qld

Last Altered: Thursday, August 03, 2017 14:10:02 Pacific Daylight Time Printed: $\quad$ Thursday, August 03, 2017 14:10:27 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_84, Date: 28-Jul-2017, Time: 02:31:03, ID: 1700871-11 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 29 13C8-PFOS | $507>79.9$ | 2.41 e4 | 2.27 e 4 | 0.120 | 0.951 | 3.89 | 3.84 | 13.2 | 116 | 111.4 |
| 2 | 30 13C2-PFDA | $515.1>469.9$ | 1.09e5 | 1.31 e 5 | 0.120 | 0.869 | 4.01 | 3.96 | 10.3 | 98.7 | 95.0 |
| 3 | 31 d3-N-MeFOSAA | $573.3>419$ | 2.12 e 4 | 9.32 e 4 | 0.120 | 0.013 | 4.03 | 3.99 | 2.84 | 1820 | 135.2 |
| 4 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 1.99 e4 | 9.32 e 4 | 0.120 | 0.013 | 4.12 | 4.05 | 2.67 | 1750 | 129.5 |
| 5 | 33 13C2-PFUnA | $565>519.8$ | 8.23 e 4 | 9.32 e 4 | 0.120 | 0.928 | 4.17 | 4.12 | 11.0 | 98.8 | 95.2 |
| 6 | 34 13C2-PFDoA | $615>569.7$ | 3.89e3 | 9.32 e 4 | 0.120 | 0.071 | 4.34 | 4.28 | 0.522 | 61.0 | 58.7 |
| 7 | 37 13C5-PFHXA | $318>272.9$ | 1.19 e 5 | 1.19 e 5 | 0.120 | 1.000 | 3.19 | 3.15 | 5.00 | 41.5 | 100.0 |
| 8 | 38 13C3-PFHxS | $401.9>79.9$ | 2.78 e 4 | 2.78 e 4 | 0.120 | 1.000 | 3.56 | 3.49 | 12.5 | 104 | 100.0 |
| 9 | 39 13C8-PFOA | $421.3>376$ | 1.45 e 5 | 1.45 e 5 | 0.120 | 1.000 | 3.65 | 3.62 | 12.5 | 104 | 100.0 |
| 10 | 40 13C9-PFNA | $472.2>426.9$ | 1.46 e 5 | 1.46 e 5 | 0.120 | 1.000 | 3.83 | 3.79 | 12.5 | 104 | 100.0 |
| 11 | 41 13C4-PFOS | $503>79.9$ | 2.27 e 4 | $2.27 e 4$ | 0.120 | 1.000 | 3.89 | 3.85 | 12.5 | 104 | 100.0 |
| 12 | 42 13C6-PFDA | $519.1>473.7$ | 1.31 e 5 | 1.31 e 5 | 0.120 | 1.000 | 4.01 | 3.96 | 12.5 | 104 | 100.0 |
| 13 | 43 13C7-PFUnA | $570.1>524.8$ | 9.32 e 4 | 9.32 e 4 | 0.120 | 1.000 | 4.17 | 4.12 | 12.5 | 104 | 100.0 |
| 14 | 44 Total PFBS | $299>79.7$ | 4.68 e 5 | 8.52 e 3 | 0.120 |  | 2.96 |  | 687 | 3040 |  |
| 15 | 45 Total PFHxS | $398.9>79.6$ | 3.46 e 2 | 1.23 e 4 | 0.120 |  | 3.52 |  | 0.351 | 0.375 |  |
| 16 | 46 Total PFOA | $413>368.7$ | 1.97 e 3 | 1.53 e 5 | 0.120 |  | 3.65 |  | 0.000 |  |  |
| 17 | 47 Total PFOS | $499>79.9$ | 1.99 e 2 | 2.41 e 4 | 0.120 |  | 3.89 |  | 0.104 | 0.285 |  |
| 18 | 48 Total N-Me-FOSAA | $570.1>419$ | 0.00 e 0 | 2.12 e 4 | 0.120 |  | 4.03 |  | 0.000 |  |  |
| 19 | 49 Total N-EtFOSAA | $584.2>419$ | 0.00 e 0 | 1.99 e 4 | 0.120 |  | 4.17 |  | 0.000 |  |  |

## Quantify Totals Report MassLynx MassLynx V4.1 SCN945 SCN960

Dataset:
U:IQ4.PRO\results1170727M11170727M1-84.qld
Last Altered: Thursday, August 03, 2017 14:10:02 Pacific Daylight Time Printed: Thursday, August 03, 2017 14:10:14 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

 Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51Name: 170727M1_84, Date: 28-Jul-2017, Time: 02:31:03, ID: 1700871-11 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

## Total PFBS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 3 PFBS | $299>79.7$ | 2.91 | 468269.938 | 8515.811 | 687.354 | bb | 3036.8 |

## Total PFHxS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| 1 | 6 PFHxS | $398.9>79.6$ | 3.49 | 346.089 | 12321.963 | 0.351 | MM | 0.4 |

## Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | 7 PFOA | $413>368.7$ | 3.63 | 1974.853 | 152978.219 | 0.161 | bbl |

## Total PFOS

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 11 PFOS | 499 > 79.9 | 3.84 | 199.481 | 24069.828 | 0.104 | MM | 0.3 |
| Total N-Me-FOSAA |  |  |  |  |  |  |  |  |
|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| 1 | 13 N-MeFOSAA | $570.1>419$ |  |  | 21194.148 |  | MM-I |  |

## Total N-EtFOSAA

|  | \# Name | Trace | RT | Area | IS Area | Response |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |

## Quantify Sample Report

Printed: $\quad$ Thursday, August 03, 2017 14:10:14 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Name: 170727M1_84, Date: 28-Jul-2017, Time: 02:31:03, ID: 1700871-11 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713




13C3-PFBS



13C2-PFHxA


## PFHpA



13C4-PFHpA


Total PFHxS



## Name: 170727M1_84, Date: 28-Jul-2017, Time: 02:31:03, ID: 1700871-11 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

## Total PFOA




13C2-PFOA

|  |  | F20:MRM of 1 channel,ES $414.9>369.7$ |
| :---: | :---: | :---: |
| 100 | 13C2-PFOA | A $\begin{aligned} & 414.9>369.7 \\ & 2.514 e+006\end{aligned}$ |
|  | $\begin{gathered} 3.62 \\ 1.53 \mathrm{e} 5 \\ 2510257 \\ \mathrm{bb} \end{gathered}$ |  |
| \%- |  |  |

## Total PFOS




13C8-PFOS


## PFDA



13C2-PFDA


## Dataset:

U:IQ4.PROIresults1170727M11170727M1-84.qld
Last Altered: Thursday, August 03, 2017 14:10:02 Pacific Daylight Time
Printed: Thursday, August 03, 2017 14:10:14 Pacific Daylight Time

Name: 170727M1_84, Date: 28-Jul-2017, Time: 02:31:03, ID: 1700871-11 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

## PFUnA



13C2-PFUnA
F44:MRM of 1 channel,ES $565>519.8$ $1.133 \mathrm{e}+006$


## N-MeFOSAA


d3-N-MeFOSAA
F47:MRM of 1 channel,ESF47:MRM of 1 channel,ES$573.3>419$
$3.070 \mathrm{e}+005$


N-EtFOSAA

d5-N-EtFOSAA


PFDoA


## Dataset:

U:IQ4.PROTresults1170727M11170727M1-84.qld
Last Altered: Thursday, August 03, 2017 14:10:02 Pacific Daylight Time
Printed: $\quad$ Thursday, August 03, 2017 14:10:14 Pacific Daylight Time

Name: 170727M1_84, Date: 28-Jul-2017, Time: 02:31:03, ID: 1700871-11 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

## 13C5-PFHxA



13C4-PFOS
13C4-PFOS F31.MRM of 1 channe ES


13C3-PFHxS


13C6-PFDA


13C8-PFOA


13C9-PFNA


13C7-PFUnA


## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945

## Dataset: U:\Q4.PRO|results|170731M11170731M1-32.qld <br> Last Altered: Wednesday, August 02, 2017 16:23:39 Pacific Daylight Time <br> Printed: Wednesday, August 02, 2017 16:24:22 Pacific Daylight Time

## Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_32, Date: 31-Jul-2017, Time: 17:52:08, ID: 1700871-11 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 18 PFTrDA | $662.9>618.9$ |  | 1.74 e 3 | 0.1204 |  | 4.50 |  |  |  |  |
| 2 | 19 PFTeDA | $712.9>668.8$ |  | 5.54 e 3 | 0.1204 |  | 4.68 |  |  |  |  |
| 3 | 35 13C2-PFTeDA | $714.8>669.6$ | 5.54 e 3 | 2.17 e 4 | 0.1204 | 0.762 | 4.68 | 4.65 | 3.20 | 34.8 | 33.6 |
| 4 | 43 13C7-PFUnA | $570.1>524.8$ | 2.17 e 4 | 2.17 e 4 | 0.1204 | 1.000 | 4.17 | 4.14 | 12.5 | 104 | 100.0 |

Dataset:
U:\Q4.PRO\results\170731M1\170731M1-32.qld
Last Altered: Wednesday, August 02, 2017 16:23:39 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:24:22 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_32, Date: 31-Jul-2017, Time: 17:52:08, ID: 1700871-11 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

## PFTeDA



F58:MRM of 4 channels,ES 16-GW-16_MW04-20170713 1700871-11 16-GW-16_MW04-20170713 0.12043712.9 > 369


## 13C2-PFTeDA

170731M1_32 Smooth(Mn,1x2) F59:MRM of 2 channels,ES-


Reviewed: WJL 8/4/2017

## PFTrDA



170731M1_32 Smooth(Mn,1x2)
16-GW-16 MW04-20170713 1700871-11 16-GW-16 MW04-20170713 0.12043662 9>319


13C2-PFTeDA
170731M1_32 Smooth(Mn,1x2) F59:MRM of 2 channels,ES$714.8>669.6$ $9.492 \mathrm{e}+004$


## Quantify Sample Report

MassLynx MassLynx V4.1 SCN 945

```
Dataset: U:\Q4.PRO\results\170731M1\170731M1-32.qld
Last Altered: Wednesday, August 02, 2017 16:23:39 Pacific Daylight Time
Printed: Wednesday, August 02, 2017 16:24:22 Pacific Daylight Time
```


## Name: 170731M1_32, Date: 31-Jul-2017, Time: 17:52:08, ID: 1700871-11 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

## 13C7-PFUnA

170731M1_32 Smooth(Mn,1x2) F46:MRM of 1 channel,ES-


## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945

## Dataset: <br> U:IQ4.PRO|results1170803M21170803M2-11.qld <br> Last Altered: Friday, August 04, 2017 10:38:18 Pacific Daylight Time <br> Printed: Friday, August 04, 2017 10:40:02 Pacific Daylight Time

Method: U:|Q4.PRO\MethDB|PFAS_FULL_7-27-17.mdb 28 Jul 2017 08:06:09 Calibration: U:|Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08

Name: 170803M2_11, Date: 03-Aug-2017, Time: 17:49:34, ID: 1700871-11@5X 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 PFBS | $299>79.7$ | 2.12e4 | 3.61e2 | 0.1204 |  | 2.96 | 2.91 | 736 | 3240 |  |
| 2 | 4 PFHxA | $313.2>268.9$ | 1.35 e 5 | 1.58 e 3 | 0.1204 |  | 3.19 | 3.16 | 426 | 2550 |  |
| 3 | $3013 C 3-P F B S$ | $302>98.8$ | 3.61 e 2 | 5.33 e 3 | 0.1204 | 0.034 | 2.96 | 2.92 | 0.338 | 82.3 | 79.3 |
| 4 | 31 13C2-PFHxA | $315>269.8$ | 1.58 e 3 | 5.33 e 3 | 0.1204 | 0.334 | 3.19 | 3.15 | 1.48 | 36.8 | 88.7 |
| 5 | 52 13C5-PFHxA | $318>272.9$ | 5.33 e 3 | 5.33 e 3 | 0.1204 | 1.000 | 3.19 | 3.16 | 5.00 | 41.5 | 100.0 |
| 6 | 59 Total PFBS | $299>79.7$ | 2.15 e 4 | 3.61 e 2 | 0.1204 |  | 2.96 |  | 744 | 3280 |  |


| Dataset: | U:\Q4.PRO\results\170803M2\170803M2-11.qld |
| :--- | :--- |
| Last Altered: | Friday, August 04, 2017 10:38:18 Pacific Daylight Time |
| Printed: | Friday, August 04, 2017 10:40:02 Pacific Daylight Time |

## Method: U:\Q4.PRO\MethDB\PFAS_FULL_7-27-17.mdb 28 Jul 2017 08:06:09

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08

Name: 170803M2_11, Date: 03-Aug-2017, Time: 17:49:34, ID: 1700871-11@5X 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

## Total PFBS




13C3-PFBS


Reviewed: WJL 8/4/2017

PFHxA


13C2-PFHxA



F14:MRM of 2 channels,ES-
$363>169$


13C4-PFHpA


## Total PFHxS



1802-PFHxS

Dataset:
U:\Q4.PRO\results\170803M2\170803M2-11.qld
Last Altered: Friday, August 04, 2017 10:38:18 Pacific Daylight Time Printed: Friday, August 04, 2017 10:40:02 Pacific Daylight Time

Name: 170803M2_11, Date: 03-Aug-2017, Time: 17:49:34, ID: 1700871-11@5X 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713


F19:MRM of 2 channels,ES


13C2-PFOA




13C5-PFNA


Total PFOS
F30:MRM of 2 channels,ES-
$499>79.9$
$3.273 \mathrm{e}+002$

13C8-PFOS


Dataset:
U:\Q4.PRO\results\170803M2\170803M2-11.qld
Last Altered: Friday, August 04, 2017 10:38:18 Pacific Daylight Time
Printed: $\quad$ Friday, August 04, 2017 10:40:02 Pacific Daylight Time

Name: 170803M2_11, Date: 03-Aug-2017, Time: 17:49:34, ID: 1700871-11@5X 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

## PFUnA



13C2-PFUnA


d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA


## Dataset: <br> U:\Q4.PRO\results\170803M2\170803M2-11.qld <br> Last Altered: Friday, August 04, 2017 10:38:18 Pacific Daylight Time Printed: Friday, August 04, 2017 10:40:02 Pacific Daylight Time

## Name: 170803M2_11, Date: 03-Aug-2017, Time: 17:49:34, ID: 1700871-11@5X 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

\section*{PFTeDA <br> F58:MRM of 4 channels,ES- | $712.9>668.8$ |
| ---: |
| $3.484 \mathrm{e}+003$ |}

F58:MRM of 4 channels,ES-




## PFTrDA



13C2-PFTeDA


13C5-PFHxA


13C8-PFOA



## Quantify Sample Report

|  |  |
| :--- | :--- |
| Dataset: | U:\Q4.PRO\results\170803M2\170803M2-11.qld |
| Last Altered: | Friday, August 04, 2017 10:38:18 Pacific Daylight Time |
| Printed: | Friday, August 04, 2017 10:40:02 Pacific Daylight Time |

Name: 170803M2_11, Date: 03-Aug-2017, Time: 17:49:34, ID: 1700871-11@5X 16-GW-16_MW04-20170713 0.12043, Description: 16-GW-16_MW04-20170713

## 13C4-PFOS




13C7-PFUnA


## CONTINUING CALIBRATION

Method: U:IQ4.PROIMethDBIPFAS L17 L14_7-27-17.mdb 28 Jul 2017 08:40:43 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_47, Date: 27-Jul-2017, Time: 19:53:28, ID: ST170727M1-10 PFC CS3 17G2709, Description: PFC CS3 17G2709


Work Order 1700871

Name: 170727M1_47, Date: 27-Jul-2017, Time: 19:53:28, ID: ST170727M1-10 PFC CS3 17G2709, Description: PFC CS3 17G2709

| 9x | \# Name | MeTrace | Area | IS Area | Wt./Vol. | RRF | PrediRT | RT | Resp | Conc. | \%Rec | $50-150$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32 | $32 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 1.15 e4 | 6.57 e 4 | 1.0000 | 0.013 | 4.12 | 4.05 | 2.18 | 172 | 105.6 |  |
| 33.4 | 33 13C2-PFUnA | $565>519.8$ | 5.72e4 | 6.57 e 4 | 1.0000 | 0.928 | 4.17 | 4.12 | 10.9 | 11.7 | 93.8 |  |
| 34 | 34 13C2-PFDOA | $615>569.7$ | 3.82 e 3 | 6.57e4 | 1.0000 | 0.071 | 4.34 | 4.28 | 0.728 |  | 81.9 |  |
| 35 - | 35 13C2-PFTeDA | $714.8>669.6$ | 5.26 e 3 | 6.57e4 | 1.0000 | 0.273 | 4.68 | 4.62 | 1.00 |  | 29.3 | $\downarrow$ |
| 36 trlis | 36 13C4-PFBA | $217>171.8$ | 2.17 e 4 | 2.17e4 | 1.0000 | 1.000 | 1.32 | 1.33 | 12.5 | 12.5 | 100.0 |  |
| $37 \times 4$ | 37 13C5-PFHxA | $318>272.9$ | 7.14 e 4 | 7.14 e 4 | 1.0000 | 1.000 | 3.19 | 3.14 | 5.00 | 5.00 | 100.0 |  |
| 38 - - | $3813 \mathrm{C} 3-\mathrm{PFHxS}$ | $401.9>79.9$ | 1.02 e 4 | 1.02 e 4 | 1.0000 | 1.000 | 3.56 | 3.48 | 12.5 | 12.5 | 100.0 |  |
| 39 - ${ }^{\text {a }}$ | 39 13C8-PFOA | $421.3>376$ | 5.99e4 | 5.99 e 4 | 1.0000 | 1.000 | 3.65 | 3.61 | 12.5 | 12.5 | 100.0 |  |
|  | 40 13C9-PFNA | $472.2>426.9$ | 7.01 e 4 | 7.01e4 | 1.0000 | 1.000 | 3.83 | 3.79 | 12.5 | 12.5 | 100.0 |  |
| $41 \times 2$ | 41 13C4-PFOS | $503>79.9$ | 9.56 e 3 | 9.56 e 3 | 1.0000 | 1.000 | 3.89 | 3.84 | 12.5 | 12.5 | 100.0 |  |
| 42 , | 42 13C6-PFDA | $519.1>473.7$ | 6.82e4 | 6.82 e 4 | 1.0000 | 1.000 | 4.01 | 3.96 | 12.5 | 12.5 | 100.0 |  |
| $43-4$ | 43 13C7-PFUnA | $570.1>524.8$ | 6.57 e 4 | 6.57 e 4 | 1.0000 | 1.000 | 4.17 | 4.12 | 12.5 | 12.5 | 100.0 |  |

Dataset: U:IQ4.PROIresults1170727M11170727M1-47.qld
Last Altered: Friday, July 28, 2017 13:22:33 Pacific Daylight Time
Printed: $\quad$ Friday, July 28, 2017 13:23:21 Pacific Daylight Time

Method: U:IQ4.PRO|MethDBIPFAS_L17_L14_7-27-17.mdb 28 Jul 2017 08:40:43
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_47, Date: 27-Jul-2017, Time: 19:53:28, ID: ST170727M1-10 PFC CS3 17G2709, Description: PFC CS3 17G2709
Total PFBS

| sm | \# Name | Trace | RT | Area | IS Area | Response | Prima | Conc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4 | 3 PFBS | $299>79.7$ | 2.89 | 8109.874 | 5518.140 | 18.371 | bb | 9.7 |

## Total PFHxS



Total PFOA

|  | \# Name | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.7xamy | 46 Total PFOA | $413>368.7$ | 3.90 | 222.991 | 61805.418 | 0.045 | bbl |  |
| 2 | 7 PFOA | $413>368.7$ | 3.62 | 48842.699 | 61805.418 | 9.878 | bb | 9.9 |
| 3.4 | 46 Total PFOA | $413>368.7$ | 3.39 | 124.238 | 61805.418 | 0.025 | bbl |  |

## Total PFOS

|  | \# Name | (ace mmay |  | Area | Response Primary Flags |  |  | Conc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - 11 PFOS | $499>79.9$ | 3.84 | 7772.019 | 9877.245 | 9.836 | bb | 9.2 |

## Total N-Me-FOSAA

| Name | Sa, | Trace | RT | Area | IS Area | Response | Primary Flags | Conc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. $13 \mathrm{~N}-\mathrm{MeFOSAA}$ |  | $570.1>419$ | 3.98 | 13896.965 | 11144.938 | 202.626 | bb | 10.2 |

Total N-EtFOSAA


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 07:39:25 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 07:39:51 Pacific Daylight Time |

Method: U:IQ4.PROIMethDBIPFAS_L17_L14_7-27-17.mdb 28 Jul 2017 08:40:43 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Compound name: PFBA

| We Name | ID. | Acq.Date | Acq. Time |
| :---: | :---: | :---: | :---: |
| 1. 170727M1_31 | IPA | 27-Jul-17 | 16:15:58 |
| 2 , 170727M1_32 | ST170727M1-9 PFC CS3 17G2709 | 27-Jul-17 | 16:26:39 |
| 3 , 170727M1_33 | IPA | 27-Jul-17 | 16:37:56 |
| 4 170727M1_34 | 1700845-01@10X MW-29S-20170707 0.12034 | 27-Jul-17 | 17:33:45 |
| 5 , | 1700845-03@40X MW-27S-20170707 0.11824 | 27-Jul-17 | 17:44:30 |
|  | B7G0033-MS1@40X Matrix Spike 0.12283 | 27-Jul-17 | 17:55:16 |
| $7.4 \times 4$ 170727M1_37 | B7G0033-MSD1@40X Matrix Spike Dup 0.124 | 27-Jul-17 | 18:05:54 |
| 8 - ${ }^{\text {a }}$, 170727M1_38 | 1700732-04RE1@5X MW PFC 030.11929 | 27-Jul-17 | 18:16:32 |
| $9-\quad 170727 \mathrm{M} 1 \_39$ | 1700847-01RE1 DPH-MW10-17 0.12163 | 27-Jul-17 | 18:27:11 |
| $10.170727 \mathrm{M} 1 \_40$ | 1700847-02RE1 DPH-MW9-17 0.11474 | 27-Jul-17 | 18:38:43 |
| 11. | 1700847-03RE1 DPH-MW2D 0.11785 | 27-Jul-17 | 18:49:29 |
| 12 . | 1700848-01RE1 DPH-MW7-17 0.11765 | 27-Jul-17 | 19:00:08 |
| $13 . \mathrm{L}$ 170727M1_43 | 1700848-02RE1 DPH-IRELAND WELL 0.11439 | 27-Jul-17 | 19:10:46 |
| 14.4 atem $170727 \mathrm{M} 1 \_44$ | 1700848-03RE1 DPH-\#1 PW 0.11705 | 27-Jul-17 | 19:21:24 |
| 15 . | 1700848-04RE1 DPH-MW1-17 0.10364 | 27-Jul-17 | 19:32:11 |
|  | IPA | 27-Jul-17 | 19:42:49 |
| 17. | ST170727M1-10 PFC CS3 17G2709 | 27-Jul-17 | 19:53:28 |
| 18 \% | IPA | 27-Jul-17 | 20:04:14 |

U:\Q4.PRO\results\170727M1\170727M1-47.qld
Last Altered: Friday, July 28, 2017 13:22:33 Pacific Daylight Time
Printed: Friday, July 28, 2017 13:23:21 Pacific Daylight Time

Method: U:IQ4.PROIMethDBIPFAS L17 L14 7-27-17.mdb 28 Jul 2017 08:40:43

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_47, Date: 27-Jul-2017, Time: 19:53:28, ID: ST170727M1-10 PFC CS3 17G2709, Description: PFC CS3 17G2709


## 13C3-PFBA



PFPeA


13C3-PFPeA


## Total PFBS



13C3-PFBS


## PFHxA



13C2-PFHxA


[^0]
## Name: 170727M1_47, Date: 27-Jul-2017, Time: 19:53:28, ID: ST170727M1-10 PFC CS3 17G2709, Description: PFC CS3 17G2709

## PFHpA




13C4-PFHpA




1802-PFHxS




## 13C2-PFOA




13C2-PFOA
F20:MRM of 1 channel,ES-

Printed: $\quad$ Friday, July 28, 2017 13:23:21 Pacific Daylight Time

## Name: 170727M1_47, Date: 27-Jul-2017, Time: 19:53:28, ID: ST170727M1-10 PFC CS3 17G2709, Description: PFC CS3 17G2709







13C8-PFOSA


## Total PFOS



PFDA

13C8-PFOS



13C2-PFDA


Last Altered: Friday, July 28, 2017 13:22:33 Pacific Daylight Time
Printed:
Friday, July 28, 2017 13:23:21 Pacific Daylight Time

Name: 170727M1_47, Date: 27-Jul-2017, Time: 19:53:28, ID: ST170727M1-10 PFC CS3 17G2709, Description: PFC CS3 17 G2709

d3-N-MeFOSAA
F47:MRM of 1 channel,ES$573.3>419$





13C2-PFUnA





13C2-PFUnA
F44:MRM of 1 channel,ES-


Dataset: U:\Q4.PRO\results\170727M1\170727M1-47.qld
Last Altered: Friday, July 28, 2017 13:22:33 Pacific Daylight Time
Printed: Friday, July 28, 2017 13:23:21 Pacific Daylight Time

Name: 170727M1_47, Date: 27-Jul-2017, Time: 19:53:28, ID: ST170727M1-10 PFC CS3 17G2709, Description: PFC CS3 17G2709



13C2-PFDoA


## PFTrDA



13C2-PFDoA


## PFTeDA



## 13C2-PFTeDA



13C4-PFBA


## 13C5-PFHxA

F10:MRM of 1 channel,ES-


Dataset: U:IQ4.PROIresults1170727M11170727M1-47.qld
Last Altered: Friday, July 28, 2017 13:22:33 Pacific Daylight Time
Printed: $\quad$ Friday, July 28, 2017 13:23:21 Pacific Daylight Time

Name: 170727M1_47, Date: 27-Jul-2017, Time: 19:53:28, ID: ST170727M1-10 PFC CS3 17G2709, Description: PFC CS3 17G2709





13C4-PFOS
F31:MRM of 1 channel,ES
$503>79.9$


Name: 170727M1_47, Date: 27-Jul-2017, Time: 19:53:28, ID: ST170727M1-10 PFC CS3 17G2709, Description: PFC CS3 17G2709


Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:|Q4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_66, Date: 27-Jul-2017, Time: 23:16:34, ID: ST170727M1-11 PFC CS-1 17G2705, Description: PFC CS-1 17G2705


Vista Analytical Laboratory
Dataset: U:\Q4.PRO\results\170727M1\170727M1-66.qld
Last Altered: Tuesday, August 01, 2017 11:56:07 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 11:56:29 Pacific Daylight Time

Name: 170727M1_66, Date: 27-Jul-2017, Time: 23:16:34, ID: ST170727M1-11 PFC CS-1 17G2705, Description: PFC CS-1 17G2705

|  | 7 Name | Wreame Trace | Area | IS Area | Wt/ Nol . | RRF | Predint | RT | y Axis Resp. | Conc: | 98\%ec |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $33 \mathrm{XT}=$ | 33 13C2-PFUnA | $565>519.8$ | 5.30 e 4 | 6.26 e4 | 1.000 | 0.928 | 4.17 | 4.12 | 10.6 | 11.4 | 91.3 | SD-150 |
| $34$ | 34 13C2-PFDoA | $615>569.7$ | 3.94 e 3 | 6.26 e 4 | 1.000 | 0.071 | 4.34 | 4.28 | 0.787 | 11.1 | 88.6 | I |
| 35 | $3513 \mathrm{C} 2-\mathrm{PFTEDA}$ | $714.8>669.6$ | 8.02e3 | 6.26e4 | 1.000 | 0.273 | 4.68 | 4.62 | 1.60 | 5.87 | (4) 46.9 | $\checkmark$ |
| $36=10$ | 36 13C4-PFBA | $217>171.8$ | 2.31 e 4 | 2.31 e 4 | 1.000 | 1.000 | 1.32 | 1.34 | 12.5 | 12.5 | 100.0 |  |
| 37. | 37 13C5-PFHxA | $318>272.9$ | 7.04 e 4 | 7.04 e 4 | 1.000 | 1.000 | 3.19 | 3.14 | 5.00 | 5.00 | 100.0 |  |
| 38 | 38 13C3-PFHxS | $401.9>79.9$ | 9.64 e 3 | 9.64 e 3 | 1.000 | 1.000 | 3.56 | 3.48 | 12.5 | 12.5 | 100.0 |  |
| $39$ | 39 13C8-PFOA | $421.3>376$ | 5.95 e 4 | 5.95 e 4 | 1.000 | 1.000 | 3.65 | 3.61 | 12.5 | 12.5 | 100.0 |  |
| $49$ | 40 13C9-PFNA | $472.2>426.9$ | 6.70 e4 | 6.70 e4 | 1.000 | 1.000 | 3.83 | 3.79 | 12.5 | 12.5 | 100.0 |  |
|  | 41 13C4-PFOS | $503>79.9$ | 1.01 e 4 | 1.01 e 4 | 1.000 | 1.000 | 3.89 | 3.84 | 12.5 | 12.5 | 100.0 |  |
| 42 | 42 13C6-PFDA | $519.1>473.7$ | 6.46 e 4 | 6.46 e 4 | 1.000 | 1.000 | 4.01 | 3.96 | 12.5 | 12.5 | 100.0 |  |
| $43-2$ | 43 13C7-PFUnA | $570.1>524.8$ | $6.26 e 4$ | 6.26 e 4 | 1.000 | 1.000 | 4.17 | 4.12 | 12.5 | 12.5 | 100.0 |  |


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 12:30:23 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 12:32:43 Pacific Daylight Time |

Method: U:IQ4.PROIMethDBIPFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Compound name: PFBA

| Name |  | Acq. Date | Acq. Time |
| :---: | :---: | :---: | :---: |
| - 170727M1_47 | ST170727M1-10 PFC CS3 17G2709 | 27-Jul-17 | 19:53:28 |
| - 170727M1_48 | IPA | 27-Jul-17 | 20:04:14 |
| 3. | 1700848-05RE1 DPH-MW2-17 0.12259 | 27-Jul-17 | 20:14:52 |
| 4 . 4 dide727M1_50 | 1700848-06RE1 DPH-MW8-17 0.12027 | 27-Jul-17 | 20:25:31 |
|  | 1700848-07RE1 DPH-MW5-17 0.11998 | 27-Jul-17 | 20:36:09 |
| 6 6_ 170727M1_52 | 1700848-08RE1 DPH-MW4-17 0.11759 | 27-Jul-17 | 20:46:48 |
| : 170727M1_53 | IPA | 27-Jul-17 | 20:57:36 |
| $8.3170727 \mathrm{M1}$ _54 | B7G0067-BLK1 Method Blank 0.125 | 27-Jul-17 | 21:08:21 |
| 9 9 ${ }^{\text {a }}$, 170727M1_55 | IPA | 27-Jul-17 | 21:19:00 |
| 10 . ${ }^{\text {a }}$ 170727M1_56 | B7G0067-BS1 OPR 0.125 | 27-Jul-17 | 21:29:46 |
| 11.1 | 1700855-01 TF5-EB-02 0.27357 | 27-Jul-17 | 21:40:25 |
| 12 - 170727M1_58 | 1700855-02 TF5-MW-987 0.27423 | 27-Jul-17 | 21:51:11 |
| 13 [ | 1700855-03 TF5-MW-987D 0.27164 | 27-Jul-17 | 22:01:49 |
| 14.5 | B7G0067-MS1 Matrix Spike 0.27298 | 27-Jul-17 | 22:12:27 |
| 15 - 170727M1_61 | B7G0067-MSD1 Matrix Spike Dup 0.2776 | 27-Jul-17 | 22:23:06 |
| 16.3 170727M1_62 | 1700855-04 TF5-MW-987-D 0.26865 | 27-Jul-17 | 22:33:52 |
| 17. | 1700855-05 TF5-MW-991 0.2726 | 27-Jul-17 | 22:44:39 |
| 18 - ${ }^{\text {a }}$ - 170727M1_64 | 1700855-06 TF5-MW-991D 0.27278 | 27-Jul-17 | 22:55:17 |
| 19 : ${ }^{\text {W }}$ 170727M1_65 | IPA | 27-Jul-17 | 23:05:56 |
| 20 , | ST170727M1-11 PFC CS-1 17G2705 | 27-Jul-17 | 23:16:34 |
| 21. | IPA | 27-Jul-17 | 23:27:21 |
| 22.4170727 M 1 _68 | 1700855-07 TF5-MW-993 0.26881 | 27-Jul-17 | 23:39:43 |
| 23.1 170727M1_69 | 1700855-08 TF5-MW-993D 0.2612 | 27-Jul-17 | 23:50:22 |
| 24 - 170727M1_70 | 1700855-09 TF5-MW-994 0.25188 | 28-Jul-17 | 00:01:08 |
| 25. | 1700871-01 EB03-20170712 0.12146 | 28-Jul-17 | 00:11:55 |
| 26 [ | 1700871-02 5-GW-05_DGMW41B-20170712 ... | 28-Jul-17 | 00:22:44 |
| 27. | 1700871-03 18-GW-18BGM03E-20170712 0.... | 28-Jul-17 | 00:33:31 |
| 28. | 1700871-04 24-GW-24IN03-20170712 0.11741 | 28-Jul-17 | 00:44:15 |
| 29. | 1700871-05 DUP02-20170712 0.11807 | 28-Jul-17 | 00:54:53 |
| 30 - ${ }^{3}$ 170727M1_76 | 1700871-06 24-GW-24EX13A-20170712 0.11... | 28-Jul-17 | 01:05:31 |
| 31 - 170727M1_77 | 1700871-07 24-GW-24MW15D-20170712 0.1... | 28-Jul-17 | 01:16:10 |


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 12:30:23 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 12:32:43 Pacific Daylight Time |

## Compound name: PFBA

|  | Name | ID | Acq.Date | Acq. Time |
| :---: | :---: | :---: | :---: | :---: |
| 32. | 170727M1_78 | IPA | 28-Jul-17 | 01:26:56 |
| 33.41 | 170727M1_79 | ST170727M1-12 PFC CS3 17G2709 | 28-Jul-17 | 01:37:35 |
| 34.41 | 170727M1_80 | IPA | 28-Jul-17 | 01:48:13 |
| 35. | 170727M1_81 | 1700871-08 16-GW-16_MW28-20170712 0.1... | 28-Jul-17 | 01:58:51 |
| 36. | 170727M1_82 | 1700871-09 16-GW-16_MW19-20170712 0.1... | 28-Jul-17 | 02:09:38 |
| $37$ | 170727M1_83 | 1700871-10 EB04-20170713 0.11646 | 28-Jul-17 | 02:20:24 |
| 38. | 170727M1_84 | 1700871-11 16-GW-16_MW04-20170713 0.1... | 28-Jul-17 | 02:31:03 |
| 39 , 1 | 170727M1_85 | IPA | 28-Jul-17 | 02:41:41 |
| 40. | 170727M1_86 | B7G0108-BS1 OPR 0.125 | 28-Jul-17 | 02:52:19 |
| 41. | 170727M1_87 | IPA | 28-Jul-17 | 03:02:58 |
| $42$ | 170727M1_88 | B7G0108-BLK1 Method Blank 0.125 | 28-Jul-17 | 03:13:36 |
| $43$ | 170727M1_89 | 1700856-01RE1 INFLUENT-20170710 0.121 | 28-Jul-17 | 03:24:15 |
| $44{ }^{4}$ | 170727M1_90 | 1700856-02RE1 DUP05-20170710 0.11647 | 28-Jul-17 | 03:34:53 |
| 45 \% 1 | 170727M1_91 | 1700856-03RE1 MID-POINT-20170710 0.11731 | 28-Jul-17 | 03:45:40 |
| $46=1$ | 170727M1_92 | 1700856-04RE1 EFFLUENT-20170710 0.12084 | 28-Jul-17 | 03:56:26 |
| $47$ | 170727M1_93 | B7G0108-MS1 Matrix Spike 0.12162 | 28-Jul-17 | 04:07:38 |
| $48$ | 170727M1_94 | B7G0108-MSD1 Matrix Spike Dup 0.11849 | 28-Jul-17 | 04:18:57 |
| 49 - ${ }^{\text {a }}$ | 170727M1_95 | 1700856-06RE1 ERB-01-20170711 0.12043 | 28-Jul-17 | 04:29:35 |
| $50$ | 170727M1_96 | IPA | 28-Jul-17 | 04:40:21 |
|  | 170727M1_97 | ST170727M1-13 PFC CS3 17G2709 | 28-Jul-17 | 04:51:00 |
| 52 | 170727M1_98 | IPA | 28-Jul-17 | 05:01:38 |

LC Calibration Standards Review Checklist $\qquad$


Full Mass Cal. Date: $6 / 2 / 17$
Run Log Present: $\square$
\# of Samples per Sequence Checked:
Reviewed By: $\frac{\operatorname{LoM} 8 / 1 / 17}{\text { Initials/Date }}$

ID: LR - LCSRC
Work Order 1700871

Dataset:
U:\Q4.PRO\results\170727M1\170727M1-66.qld
Last Altered: Tuesday, August 01, 2017 11:58:09 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 11:58:14 Pacific Daylight Time

Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21
Calibration: U:|Q4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_66, Date: 27-Jul-2017, Time: 23:16:34, ID: ST170727M1-11 PFC CS-1 17G2705, Description: PFC CS-1 17G2705


Dataset: U:\Q4.PRO\results\170727M1\170727M1-66.qld
Last Altered: Tuesday, August 01, 2017 11:58:09 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 11:58:14 Pacific Daylight Time

Name: 170727M1_66, Date: 27-Jul-2017, Time: 23:16:34, ID: ST170727M1-11 PFC CS-1 17G2705, Description: PFC CS-1 17G2705

## PFHpA




13C4-PFHpA


## Total PFHxS




1802-PFHxS


## Total PFOA




13C2-PFOA


PFHpS


1802-PFHxS


Dataset: U:\Q4.PRO\results\170727M1\170727M1-66.qld
Last Altered: Tuesday, August 01, 2017 11:58:09 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 11:58:14 Pacific Daylight Time

Name: 170727M1_66, Date: 27-Jul-2017, Time: 23:16:34, ID: ST170727M1-11 PFC CS-1 17G2705, Description: PFC CS-1 17G2705


Dataset:
U:IQ4.PRO\results\170727M1\170727M1-66.qld
Last Altered: Tuesday, August 01, 2017 11:58:09 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 11:58:14 Pacific Daylight Time

Name: 170727M1_66, Date: 27-Jul-2017, Time: 23:16:34, ID: ST170727M1-11 PFC CS-1 17G2705, Description: PFC CS-1 17G2705


Dataset:
U:IQ4.PROTresults1170727M11170727M1-66.qld
Last Altered: Tuesday, August 01, 2017 11:58:09 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 11:58:14 Pacific Daylight Time

Name: 170727M1_66, Date: 27-Jul-2017, Time: 23:16:34, ID: ST170727M1-11 PFC CS-1 17G2705, Description: PFC CS-1 17G2705


F58:MRM of 4 channels,ES $712.9>369$
 13C2-PFTeDA


13C8-PFOA


## 13C4-PFBA



## 13C9-PFNA



13C3-PFHxS


13C4-PFOS


Dataset: U:\Q4.PRO\results\170727M1\170727M1-66.qld
Last Altered: Tuesday, August 01, 2017 11:58:09 Pacific Daylight Time Printed: Tuesday, August 01, 2017 11:58:14 Pacific Daylight Time

Name: 170727M1_66, Date: 27-Jul-2017, Time: 23:16:34, ID: ST170727M1-11 PFC CS-1 17G2705, Description: PFC CS-1 17G2705



F46:MRM of 1 channel,ES-


Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21
Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_79, Date: 28-Jul-2017, Time: 01:37:35, ID: ST170727M1-12 PFC CS3 17G2709, Description: PFC CS3 17G2709


Dataset: U:IQ4.PRO\results170727M11170727M1-79.qld
Last Altered: Tuesday, August 01, 2017 12:23:11 Pacific Daylight Time
Printed:
Tuesday, August 01, 2017 12:24:59 Pacific Daylight Time

Name: 170727M1_79, Date: 28-Jul-2017, Time: 01:37:35, ID: ST170727M1-12 PFC CS3 17G2709, Description: PFC CS3 17G2709 Gat of linrit criterne.

|  | \# Name | Trace | Area | IS Area | Wt. Vol . | WRPF | PrediRT | RT | Y Axis Resp. | Cone. | \% SRRec | 19-w |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 33 2t- | 33 13C2-PFUnA | $565>519.8$ | 5.13 e 4 | 6.13 e 4 | 1.000 | 0.928 | 4.17 | 4.13 | 10.5 | 11.3 | 90.1 |  |
|  | 34 13C2-PFDoA | $615>569.7$ | 3.66 e 3 | 6.13 e 4 | 1.000 | 0.071 | 4.34 | 4.29 | 0.746 | 10.5 | 83.9 |  |
| $35$ | 35 13C2-PFTeDA | $714.8>669.6$ | 3.88 e 3 | 6.13 e 4 | 1.000 | 0.273 | 4.68 | 4.63 | 0.791 | 2.90 | ( 23.2 | $\sqrt{v}$ |
| 36.4trututix | $3613 C 4-P F B A$ | $217>171.8$ | 2.45 e 4 | 2.45 e 4 | 1.000 | 1.000 | 1.32 | 1.34 | 12.5 | 12.5 | 100.0 |  |
| 376rsixym= | 37 13C5-PFHxA | $318>272.9$ | 7.38 e 4 | 7.38 e 4 | 1.000 | 1.000 | 3.19 | 3.14 | 5.00 | 5.00 | 100.0 |  |
| $188$ | 38 13C3-PFHxS | $401.9>79.9$ | 1.12 e 4 | 1.12 e 4 | 1.000 | 1.000 | 3.56 | 3.48 | 12.5 | 12.5 | 100.0 |  |
| $39$ | 39 13C8-PFOA | $421.3>376$ | 5.59 e 4 | 5.59 e 4 | 1.000 | 1.000 | 3.65 | 3.61 | 12.5 | 12.5 | 100.0 |  |
| ب) | 40 13C9-PFNA | $472.2>426.9$ | 6.33 e 4 | 6.33 e 4 | 1.000 | 1.000 | 3.83 | 3.80 | 12.5 | 12.5 | 100.0 |  |
| 41, mimat | 41 13C4-PFOS | $503>79.9$ | 1.05 e 4 | 1.05 e 4 | 1.000 | 1.000 | 3.89 | 3.84 | 12.5 | 12.5 | 100.0 |  |
| 42 | 42 13C6-PFDA | $519.1>473.7$ | 6.71 e4 | 6.71 e4 | 1.000 | 1.000 | 4.01 | 3.96 | 12.5 | 12.5 | 100.0 |  |
| 43 | 43 13C7-PFUnA | $570.1>524.8$ | 6.13 e 4 | 6.13 e 4 | 1.000 | 1.000 | 4.17 | 4.13 | 12.5 | 12.5 | 100.0 |  |


| Dataset： | Untitled |
| :--- | :--- |
| Last Altered： | Tuesday，August 01，2017 12：30：23 Pacific Daylight Time |
| Printed： | Tuesday，August 01，2017 12：32：43 Pacific Daylight Time |

Method：U：IQ4．PROMMethDBIPFAS＿L17＿L14＿7－27－17．mdb 30 Jul 2017 07：47：21 Calibration：U：IQ4．PROICurveDBIC18＿VAL－PFAS＿Q4＿7－27－17－L14＿L17．cdb 28 Jul 2017 08：49：51

## Compound name：PFBA

| She | T0 | Acq．Date | Acgitime |
| :---: | :---: | :---: | :---: |
|  | ST170727M1－10 PFC CS3 17G2709 | 27－Jul－17 | 19：53：28 |
|  | IPA | 27－Jul－17 | 20：04：14 |
|  | 1700848－05RE1 DPH－MW2－17 0.12259 | 27－Jul－17 | 20：14：52 |
| 236485 170727M1＿50 | 1700848－06RE1 DPH－MW8－17 0.12027 | 27－Jul－17 | 20：25：31 |
|  | 1700848－07RE1 DPH－MW5－17 0.11998 | 27－Jul－17 | 20：36：09 |
|  | 1700848－08RE1 DPH－MW4－17 0.11759 | 27－Jul－17 | 20：46：48 |
|  | IPA | 27－Jul－17 | 20：57：36 |
|  | B7G0067－BLK1 Method Blank 0.125 | 27－Jul－17 | 21：08：21 |
| －6\％${ }^{\text {a }}$ 170727M1＿55 | IPA | 27－Jul－17 | 21：19：00 |
|  | B7G0067－BS1 OPR 0.125 | 27－Jul－17 | 21：29：46 |
| ＊ | 1700855－01 TF5－EB－02 0.27357 | 27－Jul－17 | 21：40：25 |
| 43 ${ }^{\text {d }}$／170727M1＿58 | 1700855－02 TF5－MW－987 0.27423 | 27－Jul－17 | 21：51：11 |
| 4exad ${ }^{\text {Wh }}$ 170727M1＿59 | 1700855－03 TF5－MW－987D 0.27164 | 27－Jul－17 | 22：01：49 |
| 406䜌170727M1＿60 | B7G0067－MS1 Matrix Spike 0.27298 | 27－Jul－17 | 22：12：27 |
| 170727M1＿61 | B7G0067－MSD1 Matrix Spike Dup 0.2776 | 27－Jul－17 | 22：23：06 |
| 170727M1＿62 | 1700855－04 TF5－MW－987－D 0.26865 | 27－Jul－17 | 22：33：52 |
|  | 1700855－05 TF5－MW－9910．2726 | 27－Jul－17 | 22：44：39 |
|  | 1700855－06 TF5－MW－991D 0.27278 | 27－Jul－17 | 22：55：17 |
|  | IPA | 27－Jul－17 | 23：05：56 |
| 206ty $170727 \mathrm{M1} 166$ | ST170727M1－11 PFC CS－1 17G2705 | 27－Jul－17 | 23：16：34 |
|  | IPA | 27－Jul－17 | 23：27：21 |
| －9，${ }^{\text {d }}$ 170727M1＿68 | 1700855－07 TF5－MW－993 0.26881 | 27－Jul－17 | 23：39：43 |
| 170727M1＿69 | 1700855－08 TF5－MW－993D 0.2612 | 27－Jut－17 | 23：50：22 |
| 170727M1＿70 | 1700855－09 TF5－MW－994 0.25188 | 28－Jul－17 | 00：01：08 |
| 40 170727M1＿71 | 1700871－01 EB03－20170712 0.12146 | 28－Jul－17 | 00：11：55 |
| －59 170727M1＿72 | 1700871－02 5－GW－05＿DGMW41B－20170712 | 28－Jul－17 | 00：22：44 |
|  | 1700871－03 18－GW－18BGM03E－20170712 0．．． | 28－Jul－17 | 00：33：31 |
| 83a 緼170727M1＿74 | 1700871－04 24－GW－24IN03－20170712 0.11741 | 28－Jul－17 | 00：44：15 |
| 緌641 170727M1＿75 | 1700871－05 DUP02－20170712 0.11807 | 28－Jul－17 | 00：54：53 |
| 170727M1＿76 | 1700871－06 24－GW－24EX13A－20170712 0．11．．． | 28－Jul－17 | 01：05：31 |
|  | 1700871－07 24－GW－24MW15D－20170712 0．1．．． | 28－Jul－17 | 01：16：10 |

Untitled

| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 12:30:23 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 12:32:43 Pacific Daylight Time |

## Compound name: PFBA

|  | 10 | Acq.Date | Acg Time |
| :---: | :---: | :---: | :---: |
|  | IPA | 28-Jul-17 | 01:26:56 |
|  | ST170727M1-12 PFC CS3 17G2709 | 28-Jul-17 | 01:37:35 |
| 34 | IPA | 28-Jul-17 | 01:48:13 |
|  | 1700871-08 16-GW-16_MW28-20170712 0.1... | 28-Jul-17 | 01:58:51 |
|  | 1700871-09 16-GW-16_MW19-20170712 0.1... | 28-Jul-17 | 02:09:38 |
|  | 1700871-10 EB04-20170713 0.11646 | 28-Jul-17 | 02:20:24 |
| 38644 | 1700871-11 16-GW-16_MW04-20170713 0.1... | 28-Jul-17 | 02:31:03 |
| 845緌170727M1_85 | IPA | 28-Jul-17 | 02:41:41 |
|  | B7G0108-BS1 OPR 0.125 | 28-Jul-17 | 02:52:19 |
|  | IPA | 28-Jul-17 | 03:02:58 |
|  | B7G0108-BLK1 Method Blank 0.125 | 28-Jul-17 | 03:13:36 |
| 14xexay 170727M1_89 | 1700856-01RE1 INFLUENT-20170710 0.121 | 28-Jul-17 | 03:24:15 |
|  | 1700856-02RE1 DUP05-20170710 0.11647 | 28-Jul-17 | 03:34:53 |
|  | 1700856-03RE1 MID-POINT-20170710 0.11731 | 28-Jul-17 | 03:45:40 |
|  | 1700856-04RE1 EFFLUENT-20170710 0.12084 | 28-Jul-17 | 03:56:26 |
| 64 170727M1_93 | B7G0108-MS1 Matrix Spike 0.12162 | 28-Jul-17 | 04:07:38 |
| 4) ${ }^{\text {d }}$ 170727M1_94 | B7G0108-MSD1 Matrix Spike Dup 0.11849 | 28-Jul-17 | 04:18:57 |
| 4iswe 170727M1_95 | 1700856-06RE1 ERB-01-20170711 0.12043 | 28-Jul-17 | 04:29:35 |
| 43綥170727M1_96 | IPA | 28-Jul-17 | 04:40:21 |
|  | ST170727M1-13 PFC CS3 17G2709 | 28-Jul-17 | 04:51:00 |
| 52\% ${ }^{\text {a }}$ | IPA | 28-Jul-17 | 05:01:38 |


| Dataset: | U:IQ4.PROIresults1170727M1\170727M1-79.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 12:23:11 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 12:24:59 Pacific Daylight Time |

Method: U:|Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21
Calibration: U:|Q4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_79, Date: 28-Jul-2017, Time: 01:37:35, ID: ST170727M1-12 PFC CS3 17G2709, Description: PFC CS3 17G2709



PFPeA


13C3-PFPeA


Total PFBS



13C3-PFBS


PFHxA


13C2-PFHxA


Dataset:
U:IQ4.PRO|resultsl170727M11170727M1-79.qld
Last Altered: Tuesday, August 01, 2017 12:23:11 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 12:24:59 Pacific Daylight Time

Name: 170727M1_79, Date: 28-Jul-2017, Time: 01:37:35, ID: ST170727M1-12 PFC CS3 17G2709, Description: PFC CS3 17G2709


13C4-PFHpA




1802-PFHxS


Total PFOA



## PFHpS



1802-PFHxS


Dataset:
U:\Q4.PRO\results\170727M1\170727M1-79.qld
Last Altered: Tuesday, August 01, 2017 12:23:11 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 12:24:59 Pacific Daylight Time

Name: 170727M1_79, Date: 28-Jul-2017, Time: 01:37:35, ID: ST170727M1-12 PFC CS3 17G2709, Description: PFC CS3 17G2709


Dataset: U:IQ4.PRO|results170727M11170727M1-79.qld
Last Altered: Tuesday, August 01, 2017 12:23:11 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 12:24:59 Pacific Daylight Time

Name: 170727M1_79, Date: 28-Jul-2017, Time: 01:37:35, ID: ST170727M1-12 PFC CS3 17G2709, Description: PFC CS3 17G2709


| Dataset: | U:\Q4.PRO\results\170727M1\170727M1-79.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 12:23:11 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 12:24:59 Pacific Daylight Time |

Name: 170727M1_79, Date: 28-Jul-2017, Time: 01:37:35, ID: ST170727M1-12 PFC CS3 17G2709, Description: PFC CS3 17G2709
 13C2-PFTeDA



13C8-PFOA


## 13C4-PFBA



13C9-PFNA



13C4-PFOS


Dataset: U:\Q4.PRO\results\170727M1\170727M1-79.qld
Last Altered: Tuesday, August 01, 2017 12:23:11 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 12:24:59 Pacific Daylight Time

Name: 170727M1_79, Date: 28-Jul-2017, Time: 01:37:35, ID: ST170727M1-12 PFC CS3 17G2709, Description: PFC CS3 17G2709


13C7-PFUnA
F46:MRM of 1 channel,ES-
$570.1>524.8$
$9.264 e+005$


Method: U:IQ4.PROIMethDBIPFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_97, Date: 28-Jul-2017, Time: 04:51:00, ID: ST170727M1-13 PFC CS3 17G2709, Description: PFC CS3 17G2709


# Quantify Sample Summary Report 

MassLynx MassLynx V4.1 SCN 945
Vista Analytical Laboratory

| Dataset: | U:IQ4.PROIresults1170727M11170727M1-97.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Tuesday, August 01, 2017 12:26:31 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 12:27:14 Pacific Daylight Time |

Name: 170727M1_97, Date: 28-Jul-2017, Time: 04:51:00, ID: ST170727M1-13 PFC CS3 17G2709, Description: PFC CS3 17G2709 (i) oft of limit cwlerra.

|  | \# Name | Trace | Area may | IS Area | Wt./Vol. | RRF | d.RT | RT | y Axis Resp. | Conc. | \%Rec | $60-150$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32 | 32 d5-N-EtFOSAA | $589.3>419$ | 1.10e4 | 5.62 e 4 | 1.000 | 0.013 | 4.12 | 4.05 | 2.45 | 193 | 118.6 |  |
| 33 - | 33 13C2-PFUnA | $565>519.8$ | 5.05 e 4 | 5.62 e 4 | 1.000 | 0.928 | 4.17 | 4.13 | 11.2 | 12.1 | 96.8 |  |
| $34 \pm=$ | 34 13C2-PFDoA | $615>569.7$ | 3.49 e 3 | 5.62 e 4 | 1.000 | 0.071 | 4.34 | 4.29 | 0.777 | 10.9 | 87.4 |  |
| $35$ | 35 13C2-PFTeDA | $714.8>669.6$ | 3.06 e 3 | 5.62 e 4 | 1.000 | 0.273 | 4.68 | 4.63 | 0.681 |  | (A) 19.9 | $\downarrow$ |
| 36 | $3613 C 4-P F B A$ | $217>171.8$ | 2.53 e 4 | 2.53 e 4 | 1.000 | 1.000 | 1.32 | 1.35 | 12.5 | 12.5 | (A00.0 |  |
| $37 \times$ | 37 13C5-PFHxA | $318>272.9$ | 7.53 e 4 | 7.53 e 4 | 1.000 | 1.000 | 3.19 | 3.15 | 5.00 | 5.00 | 100.0 |  |
| 38 | 38 13C3-PFHxS | $401.9>79.9$ | 1.07 e 4 | 1.07 e 4 | 1.000 | 1.000 | 3.56 | 3.49 | 12.5 | 12.5 | 100.0 |  |
| 39 | 39 13C8-PFOA | $421.3>376$ | 6.43 e 4 | 6.43 e 4 | 1.000 | 1.000 | 3.65 | 3.62 | 12.5 | 12.5 | 100.0 |  |
| 40 | 40 13C9-PFNA | $472.2>426.9$ | 6.88e4 | 6.88 e 4 | 1.000 | 1.000 | 3.83 | 3.80 | 12.5 | 12.5 | 100.0 |  |
| 41.4 | 41 13C4-PFOS | $503>79.9$ | 1.01e4 | 1.01 e 4 | 1.000 | 1.000 | 3.89 | 3.85 | 12.5 | 12.5 | 100.0 |  |
| 42 | 42 13C6-PFDA | $519.1>473.7$ | 6.46e4 | 6.46 e 4 | 1.000 | 1.000 | 4.01 | 3.96 | 12.5 | 12.5 | 100.0 |  |
| $43-$ | 43 13C7-PFUnA | $570.1>524.8$ | 5.62 e 4 | 5.62e4 | 1.000 | 1.000 | 4.17 | 4.13 | 12.5 | 12.5 | 100.0 |  |


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 12:30:23 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 12:32:43 Pacific Daylight Time |

Method: U:IQ4.PROMMethDBIPFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Compound name: PFBA

|  | 16 | Acq. Date | Acq. 7 me |
| :---: | :---: | :---: | :---: |
| 4xatid 170727M1_47 | ST170727M1-10 PFC CS3 17G2709 | 27-Jul-17 | 19:53:28 |
|  | IPA | 27-Jul-17 | 20:04:14 |
| 206dudilio727M1_49 | 1700848-05RE1 DPH-MW2-17 0.12259 | 27-Jul-17 | 20:14:52 |
|  | 1700848-06RE1 DPH-MW8-17 0.12027 | 27-Jul-17 | 20:25:31 |
| 43, 絸170727M1_51 | 1700848-07RE1 DPH-MW5-17 0.11998 | 27-Jul-17 | 20:36:09 |
| 53: ${ }^{\text {ath }}$ 170727M1_52 | 1700848-08RE1 DPH-MW4-17 0.11759 | 27-Jul-17 | 20:46:48 |
| 848019170727M1_53 | IPA | 27-Jul-17 | 20:57:36 |
| 44. W6 170727M1_54 | B7G0067-BLK1 Method Blank 0.125 | 27-Jul-17 | 21:08:21 |
| 絲170727M1_55 | IPA | 27-Jul-17 | 21:19:00 |
|  | B7G0067-BS1 OPR 0.125 | 27-Jul-17 | 21:29:46 |
| 484170727M1_57 | 1700855-01 TF5-EB-02 0.27357 | 27-Jul-17 | 21:40:25 |
| 354 170727M1_58 | 1700855-02 TF5-MW-987 0.27423 | 27-Jul-17 | 21:51:11 |
| 36 Xe\%170727M1_59 | 1700855-03 TF5-MW-987D 0.27164 | 27-Jul-17 | 22:01:49 |
| 730 170727M1_60 | B7G0067-MS1 Matrix Spike 0.27298 | 27-Jul-17 | 22:12:27 |
|  | B7G0067-MSD1 Matrix Spike Dup 0.2776 | 27-Jul-17 | 22:23:06 |
| 4.61170727M1_62 | 1700855-04 TF5-MW-987-D 0.26865 | 27-Jul-17 | 22:33:52 |
|  | 1700855-05 TF5-MW-991 0.2726 | 27-Jul-17 | 22:44:39 |
|  | 1700855-06 TF5-MW-991D 0.27278 | 27-Jul-17 | 22:55:17 |
| ¢ 5 170727M1_65 | IPA | 27-Jul-17 | 23:05:56 |
| 170727M1_66 | ST170727M1-11 PFC CS-1 17G2705 | 27-Jul-17 | 23:16:34 |
| 8170727M1_67 | IPA | 27-Jul-17 | 23:27:21 |
| 170727M1_68 | 1700855-07 TF5-MW-993 0.26881 | 27-Jul-17 | 23:39:43 |
| 170727M1_69 | 1700855-08 TF5-MW-993D 0.2612 | 27-Jul-17 | 23:50:22 |
| 170727M1_70 | 1700855-09 TF5-MW-994 0.25188 | 28-Jul-17 | 00:01:08 |
| 170727M1_71 | 1700871-01 EB03-20170712 0.12146 | 28-Jul-17 | 00:11:55 |
| 170727M1_72 | 1700871-02 5-GW-05_DGMW41B-20170712 ... | 28-Jul-17 | 00:22:44 |
| 170727M1_73 | 1700871-03 18-GW-18BGM03E-20170712 0... | 28-Jul-17 | 00:33:31 |
| 170727M1_74 | 1700871-04 24-GW-24IN03-20170712 0.11741 | 28-Jul-17 | 00:44:15 |
| 170727M1_75 | 1700871-05 DUP02-20170712 0.11807 | 28-Jul-17 | 00:54:53 |
| Q 1 170727M1_76 | 1700871-06 24-GW-24EX13A-20170712 0.11... | 28-Jul-17 | 01:05:31 |
|  | 1700871-07 24-GW-24MW 15D-20170712 0.1... | 28-Jul-17 | 01:16:10 |

## Dataset：Untitled

Last Altered：Tuesday，August 01， 2017 12：30：23 Pacific Daylight Time
$\qquad$

## Compound name：PFBA

| 34x whyname |  | Acq．Date | Acq．Time |
| :---: | :---: | :---: | :---: |
| W綡䊾䊾170727M1＿78 | IPA | 28－Jul－17 | 01：26：56 |
|  | ST170727M1－12 PFC CS3 17G2709 | 28－Jul－17 | 01：37：35 |
| Whtivixtu 170727M1＿80 | IPA | 28－Jul－17 | 01：48：13 |
| \％hatukut 170727M1＿81 | 1700871－08 16－GW－16＿MW28－20170712 0．1．．． | 28－Jul－17 | 01：58：51 |
|  | 1700871－09 16－GW－16＿MW19－20170712 0．1．．． | 28－Jul－17 | 02：09：38 |
|  | 1700871－10 EB04－20170713 0.11646 | 28－Jul－17 | 02：20：24 |
|  | 1700871－11 16－GW－16＿MW04－20170713 0．1．．． | 28－Jul－17 | 02：31：03 |
| Whtwidin 170727M1＿85 | IPA | 28－Jul－17 | 02：41：41 |
|  | B7G0108－BS1 OPR 0.125 | 28－Jul－17 | 02：52：19 |
|  | IPA | 28－Jul－17 | 03：02：58 |
| 3thky $170727 \mathrm{M} 1 \_88$ | B7G0108－BLK1 Method Blank 0.125 | 28－Jul－17 | 03：13：36 |
| 效170727M1＿89 | 1700856－01RE1 INFLUENT－20170710 0.121 | 28－Jul－17 | 03：24：15 |
| 絞170727M1＿90 | 1700856－02RE1 DUP05－20170710 0.11647 | 28－Jul－17 | 03：34：53 |
|  | 1700856－03RE1 MID－POINT－20170710 0.11731 | 28－Jul－17 | 03：45：40 |
| 1170727M1＿92 | 1700856－04RE1 EFFLUENT－20170710 0.12084 | 28－Jul－17 | 03：56：26 |
| X170727M1＿93 | B7G0108－MS1 Matrix Spike 0.12162 | 28－Jul－17 | 04：07：38 |
| W變170727M1＿94 | B7G0108－MSD1 Matrix Spike Dup 0.11849 | 28－Jul－17 | 04：18：57 |
| 49483䊾緼170727M1＿95 | 1700856－06RE1 ERB－01－201707110．12043 | 28－Jul－17 | 04：29：35 |
| 56才dwask whxt 170727M1＿96 | IPA | 28－Jul－17 | 04：40：21 |
| 536x4tutw 170727M1＿97 | ST170727M1－13 PFC CS3 17G2709 | 28－Jul－17 | 04：51：00 |
|  | IPA | 28－Jul－17 | 05：01：38 |

Dataset: U:IQ4.PRO|results1170727M11170727M1-97.qld

Last Altered: Tuesday, August 01, 2017 12:26:31 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 12:27:14 Pacific Daylight Time

Method: U:IQ4.PROMMethDBIPFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_97, Date: 28-Jul-2017, Time: 04:51:00, ID: ST170727M1-13 PFC CS3 17G2709, Description: PFC CS3 17G2709


## 13C3-PFBA



PFPeA


13C3-PFPeA


## Total PFBS



13C3-PFBS


PFHxA


13C2-PFHxA


Work Order 1700871

U:IQ4.PROIresults1170727M11170727M1-97.ald
Last Altered: Tuesday, August 01, 2017 12:26:31 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 12:27:14 Pacific Daylight Time

## Name: 170727M1_97, Date: 28-Jul-2017, Time: 04:51:00, ID: ST170727M1-13 PFC CS3 17G2709, Description: PFC CS3 17G2709

## PFHpA




13C4-PFHpA


## Total PFHxS



1802-PFHxS


Total PFOA



13C2-PFOA


## PFHpS



1802-PFHxS

Dataset: U:IQ4.PRO|results1170727M11170727M1-97.qld

Last Altered: Tuesday, August 01, 2017 12:26:31 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 12:27:14 Pacific Daylight Time

Name: 170727M1_97, Date: 28-Jul-2017, Time: 04:51:00, ID: ST170727M1-13 PFC CS3 17G2709, Description: PFC CS3 17G2709


## Name: 170727M1_97, Date: 28-Jul-2017, Time: 04:51:00, ID: ST170727M1-13 PFC CS3 17G2709, Description: PFC CS3 17G2709



## 13C2-PFUnA




13C8-PFOS



13C2-PFDoA


PFTrDA


13C2-PFTeDA


| Dataset: | U:IQ4.PROlresults1170727M11170727M1-97.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 12:26:31 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 12:27:14 Pacific Daylight Time |

Name: 170727M1_97, Date: 28-Jul-2017, Time: 04:51:00, ID: ST170727M1-13 PFC CS3 17G2709, Description: PFC CS3 17G2709


Dataset: U:IQ4.PRO|results1170727M11170727M1-97.qld
Last Altered: Tuesday, August 01, 2017 12:26:31 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 12:27:14 Pacific Daylight Time

Name: 170727M1_97, Date: 28-Jul-2017, Time: 04:51:00, ID: ST170727M1-13 PFC CS3 17G2709, Description: PFC CS3 17G2709 13C6-PFDA


Dataset:
U:IQ4.PROVresults1170731M11170731M1-2.qld
Last Altered: Monday, July 31, 2017 13:00:17 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:18:58 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_L17_L14 7-27-17.mdb 30 Jul 2017 07:47:21
Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
Name: 170731M1_2, Date: 31-Jul-2017, Time: 12:09:51, ID: ST170731M1-1 PFC CS0 17G2826, Description: PFC CS0 17G2826


## Name: 170731M1_2, Date: 31-Jul-2017, Time: 12:09:51, ID: ST170731M1-1 PFC CS0 17G2826, Description: PFC CS0 17G2826



Sample List: U:IQ4.PROISampleDB\170731M1.SPL
Last Modified: $\quad$ Monday, July 31, 2017 14:34:49 Pacific Daylight Time
Printed: Monday, July 31, 2017 15:57:00 Pacific Daylight Time

|  | File Name | RS OK=X | Sample ID | File Text | User Divisor 1 | Bottle | Sample Type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 170731M1_1 | -- | IPA | IPA | 1.0000 | 1:48 | Blank |
| 2 | 170731M1_2 | -- | ST170731M1-1 PFC CS0 17G2826 | PFC CSO 17G2826 | 1.0000 | 1:1 | Analyte |
| 3 | 170731M1_3 | -- | IPA | IPA | 1.0000 | 1:48 | Blank |
| 4 | 170731M1_4 | - | B7G0067-BS1 OPR 0.125 | OPR | 0.1250 | 1:3 | Analyte |
| 5 | 170731M1_5 | -- | IPA | IPA | 1.0000 | 1:48 | Blank |
| 6 | 170731M1_6 | -- | B7G0067-BLK1 Method Blank 0.125 | Method Blank | 0.1250 | 1:4 | Analyte |
| 7 | $170731 \mathrm{M1} \mathbf{1}^{7}$ | $\cdots$ | 1700855-01 TF5-EB-02 0.27357 | TF5-EB-02 | 0.2736 | 1:5 | Analyte |
| 8 | 170731M1-8 | - | 1700855-02 TF5-MW-987 0.27423 | TF5-MW-987 | 0.2742 | 1:6 | Analyte |
| 9 | 170731M1-9 | --- | 1700855-03 TF5-MW-987D 0.27164 | TF5-MW-987D | 0.2716 | $1: 7$ | Analyte |
| 10 | 170731M1-10 | -- | B7G0067-MS1 Matrix Spike 0.27298 | Matrix Spike | 0.2730 | 1:8 | Analyte |
| 11 | 170731M1-11 | -- | B7G0067-MSD1 Matrix Spike Dup 0.2776 | Matrix Spike Dup | 0.2776 | $1: 9$ | Analyte |
| 12 | 170731M1-12 | --- | 1700855-04 TF5-MW-987-D 0.26865 | TF5-MW-987-D | 0.2687 | 1:10 | Analyte |
| 13 | 170731M1_13 | -- | 1700855-05 TF5-MW-991 0.2726 | TF5-MW-991 | 0.2726 | 1:11 | Analyte |
| 14 | 170731M1 14 | -- | 1700855-06 TF5-MW-991D 0.27278 | TF5-MW-991D | 0.2728 | 1:12 | Analyte |
| 15 | 170731M1 15 | -- | 1700855-07 TF5-MW-993 0.26881 | TF5-MW-993 | 0.2688 | 1:13 | Analyte |
| 16 | 170731M1-16 | -- | 1700855-08 TF5-MW-993D 0.2612 | TF5-MW-993D | 0.2612 | 1:14 | Analyte |
| 17 | 170731M1-17 | -- | 1700855-09 TF5-MW-994 0.25188 | TF5-MW-994 | 0.2519 | 1:15 | Analyte |
| 18 | 170731M1-18 | --- | 1700845-03@40X MW-27S-20170707 0.11824 | MW-27S-20170707 | 0.1182 | 1:16 | Analyte |
| 19 | 170731M1_19 | -- | IPA | IPA | 1.0000 | 1:48 | Blank |
| 20 | 170731M1-20 | -- | ST170731M1-2 PFC CS3 17G2729 | PFC CS3 17G2729 | 1.0000 | 1:2 | Analyte |
| 21 | 170731M1_21 | -- | IPA | IPA | 1.0000 | 1:48 | Blank |
| 22 | 170731M1-22 | -- | 1700871-01 EB03-20170712 0.12146 | EB03-20170712 | 0.1215 | 1:17 | Analyte |
| 23 | 170731M1_23 | - | 1700871-02 5-GW-05_DGMW41B-20170712 0.11547 | 5-GW-05_DGMW41B-20170712 | 0.1155 | 1:18 | Analyte |
| 24 | 170731M1_24 | --- | 1700871-03 18-GW-18BGM03E-20170712 0.11765 | 18-GW-18BGM03E-20170712 | 0.1177 | 1:19 | Analyte |
| 25 | 170731M1-25 | - | 1700871-04 24-GW-24IN03-20170712 0.11741 | 24-GW-24IN03-20170712 | 0.1174 | 1:20 | Analyte |
| 26 | 170731M1 26 | -- | 1700871-05 DUP02-20170712 0.11807 | DUP02-20170712 | 0.1181 | 1:21 | Analyte |
| 27 | 170731M1-27 | - | 1700871-06 24-GW-24EX13A-20170712 0.11851 | 24-GW-24EX13A-20170712 | 0.1185 | 1:22 | Analyte |
| 28 | 170731M1_28 | - | 1700871-07 24-GW-24MW15D-20170712 0.1193 | 24-GW-24MW15D-20170712 | 0.1193 | 1:23 | Analyte |
| 29 | 170731M1_29 | - | 1700871-08 16-GW-16_MW28-20170712 0.11899 | 16-GW-16_MW28-20170712 | 0.1190 | 1:24 | Analyte |
| 30 | 170731M1 30 $170731 \mathrm{M1} 31$ | --- | 1700871-09 16-GW-16-MW19-20170712 0.11913 | 16-GW-16-MW19-20170712 | 0.1191 | 1:25 | Analyte |
| 31 | 170731M1 31 | --- | 1700871-10 EB04-20170713 0.11646 | EB04-20170713 | 0.1165 | 1:26 | Analyte |
| 32 | 170731M1_32 | --- | 1700871-11 16-GW-16_MW04-20170713 0.12043 | 16-GW-16_MW04-20170713 | 0.1204 | 1:27 | Analyte |
| 33 | 170731M1_33 | --- | IPA | IPA - | 1.0000 | 1:48 | Blank |
| 34 35 | 170731M1 ${ }^{\text {170731 }} 31$ 13 | --- | ST170731M1-3 PFC CS3 17G2729 | PFC CS3 17G2729 | 1.0000 | 1:2 | Analyte |
| 35 36 | 170731M1-36 | -- | 1700856-12RE1@5X MW-31S-20170711 0.11732 | IPA | 1.0000 | 1:48 | Blank |
| 37 | 170731M1-37 | -- | 1700935-01 RES29-BLK_20170726 0.11182 | RES29-BLK_20170726 | 0.1118 | 1:28 | Analyte |
| 38 | 170731M1 38 | --- | 1700935-04 RES29-GAC2_20170726 0.12639 | RES29-GAC2_20170726 | 0.1264 | 1:30 | Analyte |
| 39 | 170731M1_39 | --- | IPA | IPA | 1.0000 | 1:48 | Blank |
| 40 | 170731M1_40 | --- | ST170731M1-4 PFC CS3 17G2729 | PFC CS3 17G2729 | 1.0000 | 1:2 | Analyte |
|  | ork Order 170087 |  |  | $\int A C \times 8\|1\|$ |  | $A C$ | $\text { Prodetr } \sqrt{3}$ |


| Sample List: | U:IQ4.PROISampleDB\170731M1.SPL |
| :--- | :--- |
| Last Modified: | Monday, July 31, 2017 14:34:49 Pacific Daylight Time |

Printed: $\quad$ Monday, July 31, 2017 15:57:00 Pacific Daylight Time

|  | File Name | RS OK=X | Sample ID | File Text | User Divisor 1 | Bottle | Sample Type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41 | 170731M1_41 | - | IPA | IPA | 1.0000 | 1:48 | Blank |
| 42 | 170731M1_42 | - | B7G0122-BS1 OPR 0.25 | OPR | 0.2500 | 1:31 | Analyte |
| 43 | 170731M1_43 | - | IPA | IPA | 1.0000 | 1:48 | Blank |
| 44 | 170731M1_44 | -- | B7G0122-BLK1 Method Blank 0.25 | Method Blank | 0.2500 | 1:32 | Analyte |
| 45 | 170731M1-45 | - | 1700891-06RE1 VEL FOAM 0.17113 | VEL FOAM | 0.1711 | 1:33 | Analyte |
| 46 | 170731M1_46 | -- | 1700920-01 RCDM-MW-28S-20170719 0.1113 | RCDM-MW-28S-20170719 | 0.1113 | 1:34 | Analyte |
| 47 | 170731M1_47 | -- | 1700920-02 LF-MW-12S-20170719 0.11113 | LF-MW-12S-20170719 | 0.1111 | 1:35 | Analyte |
| 48 | 170731M1-48 | -- | 1700920-03 RCDM-MW-14S-20170720 0.11405 | RCDM-MW-14S-20170720 | 0.1141 | 1:36 | Analyte |
| 49 | 170731M1_49 | --- | 1700920-04 MH-DUP01-20170720 0.12177 | MH-DUP01-20170720 | 0.1218 | 1:37 | Analyte |
| 50 | 170731M1-50 | - | 1700920-05 MH-A97-20170720 0.12086 | MH-A97-20170720 | 0.1209 | 1:38 | Analyte |
| 51 | 170731M1_51 | -- | 1700920-06 MH-H93-20170720 0.11357 | MH-H93-20170720 | 0.1136 | 1:39 | Analyte |
| 52 | 170731M1_52 | - | IPA | IPA | 1.0000 | 1:48 | Blank |
| 53 | 170731M1 53 | --- | ST170731M1-5 PFC CS3 17G2729 | PFC CS3 17G2729 | 1.0000 | 1:2 | Analyte |
| 54 | 170731M1_54 | -- | IPA | IPA | 1.0000 | 1:48 | Blank |
| 55 | 170731M1_55 | - | 1700920-07 RCDM-BLANK-20170720 0.11872 | RCDM-BLANK-20170720 | 0.1187 | 1:40 | Analyte |
| 56 | 170731M1 56 | -- | 1700920-08 MH-C94-20170720 0.11568 | MH-C94-20170720 | 0.1157 | 1:41 | Analyte |
| 57 | 170731M1_57 | - | 1700920-09 RCDM-MW-13S-20170719 0.11866 | RCDM-MW-13S-20170719 | 0.1187 | 1:42 | Analyte |
| 58 | 170731M1 58 | --- | 1700920-10 LF-MW-14S-20170720 0.11481 | LF-MW-14S-20170720 | 0.1148 | 1:43 | Analyte |
| 59 | 170731M1_59 | $\cdots$ | 1700920-11 LF-MW-11BR-20170720 0.11664 | LF-MW-11BR-20170720 | 0.1166 | 1:44 | Analyte |
| 60 | 170731M1 60 | -- | 1700920-12 LF-MW-13S-20170719 0.11667 | LF-MW-13S-20170719 | 0.1167 | 1:45 | Analyte |
| 61 | 170731M1_61 | --- | 1700920-13 RCDM-MW-11BR-20170720 0.11813 | RCDM-MW-11BR-20170720 | 0.1181 | 1:46 | Analyte |
| 62 | 170731M1_62 | -- | 1700920-14 RCDM-MW-12S-20170719 0.11619 | RCDM-MW-12S-20170719 | 0.1162 | 1:47 | Analyte |
| 63 | 170731M1_63 | --- | 1700920-15 LF-MW-28S-20170719 0.11572 | LF-MW-28S-20170719 | 0.1157 | 2:1 | Analyte |
| 64 | 170731M1-64 | --- | 1700920-16 DUP-07-20170719 0.12023 | DUP-07-20170719 | 0.1202 | 2:2 | Analyte |
| 65 | 170731M1_65 | --- | 1700920-17 FRB04-20170719 0.11007 | FRB04-20170719 | 0.1101 | 2:3 | Analyte |
| 66 | 170731M1_66 | $\cdots$ | IPA | IPA | 1.0000 | 1:48 | Blank |
| 67 | 170731M1_67 | --- | ST170731M1-6 PFC CS3 17G2729 | PFC CS3 17G2729 | 1.0000 | 1:2 | Analyte |
| 68 | 170731M1_68 | -- | IPA | IPA | 1.0000 | 1:48 | Blank |



Fuli Mass Cal. Date: $6\{3 \mid 17$
Run Log Present: $\square$
\# of Samples per Sequence Checked:


Reviewed By:_ $\frac{6 / 1 / 17}{\text { Initials/Date }}$

## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
Name: 170731M1_2, Date: 31-Jul-2017, Time: 12:09:51, ID: ST170731M1-1 PFC CS0 17G2826, Description: PFC CS0 17G2826


## 13C3-PFBA



PFPeA


13C3-PFPeA F5:MRM of 1 channel,ES.


Total PFBS


F6:MRM of 2 channels,ES-


13C3-PFBS



13C2-PFHxA


Dataset:
U:\Q4.PRO\results\170731M1\170731M1-2.qld
Last Altered: Monday, July 31, 2017 13:00:17 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:18:58 Pacific Daylight Time

Name: 170731M1_2, Date: 31-Jul-2017, Time: 12:09:51, ID: ST170731M1-1 PFC CS0 17G2826, Description: PFC CS0 17G2826

## PFHpA




13C4-PFHpA



1802-PFHxS




13C2-PFOA


## PFHpS



| Dataset: | U:IQ4.PROIresults1170731M11170731M1-2.qld |
| :--- | :--- |
| Last Altered: | Monday, July 31, 2017 13:00:17 Pacific Daylight Time <br> Printed: |
| Tuesday, August 01, 2017 10:18:58 Pacific Daylight Time |  |

Name: 170731M1_2, Date: 31-Jul-2017, Time: 12:09:51, ID: ST170731M1-1 PFC CS0 17G2826, Description: PFC CS0 17G2826


| Dataset: | U:\Q4.PRO\results\170731M1\170731M1-2.qld |
| :--- | :--- |
| Last Altered: | Monday, July 31, 2017 13:00:17 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:18:58 Pacific Daylight Time |

Name: 170731M1_2, Date: 31-Jul-2017, Time: 12:09:51, ID: ST170731M1-1 PFC CS0 17G2826, Description: PFC CS0 17G2826

Printed: Tuesday, August 01, 2017 10:18:58 Pacific Daylight Time

Name: 170731M1_2, Date: 31-Jul-2017, Time: 12:09:51, ID: ST170731M1-1 PFC CS0 17G2826, Description: PFC CS0 17G2826

## PFTeDA






13C8-PFOA


13C4-PFBA




| Quantify Sample Report $\quad$ MassLynx MassLynx V4.1 SCN 945 | Page 6 of 6 |  |
| :--- | :--- | :--- |
| Vista Analytical Laboratory |  |  |
| Dataset: | U:IQ4.PROVresults 1 170731M11170731M1-2.qld |  |
| Last Altered: | Monday, July 31, 2017 13:00:17 Pacific Daylight Time |  |
| Printed: | Tuesday, August 01, 2017 10:18:58 Pacific Daylight Time |  |



## Method: U:\Q4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21 Calibration: U:|Q4.PRO|CurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_20, Date: 31-Jul-2017, Time: 15:42:57, ID: ST170731M1-2 PFC CS3 17G2729, Description: PFC CS3 17G2729

|  | \# Name | Trace | Area | IS Area | We NoL | RRF | Pred.RT | R. AT | YAx ${ }^{\text {a }}$ Resp | Cond | \% 6 PRe | 70-130 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1twaytix | 1 PFBA | $213.0>168.8$ | 2.34 e 4 | $2.66{ }^{2}$ | 1.000 |  | 1.32 | 1.38 | 11.0 | 10.1 | 101.0 |  |
|  | 2 PFPeA | $263.1>218.9$ | 4.61 e4 | 6.17 e 4 | 1.000 |  | 2.77 | 2.68 | 9.33 | 9.68 | 96.8 | - <br> ge 222 of 588 |
| 3. 4 44, | 3 PFBS | $299>79.7$ | 1.16 e 4 | 8.14 e 3 | 1.000 |  | 2.96 | 2.91 | 17.9 | 9.61 | 96.1 |  |
| 4. | 4 PFHxA | $313.2>268.9$ | 8.97 e 4 | 3.18 e4 | 1.000 |  | 3.19 | 3.15 | 14.1 | 10.0 | 100.0 |  |
| 50 | 5 PFHpA | $363>318.9$ | 7.03 e 4 | 7.19 e 4 | 1.000 |  | 3.45 | 3.42 | 12.2 | 10.3 | 103.1 |  |
| $60^{6}$ | 6 PFHxS | $398.9>79.6$ | 8.81 e 3 | 7.27 e 3 | 1.000 |  | 3.56 | 3.49 | 15.2 | 9.07 | 90.7 |  |
| $7{ }^{7} \cdot 5$ | 7 PFOA | $413>368.7$ | 7.87 e 4 | 9.66 e4 | 1.000 |  | 3.65 | 3.63 | 10.2 | 10.3 | 103.4 |  |
| 8. - 5 | 8 PFHpS | $448.9>98.8$ | 7.70 e3 | $9.66{ }^{4}$ | 1.000 |  | 3.65 | 3.68 | 0.996 | 11.9 | 119.3 |  |
|  | 9 PFNA | $462.9>418.8$ | 7.53 e 4 | 8.44 e 4 | 1.000 |  | 3.83 | 3.81 | 11.1 | 10.3 | 103.5 |  |
| 10 + | 10 PFOSA | $498.1>77.8$ | 8.77 e 3 | 1.04 e 4 | 1.000 |  | 3.84 | 3.81 | 10.5 | 9.53 | 95.3 |  |
| 11-54: | 11 PFOS | $499>79.9$ | 1.28 e 4 | 1.65 e 4 | 1.000 |  | 3.89 | 3.85 | 9.71 | 9.76 | 97.6 |  |
| 12. | 12 PFDA | $513>468.8$ | 7.50 e 4 | 7.45 e 4 | 1.000 |  | 4.01 | 3.97 | 12.6 | 10.3 | 102.9 |  |
| $13$ | 13 N -MeFOSAA | $570.1>419$ | 2.33 e 4 | 1.94 e 4 | 1.000 |  | 4.03 | 4.01 | 195 | 9.87 | 98.7 |  |
| 14.5 | 14 N -EtFOSAA | $584.2>419$ | 1.87 e 4 | 1.99 e 4 | 1.000 |  | 4.10 | 4.07 | 152 | 9.93 | 99.3 |  |
| $15$ | 15 PFUnA | $562.9>518.9$ | 5.59 e 4 | 1.04 e 5 | 1.000 |  | 4.11 | 4.14 | 6.69 | 8.97 | 89.7 |  |
| $16$ | 16 PFDS | $598.9>98.7$ | 5.96 e3 | 1.04 e 5 | 1.000 |  | 4.22 | 4.18 | 0.714 | 10.1 | 100.7 |  |
|  | 17 PFDoA | $612.9>318.8$ | 7.24 e3 | 9.86 e 3 | 1.000 |  | 4.34 | 4.30 | 9.17 | 11.4 | 113.8 |  |
| $18=4=2$ | 18 PFTrDA | $662.9>618.9$ | 8.31 e 4 | 9.86 e 3 | 1.000 |  | 4.50 | 4.47 | 105 | 10.7 | 106.8 |  |
|  | 19 PFTeDA | $712.9>668.8$ | 5.59 e 4 | 6.59e4 | 1.000 |  | 4.68 | 4.65 | 10.6 | 10.1 | 100.9 |  |
| 20.30 | 20 13C3-PFBA | $216.1>171.8$ | 2.66 e4 | 2.66 e4 | 1.000 | 1.068 | 1.32 | 1.38 | 12.5 | 11.7 |  |  |
| 21.exts | 21 13C3-PFPeA | $266>221.8$ | 6.17 e 4 | 9.37 e 4 | 1.000 | 0.271 | 2.77 | 2.67 | 3.29 | 12.1 | 97.0 |  |
| 22.5 | 22 13C3-PFBS | $302>98.8$ | 8.14 e 3 | 9.37 e 4 | 1.000 | 0.033 | 2.96 | 2.91 | 0.434 | 13.1 | 105.0 |  |
| 23-mpry緒 | 23 13C2-PFHxA | $315>269.8$ | 3.18 e 4 | 9.37 e 4 | 1.000 | 0.335 | 3.19 | 3.15 | 1.70 | 5.06 | 101.3 |  |
| 24-1-5x | 24 13C4-PFHPA | $367.2>321.8$ | 7.19 e 4 | 9.37 e 4 | 1.000 | 0.369 | 3.45 | 3.42 | 3.84 | 10.4 | 83.2 |  |
|  | 25 1802-PFHxS | $403>102.6$ | 7.27 e 3 | 1.36 e 4 | 1.000 | 0.460 | 3.56 | 3.49 | 6.66 | 14.5 | 115.7 |  |
|  | 26 13C2-PFOA | $414.9>369.7$ | 9.66 e 4 | 7.52 e 4 | 1.000 | 1.293 | 3.65 | 3.62 | 16.1 | 12.4 | 99.4 |  |
|  | 27 13C5-PFNA | $468.2>422.9$ | 8.44 e 4 | 7.07e4 | 1.000 | 0.986 | 3.83 | 3.80 | 14.9 | 15.1 | 121.2 |  |
| $28_{3}$ | 28 13C8-PFOSA | $506.1>77.7$ | 1.04 e 4 | 8.98 e 4 | 1.000 | 0.132 | 3.84 | 3.82 | 1.45 | 11.0 | 87.6 |  |
|  | 29 13C8-PFOS | $507>79.9$ | 1.65 e 4 | 1.25 e 4 | 1.000 | 1.184 | 3.89 | 3.86 | 16.5 | 13.9 | 111.1 |  |
| 300x | $3013 C 2-P F D A$ | $515.1>469.9$ | 7.45 e4 | 8.05 e 4 | 1.000 | 0.998 | 4.01 | 3.97 | 11.6 | 11.6 | 92.7 |  |
|  | 31 d3-N-MeFOSAA | $573.3>419$ | 1.94 e 4 | 8.98 e 4 | 1.000 | 0.018 | 4.03 | 4.01 | 2.71 | 153 | 94.2 |  |
| 32 3adex Mor | ke)dend-EtraskA | $589.3>419$ | 1.99 e 4 | 8.98 e 4 | 1.000 | 0.018 | 4.12 | 4.07 | 2.77 | 156 | 96.0 |  |

Vista Analytical Laboratory
Dataset: U:IQ4.PROIresults1170731M11170731M1-20.qld
Last Altered: Tuesday, August 01, 2017 10:32:13 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:32:25 Pacific Daylight Time

## Name: 170731M1_20, Date: 31-Jul-2017, Time: 15:42:57, ID: ST170731M1-2 PFC CS3 17G2729, Description: PFC CS3 17G2729



|  | File Name | RS OK=X | Sample ID |
| :---: | :---: | :---: | :---: |
| 1 | 170731M1_1 | -- | IPA |
| 2 | 170731M1_2 | - | ST170731M1-1 PFC CSO 17G2826 |
| 3 | 170731M1_3 | - | IPA |
| 4 | 170731M1_4 | - | B7G0067-BS1 OPR 0.125 |
| 5 | 170731M1_5 | - | IPA |
| 6 | 170731M1_6 | - | B7G0067-BLK1 Method Blank 0.125 |
| 7 | 170731M1_7 | --- | 1700855-01 TF5-EB-02 0.27357 |
| 8 | 170731M1_8 | $\cdots$ | 1700855-02 TF5-MW-987 0.27423 |
| 9 | 170731M1_9 | - | 1700855-03 TF5-MW-987D 0.27164 |
| 10 | 170731M1_10 | - | B7G0067-MS1 Matrix Spike 0.27298 |
| 11 | 170731M1_11 | - | B7G0067-MSD1 Matrix Spike Dup 0.2776 |
| 12 | 170731M1_12 | - | 1700855-04 TF5-MW-987-D 0.26865 |
| 13 | 170731M1-13 | - | 1700855-05 TF5-MW-991 0.2726 |
| 14 | 170731M1_14 | - | 1700855-06 TF5-MW-991D 0.27278 |
| 15 | 170731M1_15 | -- | 1700855-07 TF5-MW-993 0.26881 |
| 16 | 170731M1_16 | -- | 1700855-08 TF5-MW-993D 0.2612 |
| 17 | 170731M1-17 | - | 1700855-09 TF5-MW-994 0.25188 |
| 18 | 170731M1_18 | - | 1700845-03@40X MW-27S-20170707 0.11824 |
| 19 | 170731M1_19 | - | IPA |
| 20 | 170731M1_20 | - | ST170731M1-2 PFC CS3 17G2729 |
| 21 | 170731M1_21 | - | IPA |
| 22 | 170731M1_22 | - | 1700871-01 EB03-20170712 0.12146 |
| 23 | 170731M1_23 | - | 1700871-02 5-GW-05_DGMW41B-20170712 0.11547 |
| 24 | 170731M1-24 | -- | 1700871-03 18-GW-18BGM03E-20170712 0.11765 |
| 25 | 170731M1_25 | - | 1700871-04 24-GW-24IN03-20170712 0.11741 |
| 26 | 170731M1_26 | - | 1700871-05 DUP02-20170712 0.11807 |
| 27 | 170731M1_27 | - | 1700871-06 24-GW-24EX13A-20170712 0.11851 |
| 28 | 170731M1_28 | --- | 1700871-07 24-GW-24MW15D-20170712 0.1193 |
| 29 | 170731M1_29 | - | 1700871-08 16-GW-16_MW28-201707120.11899 |
| 30 | 170731M1-30 | - | 1700871-09 16-GW-16-MW19-201707120.11913 |
| 31 | 170731M1_31 | - | 1700871-10 EB04-20170713 0.11646 |
| 32 | 170731M1_32 | -- | 1700871-11 16-GW-16_MW04-20170713 0.12043 |
| 33 | 170731M1_33 | - | IPA |
| 34 | 170731M1_34 | - | ST170731M1-3 PFC CS3 17G2729 |
| 35 | 170731M1 ${ }^{1} 35$ | - | IPA |
| 36 | 170731M1_36 | - | 1700856-12RE1@5X MW-31S-201707110.11732 |
| 37 | 170731M1_37 | - | 1700935-01 RES29-BLK 201707260.11182 |
| 38 | 170731M1_38 | -- | 1700935-04 RES29-GAC2_201707260.12639 |
| 39 | 170731M1_39 | - | IPA |
| 40 | 170731M1_40 | - | ST170731M1-4 PFC CS3 17G2729 |



Sample List: U:IQ4.PROISampleDBI170731M1.SPL
Last Modified: $\quad$ Monday, July 31, 2017 14:34:49 Pacific Daylight Time

|  | File Name | RS OK=X | Sample ID | File Text | User Divisor 1 | Bottle | Sample Type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41 | 170731M1_41 | -- | IPA | IPA | 1.0000 | 1:48 |  |
| 42 | 170731M1-42 | - | B7G0122-BS1 OPR 0.25 | OPR | 1.0000 0.2500 | 1:48 | Blank |
| 43 | 170731M1-43 | - | IPA | IPA | 1.0000 | 1:31 $1: 48$ | Analyte <br> Blank |
| 44 | 170731M1 44 | - | B7G0122-BLK1 Method Blank 0.25 | Method Blank | 1.0000 0.2500 | 1:48 1:32 | Blank Analyte |
| 45 | 170731M1 45 | - | 1700891-06RE1 VEL FOAM 0.17113 | VEL FOAM | 0.1711 | 1:33 | Analyte |
| 46 | 170731M1_46 | $\cdots$ | 1700920-01 RCDM-MW-28S-20170719 0.1113 | RCDM-MW-28S-20170719 | 0.1113 | 1:34 | Analyte |
| 47 | 170731M1-47 | - | 1700920-02 LF-MW-12S-20170719 0.11113 | LF-MW-12S-20170719 | 0.1111 | 1:35 | Analyte |
| 48 | 170731M1_48 | $\cdots$ | 1700920-03 RCDM-MW-14S-20170720 0.11405 | RCDM-MW-14S-20170720 | 0.1141 | 1:36 | Analyte |
| 49 50 | 170731M1-49 | 二 | 1700920-04 MH-DUP01-20170720 0.12177 1700920-05 MH-A97-20170720 0.12086 | MH-DUP01-20170720 | 0.1218 | 1:37 | Analyte |
| 51 | 170731M1-51 | - | 1700920-06 MH-H93-20170720 0.11357 | MH-A97-20170720 | 0.1209 | 1:38 | Analyte |
| 52 | 170731M1_52 | -- | IPA | M IPA-H93-20170720 | $\begin{aligned} & 0.1136 \\ & 1000 n \end{aligned}$ | $1: 39$ $1: 48$ | Analyte Blank |
| 53 | 170731M1_53 | - | ST170731M1-5 PFC CS3 17G2729 | PFC CS3 17G2729 | 1.0000 | 1:2 | Analyte |
| 54 | 170731M1-54 | - | IPA | IPA | 1.0000 | 1:48 | Blank |
| 55 | 170731M1_55 | - | 1700920-07 RCDM-BLANK-20170720 0.11872 | RCDM-BLANK-20170720 | 0.1187 | 1:40 | Analyte |
| 56 | 170731M1_56 | $\cdots$ | 1700920-08 MH-C94-20170720 0.11568 | MH-C94-20170720 | 0.1157 | 1:41 | Analyte |
| 57 | 170731M1_57 | - | 1700920-09 RCDM-MW-13S-20170719 0.11866 | RCDM-MW-13S-20170719 | 0.1187 | 1:42 | Analyte |
| 58 | 170731M1_58 | - | 1700920-10 LF-MW-14S-20170720 0.11481 | LF-MW-14S-20170720 | 0.1148 | 1:43 | Analyte |
| 59 | 170731M1_59 | - | 1700920-11 LF-MW-11BR-20170720 0.11664 | LF-MW-11BR-20170720 | 0.1166 | 1:44 | Analyte |
| 60 | 170731M1-60 | - | 1700920-12 LF-MW-13S-20170719 0.11667 | LF-MW-13S-20170719 | 0.1167 | 1:45 | Analyte |
| 61 | 170731M1-61 | - | 1700920-13 RCDM-MW-11BR-20170720 0.11813 | RCDM-MW-11BR-20170720 | 0.1181 | 1:46 | Analyte |
| 62 | 170731M1-62 | - | 1700920-14 RCDM-MW-12S-20170719 0.11619 | RCDM-MW-12S-20170719 | 0.1162 | 1:47 | Analyte |
| 63 | 170731M1-63 | - | 1700920-15 LF-MW-28S-20170719 0.11572 | LF-MW-28S-20170719 | 0.1157 | 2:1 | Analyte |
| 64 | 170731M1-64 | - | 1700920-16 DUP-07-20170719 0.12023 | DUP-07-20170719 | 0.1202 | 2:2 | Analyte |
| 65 | 170731M1-65 | -- | 1700920-17 FRB04-20170719 0.11007 | FRB04-20170719 | 0.1101 | 2:3 | Analyte |
| 66 | 170731M1_66 | - | IPA | IPA | 1.0000 | 1:48 | Blank |
| 67 | 170731M1-67 | - | ST170731M1-6 PFC CS3 17G2729 | PFC CS3 17G2729 | 1.0000 | $1: 2$ | Analyte |
| 68 | 170731M1_68 | - | IPA | IPA | 1.0000 | 1:48 | Blank |

Dataset:
U:\Q4.PRO\results\170731M1\170731M1-20.qld
Last Altered: Tuesday, August 01, 2017 10:32:13 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:32:25 Pacific Daylight Time

Method: U:IQ4.PRO\MethDB\PFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21
Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
Name: 170731M1_20, Date: 31-Jul-2017, Time: 15:42:57, ID: ST170731M1-2 PFC CS3 17G2729, Description: PFC CS3 17G2729


## 13C3-PFBA




13C3-PFPeA


Total PFBS


13C3-PFBS


PFHxA


13C2-PFHxA


| Dataset: | U:\Q4.PRO\results\170731M1\170731M1-20.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 10:32:13 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:32:25 Pacific Daylight Time |

Name: 170731M1_20, Date: 31-Jul-2017, Time: 15:42:57, ID: ST170731 M1-2 PFC CS3 17G2729, Description: PFC CS3 17 G 2729




13C4-PFHpA


## Total PFHxS




1802-PFHxS



13C2-PFOA


PFHpS


1802-PFHxS


| Dataset: | U:\Q4.PRO\results\170731M1\170731M1-20.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Tuesday, August 01, 2017 10:32:13 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:32:25 Pacific Daylight Time |

Name: 170731M1_20, Date: 31-Jul-2017, Time: 15:42:57, ID: ST170731M1-2 PFC CS3 17G2729, Description: PFC CS3 17G2729


| Dataset: | U:\Q4.PRO\results\170731M1\170731M1-20.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Tuesday, August 01, 2017 10:32:13 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:32:25 Pacific Daylight Time |

Name: 170731M1_20, Date: 31-Jul-2017, Time: 15:42:57, ID: ST170731M1-2 PFC CS3 17G2729, Description: PFC CS3 17G2729



13C2-PFUnA


PFDS


F50:MRM of 2 channels,ES$598.9>80$


13C8-PFOS


PFDoA


51:MRM of 2 channels,ES $612.9>569$


13C2-PFDoA


PFTrDA


13C2-PFTeDA


Last Altered: Tuesday, August 01, 2017 10:32:13 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:32:25 Pacific Daylight Time

Name: 170731M1_20, Date: 31-Jul-2017, Time: 15:42:57, ID: ST170731M1-2 PFC CS3 17G2729, Description: PFC CS3 17 G2729


Dataset: U:IQ4.PRO|results1170731M11170731M1-20.qld
Last Altered: Tuesday, August 01, 2017 10:32:13 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:32:25 Pacific Daylight Time

Name: 170731M1_20, Date: 31-Jul-2017, Time: 15:42:57, ID: ST170731M1-2 PFC CS3 17G2729, Description: PFC CS3 17G2729


Dataset: U:IQ4.PROXresultsi170731M11170731M1-34.qld
Last Altered: Tuesday, August 01, 2017 10:33:51 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:34:05 Pacific Daylight Time

Method: U:IQ4.PROMMethDBIPFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19
Name: 170731M1_34, Date: 31-Jul-2017, Time: 18:13:24, ID: ST170731M1-3 PFC CS3 17G2729, Description: PFC CS3 17G2729


| Quantify Sample Summary Report Vista Analytical Laboratory |  | MassLynx MassLynx V4.1 SCN 945 | Page 2 of 2 |
| :---: | :---: | :---: | :---: |
| Dataset: | U:\Q4.PRO\results\17 | 1170731M1-34.qld |  |
| Last Altered: Printed: | Tuesday, August 01, Tuesday, August 01, | 0:33:51 Pacific Daylight Time 0:34:05 Pacific Daylight Time |  |

## Name: 170731M1_34, Date: 31-Jul-2017, Time: 18:13:24, ID: ST170731M1-3 PFC CS3 17G2729, Description: PFC CS3 17G2729



Sample List: U:IQ4.PROISampleDBI170731M1.SPL
Last Modified: $\quad$ Monday, July 31, 2017 14:34:49 Pacific Daylight Time
Printed: Monday, July 31, 2017 15:57:00 Pacific Daylight Time


Sample List: U:IQ4.PROISampleDBI170731M1.SPL
Last Modified: $\quad$ Monday, July 31, 2017 14:34:49 Pacific Daylight Time
Printed:
Monday, July 31, 2017 15:57:00 Pacific Daylight Time
Page Position (1, 2)

|  | File Name | RS OK=X | Sample ID |
| :---: | :---: | :---: | :---: |
| 41 | 170731M1_41 | - | IPA |
| 42 | 170731M1-42 | - | B7G0122-BS1 OPR 0.25 |
| 43 | 170731M1-43 | - | IPA |
| 44 | 170731M1_44 | - | B7G0122-BLK1 Method Blank 0.25 |
| 45 | 170731M1-45 | - | 1700891-06RE1 VEL FOAM 0.17113 |
| 46 | 170731M1_46 | -- | 1700920-01 RCDM-MW-28S-20170719 0.1113 |
| 47 | 170731M1_47 | -- | 1700920-02 LF-MW-12S-20170719 0.11113 |
| 48 | 170731M1_48 | -- | 1700920-03 RCDM-MW-14S-20170720 0.11405 |
| 49 | 170731M1_49 | - | 1700920-04 MH-DUP01-20170720 0.12177 |
| 50 | 170731M1_50 | - | 1700920-05 MH-A97-20170720 0.12086 |
| 51 | 170731M1-51 | - | 1700920-06 MH-H93-20170720 0.11357 |
| 52 | 170731M1_52 | - | IPA |
| 53 | 170731M1_53 | - | ST170731M1-5 PFC CS3 17G2729 |
| 54 | 170731M1_54 | $\cdots$ | IPA |
| 55 | 170731M1_55 | - | 1700920-07 RCDM-BLANK-20170720 0.11872 |
| 56 | 170731M1_56 | - | 1700920-08 MH-C94-20170720 0.11568 |
| 57 | 170731M1_57 | - | 1700920-09 RCDM-MW-13S-20170719 0.11866 |
| 58 | 170731M1_58 | $\cdots$ | 1700920-10 LF-MW-14S-20170720 0.11481 |
| 59 | 170731M1_59 | - | 1700920-11 LF-MW-11BR-20170720 0.11664 |
| 60 | 170731M1-60 | $\cdots$ | 1700920-12 LF-MW-13S-20170719 0.11667 |
| 61 | 170731M1_61 | --- | 1700920-13 RCDM-MW-11BR-20170720 0.11813 |
| 62 | 170731M1-62 | - | 1700920-14 RCDM-MW-12S-20170719 0.11619 |
| 63 | 170731M1_63 | - | 1700920-15 LF-MW-28S-20170719 0.11572 |
| 64 | 170731M1_64 | - | 1700920-16 DUP-07-20170719 0.12023 |
| 65 | 170731M1_65 | - | 1700920-17 FRB04-20170719 0.11007 |
| 66 | 170731M1-66 | - | IPA |
| 67 | 170731M1_67 | -- | ST170731M1-6 PFC CS3 17G2729 |
| 68 | 170731M1_68 | - | IPA |

File Text
IPA
OPR
IPA
Method Blank
VEL FOAM
RCDM-MW-28S-20170719
LF-MW-12S-20170719
RCDM-MW-14S-20170720
MH-DUP01-20170720
MH-A97-20170720
MH-H93-20170720
IPA
PFC CS3 17G2729
IPA
RCDM-BLANK-20170720
MH-C94-20170720
RCDM-MW-13S-20170719
LF-MW-14S-20170720
LF-MW-11BR-20170720
LF-MW-13S-20170719
RCDM-MW-11BR-20170720
RCDM-MW-12S-20170719
LF-MW-28S-20170719
DUP-07-20170719
FRB04-20170719
IPA
PFC CS3 17G2729
IPA

## User Divisor 1 Bottle Sample Type

| 1.0000 | $1: 48$ | Blank |
| :--- | :--- | :--- |
| 0.2500 | $1: 31$ | Analyte |
| 1.0000 | $1: 48$ | Blank |
| 0.2500 | $1: 32$ | Analyte |
| 0.1711 | $1: 33$ | Analyte |
| 0.1113 | $1: 34$ | Analyte |
| 0.1111 | $1: 35$ | Analyte |
| 0.1141 | $1: 36$ | Analyte |
| 0.1218 | $1: 37$ | Analyte |
| 0.1209 | $1: 38$ | Analyte |
| 0.1136 | $1: 39$ | Analyte |
| 1.0000 | $1: 48$ | Blank |
| 1.0000 | $1: 2$ | Analyte |
| 1.0000 | $1: 48$ | Blank |
| 0.1187 | $1: 40$ | Analyte |
| 0.1157 | $1: 41$ | Analyte |
| 0.1187 | $1: 42$ | Analyte |
| 0.1148 | $1: 43$ | Analyte |
| 0.1166 | $1: 44$ | Analyte |
| 0.1167 | $1: 45$ | Analyte |
| 0.1181 | $1: 46$ | Analyte |
| 0.1162 | $1: 47$ | Analyte |
| 0.1157 | $2: 1$ | Analyte |
| 0.1202 | $2: 2$ | Analyte |
| 0.1101 | $2: 3$ | Analyte |
| 1.0000 | $1: 48$ | Blank |
| 1.0000 | $1: 2$ | Analyte |
| 1.0000 | $1: 48$ | Blank |


| Dataset: | U:IQ4.PRO\results\170731M1\170731M1-34.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 10:33:51 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:34:05 Pacific Daylight Time |

## Method: U:\Q4.PRO\MethDB\PFAS L17 L14 7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170731M1_34, Date: 31-Jul-2017, Time: 18:13:24, ID: ST170731M1-3 PFC CS3 17G2729, Description: PFC CS3 17G2729


13C3-PFBA


Work Order 1700871

PFPeA


13C3-PFPeA


Total PFBS


13C3-PFBS


PFHxA


13C2-PFHxA


| Dataset: | U:\Q4.PRO\results\170731M1\17073/M1-34.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Tuesday, August 01, 2017 10:22:05 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:22:30 Pacific Daylight Time |

Name: 170731M1_34, Date: 31-Jul-2017, Time: 18:13:24, ID: ST170731M1-3 PFC CS3 17G2729, Description: PFC CS3 17G2729


## 13C4-PFHpA




1802-PFHxS


Total PFOA


13C2-PFOA



1802-PFHxS


| Dataset: | U:\Q4.PRO\results\170731M1\17073-1M1-34.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 10:22:05 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:22:30 Pacific Daylight Time |

## Name: 170731M1_34, Date: 31-Jul-2017, Time: 18:13:24, ID: ST170731M1-3 PFC CS3 17G2729, Description: PFC CS3 17G2729



## Dataset: <br> U:\Q4.PRO\results\170731M1\170731M1-34.qld

Last Altered: Tuesday, August 01, 2017 10:22:05 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:22:30 Pacific Daylight Time

Name: 170731M1_34, Date: 31-Jul-2017, Time: 18:13:24, ID: ST170731M1-3 PFC CS3 17G2729, Description: PFC CS3 17G2729


13C2-PFUnA




13C8-PFOS




PFTrDA


13C2-PFTeDA


## Dataset: U:IQ4.PROVresults1170731M11170731M1-34.qid

Last Altered:
Tuesday, August 01, 2017 10:22:05 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:22:30 Pacific Daylight Time

Name: 170731M1_34, Date: 31-Jul-2017, Time: 18:13:24, ID: ST170731M1-3 PFC CS3 17G2729, Description: PFC CS3 17G2729


Last Altered: Tuesday, August 01, 2017 10:22:05 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:22:30 Pacific Daylight Time

Name: 170731M1_34, Date: 31-Jul-2017, Time: 18:13:24, ID: ST170731M1-3 PFC CS3 17G2729, Description: PFC CS3 17G2729


Dataset:
U:IQ4.PROIresults1170803M21170803M2-2.qld
Last Altered: Friday, August 04, 2017 08:44:22 Pacific Daylight Time
Printed: Friday, August 04, 2017 08:48:29 Pacific Daylight Time

Method: U:IQ4.PROMMethDBIPFAS_FULL_7-27-17.mdb 28 Jul 2017 08:06:09 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08

Name: 170803M2_2, Date: 03-Aug-2017, Time: 16:12:52, ID: ST170803M2-1 PFC CSO 17H0307, Description: PFC CS0 17H0307


## Dataset:

 U:IQ4.PRO\results\170803M21170803M2-2.qldLast Altered: Friday, August 04, 2017 08:44:22 Pacific Daylight Time
Printed: Friday, August 04, 2017 08:48:29 Pacific Daylight Time

Name: 170803M2_2, Date: 03-Aug-2017, Time: 16:12:52, ID: ST170803M2-1 PFC CSO 17H0307, Description: PFC CS0 17H0307


Dataset: U:IQ4.PRO\results1170803M2\170803M2-2.qld
Last Altered: Friday, August 04, 2017 08:44:22 Pacific Daylight Time
Printed: $\quad$ Friday, August 04, 2017 08:48:29 Pacific Daylight Time

Method: U:IQ4.PRO\MethDBIPFAS_FULL_7-27-17.mdb 28 Jul 2017 08:06:09
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08
Name: 170803M2_2, Date: 03-Aug-2017, Time: 16:12:52, ID: ST170803M2-1 PFC CSO 17H0307, Description: PFC CSO 17H0307
Total PFBS

|  | \# Name | 4 | Trace | RT | Area | IS Area | Response | Primary | Conc |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4. | 3 PFBS |  | $299>79.7$ | 2.90 | 511.319 | 3555.671 | 1.798 | bb | 0.919 |

## Total PFHxS

|  |  | \# Name mataun | - 1 | RT | Area | IS Area | Response | Primary Flags |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. 28 | vim | 6 PFHxS | $398.9>79.6$ | 3.49 | 507.744 | 3810.517 | 1.666 | bb |  | 0.972 |

Total PFOA

|  | \# Name | , tremetrace | RT | Area | Area | ponse |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $11$ | 8 PFOA | 413 > 368.7 | 3.62 | 5630.639 | 54311.566 | 1.296 | bb | 1.21 |

## Total PFOS



## Total N-Me-FOSAA



## Total N-EtFOSAA



| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Friday, August 04, 2017 09:33:42 Pacific Daylight Time |
| Printed: | Friday, August 04, 2017 10:28:42 Pacific Daylight Time |

## Method: U:IQ4.PROMMethDBIPFAS_FULL_7-27-17.mdb 28 Jul 2017 08:06:09

 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08
## Compound name: PFBA



| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Friday, August 04, 2017 09:33:42 Pacific Daylight Time |
| Printed: | Friday, August 04, 2017 10:28:42 Pacific Daylight Time |

## Compound name: PFBA

| Name | ID | Acq.Date | Acq. Time |
| :---: | :---: | :---: | :---: |
| $32.45 \quad 170803 \mathrm{M} 2$ _32 | B7H0011-BLK1 Method Blank 5 | 03-Aug-17 | 21:33:58 |
| 33.170803 M 2 33 | B7H0012-BLK1 Method Blank 0.25 | 03-Aug-17 | 21:44:37 |
| 34 m, 170803M2_34 | 1700862-01 WS 2520.00025 | 03-Aug-17 | 21:55:15 |
| 35.5170803 M 2 _35 | 1700952-01 CP-IDW-072517 0.24347 | 03-Aug-17 | 22:06:01 |
| 36 , $x$ dx ${ }^{\text {d }} 170803 \mathrm{M} 2 \_36$ | 1700953-01 TF4-IDW-072517-01 0.26372 | 03-Aug-17 | 22:16:55 |
| 37. ${ }^{\text {a }}$ - 170803M2_37 | 1700953-02 TF4-IDW-072517-02 0.26543 | 03-Aug-17 | 22:27:44 |
| 38 - | 1700954-01 TF5-IDW-072517 0.25837 | 03-Aug-17 | 22:38:30 |
| $39.170803 \mathrm{M} 2 \_39$ | 1700818-01 QPFD-1 5 | 03-Aug-17 | 22:49:08 |
| $40 \times 170803 \mathrm{M} 2 \_40$ | 1700818-02 QPFD-2 5 | 03-Aug-17 | 22:59:55 |
| 41. | 1700818-03 QPFD-3 5 | 03-Aug-17 | 23:10:33 |
| 42. | 1700818-04 QPFD-4 5 | 03-Aug-17 | 23:21:11 |
|  | 1700818-05 QPFD-5 5 | 03-Aug-17 | 23:31:50 |
| 44. ¢ $^{4}$ 170803M2_44 | IPA | 03-Aug-17 | 23:42:28 |
| 45 . | ST170803M2-3 PFC CS3 17H0202 | 03-Aug-17 | 23:53:06 |
|  | IPA | 04-Aug-17 | 00:03:53 |
| 47. 2.4 - 170803 M 2 _47 | 1700818-06 QPFD-6 5 | 04-Aug-17 | 00:14:34 |
| 48 . ${ }^{\text {a }}$ | 1700818-07 QPFD-7 5 | 04-Aug-17 | 00:25:19 |
|  | 1700818-08 QPFD-8 5 | 04-Aug-17 | 00:35:57 |
| 50 : \% 170803M2_50 | 1700818-09 QPFD-9 5 | 04-Aug-17 | 00:46:44 |
| 51.4 | 1700818-10 QPFD-10 5 | 04-Aug-17 | 00:57:39 |
| 52.3170803 M 2 _52 | 1700818-11 QPFD-115 | 04-Aug-17 | 01:08:26 |
| 53.3 | 1700818-12 QPFD-12 5 | 04-Aug-17 | 01:19:04 |
| 54 - ${ }^{\text {a }}$ | 1700818-13 QPFD-13 5 | 04-Aug-17 | 01:29:51 |
| 55 - ${ }^{\text {a }}$ 170803M2_55 | 1700903-01 19585 | 04-Aug-17 | 01:40:29 |
| $56=$ Wra 170803M2_56 | B7H0010-DUP1 Duplicate 5 | 04-Aug-17 | 01:51:08 |
| 57. | 1700819-01 QPFD-14 5 | 04-Aug-17 | 02:01:46 |
| 58. | IPA | 04-Aug-17 | 02:12:27 |
|  | ST170803M2-4 PFC CS0 17H0307 | 04-Aug-17 | 02:23:13 |
| $60.4170803 \mathrm{M} 2 \ldots 60$ | IPA | 04-Aug-17 | 02:33:58 |
| 61 . 170803M2_61 | 1700819-02 QPFD-15 5 | 04-Aug-17 | 02:44:36 |
| 62.5170803 M 2 62 | 1700819-03 QPFD-16 5 | 04-Aug-17 | 02:55:15 |
| 63. | 1700819-04 QPFD-17 5 | 04-Aug-17 | 03:05:53 |
| 64 ) | 1700819-05 QPFD-18 5 | 04-Aug-17 | 03:16:32 |
| $65.170803 \mathrm{M} 2 \ldots 65$ | 1700819-06 QPFD-19 5 | 04-Aug-17 | 03:27:10 |

Work Order 1700871

| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Friday, August 04, 2017 09:33:42 Pacific Daylight Time |
| Printed: | Friday, August 04, 2017 10:28:42 Pacific Daylight Time |

## Compound name: PFBA

| Name Nemed | ID | Acq.Date | Acq. Time |
| :---: | :---: | :---: | :---: |
| 66 - 170803M2_66 | 1700819-07 QPFD-20 5 | 04-Aug-17 | 03:37:48 |
| 67.4170803 M 2 67 | 1700819-08 QPFD-21 5 | 04-Aug-17 | 03:48:35 |
| 68 . 170803 M 2 68 | 1700819-09 QPFD-22 5 | 04-Aug-17 | 03:59:13 |
| 69 , 170803M2_69 | 1700819-10 QPFD-23 5 | 04-Aug-17 | 04:10:00 |
| 70. | 1700819-11 QPFD-24 5 | 04-Aug-17 | 04:20:46 |
| 71.4170803 M 2 _71 | IPA | 04-Aug-17 | 04:31:33 |
| $72 \times 170803 \mathrm{M} 2$ 72 | ST170803M2-5 PFC CS3 17H0202 | 04-Aug-17 | 04:42:11 |
| 73 , | IPA | 04-Aug-17 | 04:52:57 |
| 74.3 . 170803 M 2 _74 | 1700819-12 QPFD-25 5 | 04-Aug-17 | 05:03:36 |
| 75 ) ${ }^{\text {a }}$ - 170803M2_75 | 1700819-13 QPFD-26 5 | 04-Aug-17 | 05:14:14 |
|  | 1700963-01 SW VEL L2 0.25308 | 04-Aug-17 | 05:24:54 |
| 77.3 ar. 170803M2_77 | 1700963-02 SW VEL L3 0.21924 | 04-Aug-17 | 05:35:42 |
| 78 , | 1700963-03 SW VEL L4 0.25896 | 04-Aug-17 | 05:46:38 |
| 79.4 | 1700963-04 VEL FOAM L2 0.02349 | 04-Aug-17 | 05:57:16 |
| 80. | IPA | 04-Aug-17 | 06:08:00 |
| 81 . 170803 M 2 _81 | 1700963-05 VEL FOAM L3 0.09911 | 04-Aug-17 | 06:18:49 |
| 82. $\quad 170803 \mathrm{M} 2 \_82$ | IPA | 04-Aug-17 | 06:29:35 |
| 83 - 170803 M 2 _83 | 1700963-06 VEL FOAM L4 0.03035 | 04-Aug-17 | 06:40:14 |
| $84.170803 \mathrm{M} 2 \_84$ | IPA | 04-Aug-17 | 06:50:52 |
| 85. | 1700925-01 I001BC43S-170724 0.12112 | 04-Aug-17 | 07:01:39 |
| $86.3170803 \mathrm{M} 2 \_86$ | IPA | 04-Aug-17 | 07:12:17 |
| 87. tr - $170803 \mathrm{M} 2 \_87$ | 1700925-03 I001BC50S-170724 0.12135 | 04-Aug-17 | 07:22:56 |
| 88 . $170803 \mathrm{M} 2 \_88$ | IPA | 04-Aug-17 | 07:33:42 |
| $89 \sim 170803 \mathrm{M} 2 \_89$ | ST170803M2-6 PFC CS3 17H0202 | 04-Aug-17 | 07:44:20 |
| $90 \sim 170803 \mathrm{M} 2 \ldots 90$ | IPA | 04-Aug-17 | 07:55:07 |

LC Calibration Standards Review Checklist
at


Run Log Present: $\square$
\# of Samples per Sequence Checked:


Reviewed By:_JAM \& $\quad 4 \mid 5$

Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results\170803M21170803M2-2.qld

Last Altered: Friday, August 04, 2017 08:44:22 Pacific Daylight Time
Printed: Friday, August 04, 2017 08:48:29 Pacific Daylight Time

## Method: U:IQ4.PRO\MethDBIPFAS_FULL_7-27-17.mdb 28 Jul 2017 08:06:09

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08

Name: 170803M2_2, Date: 03-Aug-2017, Time: 16:12:52, ID: ST170803M2-1 PFC CS0 17H0307, Description: PFC CS0 17 H 0307




## 13C3-PFPeA

F5:MRM of 1 channel,ES-







13C2-PFHxA



F14:MRM of 2 channels,ES-



1802-PFHxS
F18:MRM of 1 channel,ES$403>102.6$ $7.672 \mathrm{e}+004$

Vista Analytical Laboratory
Dataset: U:\Q4.PRO\results\170803M21170803M2-2.qld
Last Altered: Friday, August 04, 2017 08:44:22 Pacific Daylight Time
Printed: $\quad$ Friday, August 04, 2017 08:48:29 Pacific Daylight Time

Name: 170803M2_2, Date: 03-Aug-2017, Time: 16:12:52, ID: ST170803M2-1 PFC CS0 17H0307, Description: PFC CS0 17 H 0307




## 13C2-PFTeDA




F25:MRM of 2 channels, ES

3C5-PFNA

## PFOS



F30:MRM of 2 channels,ES-


13C8-PFOS


Dataset:
U:\Q4.PROIresults\170803M2\170803M2-2.qld
Last Altered: Friday, August 04, 2017 08:44:22 Pacific Daylight Time
Printed: Friday, August 04, 2017 08:48:29 Pacific Daylight Time

Name: 170803M2_2, Date: 03-Aug-2017, Time: 16:12:52, ID: ST170803M2-1 PFC CSO 17H0307, Description: PFC CS0 17H0307





F48:MRM of 2 channels,ES-
$584.2>483$




F5̌0:MRM of 2 channels,ES-

$$
4.0004 .2004 .400
$$

13C2-PFUnA
F44:MRM of 1 channel,ES$565>519.8$


Dataset:
U:\Q4.PRO\results\170803M2\170803M2-2.qld
Last Altered: Friday, August 04, 2017 08:44:22 Pacific Daylight Time
Printed:
Friday, August 04, 2017 08:48:29 Pacific Daylight Time

## Name: 170803M2_2, Date: 03-Aug-2017, Time: 16:12:52, ID: ST170803M2-1 PFC CS0 17H0307, Description: PFC CS0 17 H 0307

PFDOA
F51:MRM of 2 channels,ES-
$612.9>318.8$
$1.227 \mathrm{e}+004$


## 13C2-PFDoA

F52:MRM of 1 channel,ES-
$615>569.7$ $1.042 \mathrm{e}+005$



d3-N-MeFOSA
F37:MRM of 1 channel,ES-



## 13C2-PFTeDA

F59:MRM of 2 channels,ES



13C2-PFTeDA
F59:MRM of 2 channels,ES
$714.8>669.6$



F39:MRM of 2 channels,ES-
$526.1>219$ $1.039 \mathrm{e}+004$


## d5-N-ETFOSA




13C2-PFHxDA


Name: 170803M2_2, Date: 03-Aug-2017, Time: 16:12:52, ID: ST170803M2-1 PFC CS0 17H0307, Description: PFC CS0 17 H 0307


Vista Analytical Laboratory
Dataset: U:\Q4.PRO\results\170803M21170803M2-2.qld
Last Altered: $\quad$ Friday, August 04, 2017 08:44:22 Pacific Daylight Time
Printed: Friday, August 04, 2017 08:48:29 Pacific Daylight Time

Name: 170803M2_2, Date: 03-Aug-2017, Time: 16:12:52, ID: ST170803M2-1 PFC CS0 17H0307, Description: PFC CS0 17 H 0307


13C6-PFDA
F38:MRM of 1 channel,ES$519.1>473.7$ $9.382 \mathrm{e}+005$

3.7504 .0004 .250

13C7-PFUnA


Dataset:
U:IQ4.PROIresults1170803M21170803M2-22.qld
Last Altered: Friday, August 04, 2017 08:53:55 Pacific Daylight Time
Printed: Friday, August 04, 2017 08:57:24 Pacific Daylight Time

Method: U:IQ4.PROIMethDBIPFAS_FULL_7-27-17.mdb 28 Jul 2017 08:06:09 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08

## ${ }^{\Delta 0} 0 / 4117$

Name: 170803M2_22, Date: 03-Aug-2017, Time: 19:47:10, ID: ST170803M2-2 PFC CS3 17H0202, Description: PFC CS3 17H0202


Last Altered: Friday, August 04, 2017 08:53:55 Pacific Daylight Time
Printed: Friday, August 04, 2017 08:57:24 Pacific Daylight Time

Name: 170803M2_22, Date: 03-Aug-2017, Time: 19:47:10, ID: ST170803M2-2 PFC CS3 17H0202, Description: PFC CS3 17H0202


| Quantify Compound Summary Report |
| :--- |
| Vista Analytical Laboratory |


| Dataset: | Untitled |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, August 04, 2017 09:33:42 Pacific Daylight Time |
| Printed: | Friday, August 04, 2017 10:28:42 Pacific Daylight Time |

Method: U:IQ4.PROMMethDBIPFAS_FULL_7-27-17.mdb 28 Jul 2017 08:06:09
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08
Compound name: PFBA

|  | ID. | Acq. Date | Acq. Time |
| :---: | :---: | :---: | :---: |
| 170803M2_1 | IPA | 03-Aug-17 | 16:02:09 |
|  | ST170803M2-1 PFC CSO 17H0307 | 03-Aug-17 | 16:12:52 |
| 3xtydxuk 170803M2_3 | IPA | 03-Aug-17 | 16:23:40 |
|  | 1700925-02 SB01-170724 0.12178 | 03-Aug-17 | 16:34:26 |
| 5xtexturym 170803M2_5 | 1700925-06 EB01-170724 0.1185 | 03-Aug-17 | 16:45:12 |
| 66xdkexukix 170803M2_6 | 1700929-01 MATP01001 0.11834 | 03-Aug-17 | 16:55:51 |
| $170803 \mathrm{M} 2 \_7$ | 1700938-01 NORP08102 0.11844 | 03-Aug-17 | 17:06:36 |
| 8W | 1700938-02 NORP08103 0.12014 | 03-Aug-17 | 17:17:30 |
| 9xthk | 1700936-01 BULK TANK \#1 0.005 | 03-Aug-17 | 17:28:17 |
|  | 1700936-02 BULK TANK \#2 0.005 | 03-Aug-17 | 17:38:55 |
| Hfthaterkita 170803M2_11 | 1700871-11@5X 16-GW-16_MW04-2017071... | 03-Aug-17 | 17:49:34 |
|  | IPA | 03-Aug-17 | 18:00:12 |
|  | 1700925-01@15X 1001BC43S-170724 0.12112 | 03-Aug-17 | 18:10:51 |
|  | IPA | 03-Aug-17 | 18:21:33 |
|  | 1700925-03@15X 1001BC50S-170724 0.12135 | 03-Aug-17 | 18:32:17 |
|  | IPA | 03-Aug-17 | 18:42:55 |
| 17xwxutyx 170803M2_17 | B7G0122-BS 1 OPR 0.25 | 03-Aug-17 | 18:53:33 |
|  | IPA | 03-Aug-17 | 19:04:20 |
| 4grdxasatu 170803M2_19 | B7G0122-BLK1 Method Blank 0.25 | 03-Aug-17 | 19:14:58 |
|  | 1700891-06RE1 VEL FOAM 0.17113 | 03-Aug-17 | 19:25:37 |
| 213 | IPA | 03-Aug-17 | 19:36:23 |
|  | ST170803M2-2 PFC CS3 17H0202 | 03-Aug-17 | 19:47:10 |
| 170803M2_23 | IPA | 03-Aug-17 | 19:57:57 |
|  | B7H0007-BS1 OPR 0.25 | 03-Aug-17 | 20:08:35 |
|  | B7H0010-BS1 OPR 5 | 03-Aug-17 | 20:19:13 |
|  | B7H0011-BS1 OPR 5 | 03-Aug-17 | 20:29:52 |
| 170803M2_27 | B7H0012-BS1 OPR 0.25 | 03-Aug-17 | 20:40:30 |
|  | B7H0007-BSD1 LCS Dup 0.25 | 03-Aug-17 | 20:51:17 |
|  | IPA | 03-Aug-17 | 21:01:55 |
| 50 khkstax 170803M2_30 | B7H0007-BLK1 Method Blank 0.25 | 03-Aug-17 | 21:12:41 |
|  | B7H0010-BLK1 Method Blank 5 | 03-Aug-17 | 21:23:20 |


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Friday, August 04, 2017 09:33:42 Pacific Daylight Time |
| Printed: | Friday, August 04, 2017 10:28:42 Pacific Daylight Time |

Compound name: PFBA

| Name |  | Acq, Date | Acq. Time |
| :---: | :---: | :---: | :---: |
| 32 Wkw | B7H0011-BLK1 Method Blank 5 | 03-Aug-17 | 21:33:58 |
|  | B7H0012-BLK1 Method Blank 0.25 | 03-Aug-17 | 21:44:37 |
|  | 1700862-01 WS 2520.00025 | 03-Aug-17 | 21:55:15 |
|  | 1700952-01 CP-IDW-072517 0.24347 | 03-Aug-17 | 22:06:01 |
| 36.xivisis 170803M2_36 | 1700953-01 TF4-IDW-072517-01 0.26372 | 03-Aug-17 | 22:16:55 |
|  | 1700953-02 TF4-IDW-072517-02 0.26543 | 03-Aug-17 | 22:27:44 |
|  | 1700954-01 TF5-IDW-072517 0.25837 | 03-Aug-17 | 22:38:30 |
|  | 1700818-01 QPFD-1 5 | 03-Aug-17 | 22:49:08 |
|  | 1700818-02 QPFD-2 5 | 03-Aug-17 | 22:59:55 |
|  | 1700818-03 QPFD-3 5 | 03-Aug-17 | 23:10:33 |
|  | 1700818-04 QPFD-4 5 | 03-Aug-17 | 23:21:11 |
|  | 1700818-05 QPFD-5 5 | 03-Aug-17 | 23:31:50 |
|  | IPA | 03-Aug-17 | 23:42:28 |
| 455kwht | ST170803M2-3 PFC CS3 17H0202 | 03-Aug-17 | 23:53:06 |
|  | IPA | 04-Aug-17 | 00:03:53 |
| 767WWhathext 170803M2_47 | 1700818-06 QPFD-6 5 | 04-Aug-17 | 00:14:34 |
| 46, whw | 1700818-07 QPFD-7 5 | 04-Aug-17 | 00:25:19 |
| 49 5 Whwivivit 170803M2_49 | 1700818-08 QPFD-8 5 | 04-Aug-17 | 00:35:57 |
| 50, | 1700818-09 QPFD-9 5 | 04-Aug-17 | 00:46:44 |
|  | 1700818-10 QPFD-10 5 | 04-Aug-17 | 00:57:39 |
|  | 1700818-11 QPFD-115 | 04-Aug-17 | 01:08:26 |
|  | 1700818-12 QPFD-12 5 | 04-Aug-17 | 01:19:04 |
| 54, | 1700818-13 QPFD-13 5 | 04-Aug-17 | 01:29:51 |
| 5zekwh mix 170803M2_55 | 1700903-01 19585 | 04-Aug-17 | 01:40:29 |
|  | B7H0010-DUP1 Duplicate 5 | 04-Aug-17 | 01:51:08 |
|  | 1700819-01 QPFD-14 5 | 04-Aug-17 | 02:01:46 |
|  | IPA | 04-Aug-17 | 02:12:27 |
|  | ST170803M2-4 PFC CSO 17H0307 | 04-Aug-17 | 02:23:13 |
| 66xwhers 170803M2_60 | IPA | 04-Aug-17 | 02:33:58 |
|  | 1700819-02 QPFD-15 5 | 04-Aug-17 | 02:44:36 |
| 622dutax krit 170803M2_62 | 1700819-03 QPFD-16 5 | 04-Aug-17 | 02:55:15 |
|  | 1700819-04 QPFD-17 5 | 04-Aug-17 | 03:05:53 |
| 646x | 1700819-05 QPFD-18 5 | 04-Aug-17 | 03:16:32 |
|  | 1700819-06 QPFD-19 5 | 04-Aug-17 | 03:27:10 |

Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN 945
Vista Analytical Laboratory

Vista Analytical Laboratory

| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Friday, August 04, 2017 09:33:42 Pacific Daylight Time |
| Printed: | Friday, August 04, 2017 10:28:42 Pacific Daylight Time |

## Compound name: PFBA

| Name | 1 D | Acq. Date | Acq.Time |
| :---: | :---: | :---: | :---: |
|  | 1700819-07 QPFD-20 5 | 04-Aug-17 | 03:37:48 |
|  | 1700819-08 QPFD-21 5 | 04-Aug-17 | 03:48:35 |
| 68. | 1700819-09 QPFD-22 5 | 04-Aug-17 | 03:59:13 |
|  | 1700819-10 QPFD-23 5 | 04-Aug-17 | 04:10:00 |
| 70 (xaty 170803M2_70 | 1700819-11 QPFD-24 5 | 04-Aug-17 | 04:20:46 |
|  | IPA | 04-Aug-17 | 04:31:33 |
| $72 \times 3$ 2 | ST170803M2-5 PFC CS3 17H0202 | 04-Aug-17 | 04:42:11 |
|  | IPA | 04-Aug-17 | 04:52:57 |
|  | 1700819-12 QPFD-25 5 | 04-Aug-17 | 05:03:36 |
| 75 Wraximit 170803 M 2 _75 | 1700819-13 QPFD-26 5 | 04-Aug-17 | 05:14:14 |
| 76 | 1700963-01 SW VEL L2 0.25308 | 04-Aug-17 | 05:24:54 |
| 77.5 | 1700963-02 SW VEL L3 0.21924 | 04-Aug-17 | 05:35:42 |
|  | 1700963-03 SW VEL L4 0.25896 | 04-Aug-17 | 05:46:38 |
|  | 1700963-04 VEL FOAM L2 0.02349 | 04-Aug-17 | 05:57:16 |
|  | IPA | 04-Aug-17 | 06:08:00 |
| 817whtury 170803M2_81 | 1700963-05 VEL FOAM L3 0.09911 | 04-Aug-17 | 06:18:49 |
| 82W Wrytut 170803M2_82 | IPA | 04-Aug-17 | 06:29:35 |
| 836\% | 1700963-06 VEL FOAM L4 0.03035 | 04-Aug-17 | 06:40:14 |
|  | IPA | 04-Aug-17 | 06:50:52 |
| 65, | 1700925-01 I001BC43S-170724 0.12112 | 04-Aug-17 | 07:01:39 |
| 660 Whrser 170803M2_86 | IPA | 04-Aug-17 | 07:12:17 |
| 87 Whrwity 170803M2_87 | 1700925-03 I001BC50S-170724 0.12135 | 04-Aug-17 | 07:22:56 |
|  | IPA | 04-Aug-17 | 07:33:42 |
|  | ST170803M2-6 PFC CS3 17H0202 | 04-Aug-17 | 07:44:20 |
| 90-ry 170803M2_90 | IPA | 04-Aug-17 | 07:55:07 |

Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results\170803M21170803M2-22.qld

Last Altered: Friday, August 04, 2017 08:53:55 Pacific Daylight Time
Printed: Friday, August 04, 2017 08:57:24 Pacific Daylight Time

Method: U:IQ4.PROIMethDB\PFAS_FULL_7-27-17.mdb 28 Jul 2017 08:06:09
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08
Name: 170803M2_22, Date: 03-Aug-2017, Time: 19:47:10, ID: ST170803M2-2 PFC CS3 17H0202, Description: PFC CS3 17 H 0202




## 13C3-PFPeA

F5:MRM of 1 channel ES
2.6002 .800







F14:MRM of 2 channels,ES-


## 13C4-PFHpA

F15:MRM of 1 channel ES
channel,ES
$367.2>321.8$
$7.316 \mathrm{e}+005$


F16:MRM of 2 channels,ES-

1802-PFHxS
F18:MRM of 1 channel,ES-
$403>102.6$
100
F18:MRM of 1 channel,ES-
$403>102.6$
100
F18:MRM of 1 channel,ES-
$403>102.6$
100


## Name: 170803M2_22, Date: 03-Aug-2017, Time: 19:47:10, ID: ST170803M2-2 PFC CS3 17H0202, Description: PFC CS3 17H0202






F19:MRM of 2 channels,ES-


## 13C2-PFOA

F20:MRM of 1 channel,ES-


PFHpS


F24:MRM of 4 channels,ES$448.9>79.9$


13C2-PFTeDA
F59:MRM of 2 channels,ES-


## PFNA



F25:MRM of 2 channels, ES-


13C5-PFNA


PFOSA
F28:MRM of 2 channels,ES-


PFOS


- F30:MRM of 2 channels,ES-


13C8-PFOS
F33:MRM of 1 channel,ES-
$507>79.9$


## Vista Analytical Laboratory

Dataset:
U:\Q4.PROIresults1170803M21170803M2-22.qld
Last Altered: Friday, August 04, 2017 08:53:55 Pacific Daylight Time
Printed:
Friday, August 04, 2017 08:57:24 Pacific Daylight Time

Name: 170803M2_22, Date: 03-Aug-2017, Time: 19:47:10, ID: ST170803M2-2 PFC CS3 17H0202, Description: PFC CS3 17H0202



F48:MRM of 2 channels,ES-
$584.2>483$


## d5-N-EtFOSAA

F49:MRM of 1 channel, ES-
$589.3>419$
$2.259 \mathrm{e}+005$



F43:MRM of 2 channels,ES$562.9>269$


13C2-PFUnA
F44:MRM of 1 channel,ES




F50:MRM of 2 channels,ES-
$598.9>80$


13C2-PFUnA
F44:MRM of 1 channel,ES $565>519.8$


Dataset:
U:IQ4.PRO\results\170803M2\170803M2-22.qld
Last Altered: Friday, August 04, 2017 08:53:55 Pacific Daylight Time
Printed: Friday, August 04, 2017 08:57:24 Pacific Daylight Time

Name: 170803M2_22, Date: 03-Aug-2017, Time: 19:47:10, ID: ST170803M2-2 PFC CS3 17H0202, Description: PFC CS3 17H0202


## PFTeDA

F58:MRM of 4 channels,ES-


F58:MRM of 4 channels,ES-


13C2-PFTeDA



F39:MRM of 2 channels,ES-
$526.1>219$

d5-N-ETFOSA
F42:MRM of 1 channel,ES-
$531.1>168.9$


## PFHxDA

F60:MRM of 2 channels,ES-
F60:MRM of 2 channels,ES


F60:MRM of 2 channels,ES-


13C2-PFHxDA
F61:MRM of 1 channel,ES


| Dataset: | U:\Q4.PRO\results\170803M2\170803M2-22.qld |
| :--- | :--- |
| Last Altered: | Friday, August 04, 2017 08:53:55 Pacific Daylight Time |
| Printed: | Friday, August 04, 2017 08:57:24 Pacific Daylight Time |

Name: 170803M2_22, Date: 03-Aug-2017, Time: 19:47:10, ID: ST170803M2-2 PFC CS3 17H0202, Description: PFC CS3 17H0202

## PFODA <br> 

d7-N-MeFOSE
F54:MRM of 1 channel,ES$623.1>58.9$ $5.610 \mathrm{e}+005$








## 13C8-PFOA

F21:MRM of 1 channel,ES-
$421.3>376$




13C2-PFHxDA
F61:MRM of 1 channel,ES-
$815>769.7$
100
$4.319 e+005$

| Dataset: | U:\Q4.PROVresults\170803M2\170803M2-22.qld |
| :--- | :--- |
| Last Altered: | Friday, August 04, 2017 08:53:55 Pacific Daylight Time |
| Printed: | Friday, August 04, 2017 08:57:24 Pacific Daylight Time |

Name: 170803M2_22, Date: 03-Aug-2017, Time: 19:47:10, ID: ST170803M2-2 PFC CS3 17H0202, Description: PFC CS3 17H0202

```
13C4-PFOS
    F31:MRM of 1 channel,ES-
                503>79.9
```


13C6-PFDA
F38:MRM of 1 channel,ES
$519.1>473.7$ $1.036 \mathrm{e}+006$


## INITIAL CALIBRATION

Vista Analytical Laboratory
Dataset:
U:\Q4.PRO\results1170727M11170727M1-CRV.qld
Last Altered:
Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:08:22 Pacific Daylight Time

Method: U:IQ4.PROIMethDBIPFAS_L17_L14_7-27-17.mdb 28 Jul 2017 08:40:43 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Compound name: PFBA
Coefficient of Determination: $R^{\wedge} 2=0.999016$
Calibration curve: $-0.000148745^{*} x^{\wedge} 2+1.144{ }^{*} x+0.0934277$
Response type: Internal Std ( Ref 20 ), Area * ( IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

| - | \# Name |  | Std Conc | RT | Area - IS Area |  | Response Conc. \%Dev Conc. Flag |  |  |  | COD COD Flag $x=$ excluded |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 | 1 170727M1 6 | Standard | 0.250 | 1.32 | 402.541 | 13153.632 | 0.383 | 0.3 | 1.1 | NO | 0.999 | NO | MM |
| 2. $4 \times$ | 2 170727M1_7 | Standard | 0.500 | 1.32 | 900.679 | 16229.239 | 0.694 | 0.5 | 5.0 | NO | 0.999 | NO | bb |
| 3.15 | 3 170727M1_8 | Standard | 1.000 | 1.32 | 1532.875 | 13631.894 | 1.406 | 1.1 | 14.7 | NO | 0.999 | NO | bb |
| 4.2 | 4 170727M1_9 | Standard | 2.000 | 1.32 | 3476.482 | 17379.277 | 2.500 | 2.1 | 5.2 | NO | 0.999 | NO | bb |
| 5 | 5 170727M1_10 | Standard | 5.000 | 1.32 | 7094.940 | 13706.406 | 6.470 | 5.6 | 11.6 | NO | 0.999 | NO | bb |
| $\stackrel{1}{4}$ | 6 170727M1_11 | Standard | 10.000 | 1.32 | 14607.091 | 16386.203 | 11.143 | 9.7 | -3.3 | NO | 0.999 | NO | bb |
| $7 \times$ | 7 170727M1_12 | Standard | 50.000 | 1.32 | 69465.063 | 15585.783 | 55.712 | 48.9 | -2.1 | NO | 0.999 | NO | bb |
| $8 \div$ | 8 170727M1_13 | Standard | 100.000 | 1.32 | 120916.445 | 13303.807 | 113.611 | 100.5 | 0.5 | NO | 0.999 | NO | bb |

## Compound name: PFPeA

Correlation coefficient: $\mathrm{r}=0.999743, \mathrm{r}^{\wedge} 2=0.999486$
Calibration curve: 0.998566 * $x+0.0863273$
Response type: Internal Std ( Ref 21 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std Conc | RT | Area | 15 Area | pons | onc. | \%Dev |  | C | D F | xclu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3. | 1 170727M1_6 | Standard | 0.250 | 2.62 | 977.753 | 42840.023 | 0.285 | 0.2 | -20.3 | NO | 0.999 | NO | MM |
| 2. | 2 170727M1_7 | Standard | 0.500 | 2.63 | 2278.154 | 48017.777 | 0.593 | 0.5 | 1.5 | NO | 0.999 | NO | MM |
| 3. | 3 170727M1_8 | Standard | 1.000 | 2.63 | 4013.757 | 44080.910 | 1.138 | 1.1 | 5.3 | NO | 0.999 | NO | MM |
| $4$ | 4 170727M1_9 | Standard | 2.000 | 2.63 | 8123.328 | 46122.711 | 2.202 | 2.1 | 5.9 | NO | 0.999 | NO | MM |
| 5.4 | 5 170727M1_10 | Standard | 5.000 | 2.63 | 19398.813 | 43342.047 | 5.595 | 5.5 | 10.3 | NO | 0.999 | NO | MM |
| 6. ${ }^{\text {a }}$ | 6 170727M1_11 | Standard | 10.000 | 2.63 | 35041.879 | 44586.609 | 9.824 | 9.8 | -2.5 | NO | 0.999 | NO | MM |
| 7 | 7 170727M1_12 | Standard | 50.000 | 2.63 | 167534.391 | 41776.168 | 50.129 | 50.1 | 0.2 | NO | 0.999 | NO | MM |
| 8 8. | 8 170727M1_13 | Standard | 100.000 | 2.63 | 297744.313 | 37430.172 | 99.433 | 99.5 | -0.5 | NO | 0.999 | NO | MM |

Quantify Compound Summary Report
Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: $\quad$ Friday, July 28, 2017 09:08:22 Pacific Daylight Time

## Compound name: PFBS

Correlation coefficient: $\mathrm{r}=0.999583, \mathrm{r}^{\wedge} 2=0.999166$
Calibration curve: 1.87908 * $x+0.124036$
Response type: Internal Std (Ref 22 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| \# Name |  |  | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev Conc Flag CoD |  |  | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1- W W W | 1 170727M1_6 | Standard | 0.250 | 2.86 | 216.161 | 5089.555 | 0.531 | 0.2 | -13.4 | NO | 0.999 | NO | MM |
| 2 | 2 170727M1_7 | Standard | 0.500 | 2.88 | 430.884 | 5384.093 | 1.000 | 0.5 | -6.7 | NO | 0.999 | NO | bb |
| $3$ | 3 170727M1_8 | Standard | 1.000 | 2.88 | 835.393 | 5220.958 | 2.000 | 1.0 | -0.2 | NO | 0.999 | NO | bb |
| $4$ | 4 170727M1_9 | Standard | 2.000 | 2.88 | 1775.403 | 5238.489 | 4.236 | 2.2 | 9.4 | NO | 0.999 | NO | bb |
| $5$ | 5 170727M1_10 | Standard | 5.000 | 2.87 | 4544.860 | 5270.990 | 10.778 | 5.7 | 13.4 | NO | 0.999 | NO | bb |
| 6 E ¢ ${ }^{\text {a }}$ | 6 170727M1_11 | Standard | 10.000 | 2.87 | 7856.220 | 5320.907 | 18.456 | 9.8 | -2.4 | NO | 0.999 | NO | bb |
| $7$ | 7 170727M1_12 | Standard | 50.000 | 2.88 | 35191.227 | 4634.577 | 94.915 | 50.4 | 0.9 | NO | 0.999 | NO | bb |
| 8 | 8 170727M1_13 | Standard | 100.000 | 2.88 | 64080.703 | 4302.573 | 186.170 | 99.0 | -1.0 | NO | 0.999 | NO | bb |

## Compound name: PFHxA

Correlation coefficient: $r=0.999556, r^{\wedge} 2=0.999111$
Calibration curve: $1.45287^{*} \times+0.152663$
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Cone | RT | Area | IS Area | Response | Conc. | \%Dev | Conc, Flag | CoD | D Flag | x-excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170727M1_6 | Standard | 0.250 | 3.13 | 1523.459 | 18704.734 | 0.407 | 0.2 | -29.9 | NO | 0.999 | NO | bb |
| 2 | 2 170727M1_7 | Standard | 0.500 | 3.14 | 3349.999 | 19036.875 | 0.880 | 0.5 | 0.1 | NO | 0.999 | NO | bb |
| 3 | 3 170727M1_8 | Standard | 1.000 | 3.13 | 6240.815 | 17953.455 | 1.738 | 1.1 | 9.1 | NO | 0.999 | NO | bb |
| $4{ }^{4}+2$ | 4 170727M1_9 | Standard | 2.000 | 3.14 | 12461.357 | 18121.797 | 3.438 | 2.3 | 13.1 | NO | 0.999 | NO | bb |
| 5 5, | 5 170727M1_10 | Standard | 5.000 | 3.13 | 30436.348 | 18473.457 | 8.238 | 5.6 | 11.3 | NO | 0.999 | NO | bb |
| 6.4 | 6 170727M1_11 | Standard | 10.000 | 3.13 | 54673.695 | 19237.354 | 14.210 | 9.7 | -3.2 | NO | 0.999 | NO | bb |
| 7 T | 7 170727M1_12 | Standard | 50.000 | 3.14 | 251307.063 | 17235.859 | 72.902 | 50.1 | 0.1 | NO | 0.999 | NO | bb |
| $8 \times$ | 8 170727M1_13 | Standard | 100.000 | 3.14 | 465411.344 | 16095.404 | 144.579 | 99.4 | -0.6 | NO | 0.999 | NO | bb |


| Quantify Compound Summary Report | MassLynx MassLynx V4 |
| :--- | :--- |
| Vista Analytical Laboratory |  |
| Datase:: | U:IQ4.PROIresults 1170727 M1 1170727M1-CRV.qld |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:08:22 Pacific Daylight Time |

$\begin{array}{ll}\text { Last Altered: } & \text { Friday, July 28, } 2017 \text { 08:49:51 Pacific Daylight Time } \\ \text { Printed: } & \text { Friday, July 28, } 2017 \text { 09:08:22 Pacific Daylight Time }\end{array}$
Printed: Friday, July 28, 2017 09:08:22 Pacific Daylight Time

## Compound name: PFHpA

Correlation coefficient: $\mathrm{r}=0.999612, \mathrm{r}^{\wedge} 2=0.999224$
Calibration curve: 1.23238 * x +0.112392
Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| 5- |  |  | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | c. | Cob | D Fl | xcluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 , | 1 170727M1_6 | Standard | 0.250 | 3.40 | 1192.731 | 43063.793 | 0.346 | 0.2 | -24.1 | NO | 0.999 | NO | bb |
| 2.4 | 2 170727M1_7 | Standard | 0.500 | 3.41 | 2552.004 | 45204.484 | 0.706 | 0.5 | -3.7 | NO | 0.999 | NO | bb |
| 3. | 3 170727M1_8 | Standard | 1.000 | 3.40 | 5112.497 | 44567.395 | 1.434 | 1.1 | 7.2 | NO | 0.999 | NO | bb |
| $4$ | 4 170727M1_9 | Standard | 2.000 | 3.40 | 9742.448 | 43767.641 | 2.782 | 2.2 | 8.3 | NO | 0.999 | NO | bb |
| 5 . | 5 170727M1_10 | Standard | 5.000 | 3.40 | 25370.670 | 44912.559 | 7.061 | 5.6 | 12.8 | NO | 0.999 | NO | bb |
| 6 , ${ }^{\text {ata }}$ | 6 170727M1_11 | Standard | 10.000 | 3.40 | 42822.836 | 42955.043 | 12.462 | 10.0 | 0.2 | NO | 0.999 | NO | bb |
| $7$ | 7 170727M1_12 | Standard | 50.000 | 3.40 | 198742.078 | 40157.961 | 61.863 | 50.1 | 0.2 | NO | 0.999 | NO | bb |
| 8. ${ }^{\text {a }}$, | 8 170727M1_13 | Standard | 100.000 | 3.41 | 369376.406 | 37780.906 | 122.210 | 99.1 | -0.9 | NO | 0.999 | NO | bb |

## Compound name: PFHxS

Correlation coefficient: $r=0.999353, r \wedge 2=0.998707$
Calibration curve: 1.63949 * x +0.27697
Response type: Internal Std ( Ref 25 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc Flag | COD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. 2 $^{2}$ ? | 1 170727M1_6 | Standard | 0.250 | 3.47 | 96.020 | 3850.929 | 0.312 | 0.0 | -91.5 | NO | 0.999 | NO | MMX |
| $2$ | 2 170727M1_7 | Standard | 0.500 | 3.49 | 280.310 | 3764.178 | 0.931 | 0.4 | -20.2 | NO | 0.999 | NO | MM |
| 3 3,tw | 3 170727M1_8 | Standard | 1.000 | 3.47 | 582.460 | 3967.092 | 1.835 | 1.0 | -5.0 | NO | 0.999 | NO | MM |
| $14$ | 4 170727M1_9 | Standard | 2.000 | 3.48 | 1200.082 | 3867.868 | 3.878 | 2.2 | 9.8 | NO | 0.999 | NO | bb |
| 5. | 5 170727M1_10 | Standard | 5.000 | 3.47 | 3145.393 | 3971.926 | 9.899 | 5.9 | 17.4 | NO | 0.999 | NO | bb |
| 6 | 6 170727M1_11 | Standard | 10.000 | 3.47 | 4979.415 | 3753.762 | 16.581 | 9.9 | -0.6 | NO | 0.999 | NO | bb |
| $7$ | 7 170727M1_12 | Standard | 50.000 | 3.47 | 23568.961 | 3626.088 | 81.248 | 49.4 | -1.2 | NO | 0.999 | NO | bb |
| 8. | 8 170727M1_13 | Standard | 100.000 | 3.48 | 43767.965 | 3339.629 | 163.820 | 99.8 | -0.2 | NO | 0.999 | NO | MM |

Quantify Compound Summary Report
Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results\170727M1\170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: $\quad$ Friday, July 28, 2017 09:08:22 Pacific Daylight Time

## Compound name: PFOA

Correlation coefficient: $\mathrm{r}=0.999168, \mathrm{r}^{\wedge} 2=0.998337$
Calibration curve: $0.97941^{*} \mathrm{x}+0.169979$
Response type: Internal Std (Ref 26 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFHpS

Correlation coefficient: $\mathrm{r}=0.999393, \mathrm{r} \wedge 2=0.998786$
Calibration curve: $0.0865329 * x+0.00638428$
Response type: Internal Std (Ref 26 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: $1 / x$, Axis trans: None


Vista Analytical Laboratory
Dataset:
U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:08:22 Pacific Daylight Time

## Compound name: PFNA

Correlation coefficient: $\mathrm{r}=0.999135, \mathrm{r} \wedge 2=0.998270$
Calibration curve: 1.06404 * $x+0.151731$
Response type: Internal Std (Ref 27 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| $4 \times 3$ | \# Name |  | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | COD CoD Flag x=excluded |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 - | 1 170727M1_6 | Standard | 0.250 | 3.77 | 1418.062 | 51114.008 | 0.347 | 0.2 | -26.7 | NO | 0.998 | NO | bb |
| $2$ | 2 170727M1_7 | Standard | 0.500 | 3.78 | 2579.519 | 51529.840 | 0.626 | 0.4 | -10.9 | NO | 0.998 | NO | bd |
|  | 3 170727M1_8 | Standard | 1.000 | 3.78 | 4744.847 | 46721.047 | 1.269 | 1.1 | 5.0 | NO | 0.998 | NO | bb |
| 4 , | 4 170727M1_9 | Standard | 2.000 | 3.78 | 10626.438 | 50271.816 | 2.642 | 2.3 | 17.0 | NO | 0.998 | NO | bb |
| 5 514.tes | 5 170727M1_10 | Standard | 5.000 | 3.78 | 25077.686 | 48716.914 | 6.435 | 5.9 | 18.1 | NO | 0.998 | No | bb |
| 6 k - $\mathrm{c}^{\text {d }}$ | 6 170727M1_11 | Standard | 10.000 | 3.78 | 43029.453 | 49942.039 | 10.770 | 10.0 | -0.2 | NO | 0.998 | NO | bb |
| 7 , Eat | 7 170727M1_12 | Standard | 50.000 | 3.78 | 190384.000 | 45725.195 | 52.046 | 48.8 | -2.5 | NO | 0.998 | No | bb |
| 8 \% ${ }^{\text {a }}$, | 8 170727M1_13 | Standard | 100.000 | 3.78 | 355715.094 | 41697.215 | 106.636 | 100.1 | 0.1 | NO | 0.998 | No | bb |

## Compound name: PFOSA

Correlation coefficient: $r=0.999394,{ }^{\wedge} \wedge 2=0.998789$
Calibration curve: 1.06848 * $x+0.223419$
Response type: Internal Std (Ref 28 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| - | \# Name Tyme mardenti |  | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev Conc, Flag CoD |  |  | CoD Flag $x$ =excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1.4 \times$ | 1 170727M1_6 | Standard | 0.250 | 3.79 | 250.989 | 11862.194 | 0.264 | 0.0 | -84.6 | NO | 0.999 | NO | bbX |
| $2+3$ | 2 170727M1_7 | Standard | 0.500 | 3.78 | 698.528 | 11221.438 | 0.778 | 0.5 | 3.8 | NO | 0.999 | NO | bb |
| 3 3 ${ }^{\text {a }}$ | 3 170727M1_8 | Standard | 1.000 | 3.78 | 996.158 | 11168.887 | 1.115 | 0.8 | -16.6 | NO | 0.999 | NO | bb |
| 4 , | 4 170727M1_9 | Standard | 2.000 | 3.79 | 2339.715 | 11376.144 | 2.571 | 2.2 | 9.8 | NO | 0.999 | NO | bb |
| 5 \% | 5 170727M1_10 | Standard | 5.000 | 3.79 | 5314.163 | 10985.451 | 6.047 | 5.5 | 9.0 | NO | 0.999 | NO | bb |
| 6 . ${ }^{\text {a }}$. | 6 170727M1_11 | Standard | 10.000 | 3.79 | 9316.069 | 11154.32¢ | 10.440 | 9.6 | -4.4 | NO | 0.999 | NO | bb |
| 7 - | 7 170727M1_12 | Standard | 50.000 | 3.79 | 38523.172 | 9284.536 | 51.865 | 48.3 | -3.3 | NO | 0.999 | NO | bb |
|  | 8 170727M1_13 | Standard | 100.000 | 3.79 | 69731.266 | 8012.283 | 108.788 | 101.6 | 1.6 | NO | 0.999 | NO | bb |

# Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960 <br> Vista Analytical Laboratory 

Dataset: U:IQ4.PRO\results\170727M1\170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:08:22 Pacific Daylight Time

## Compound name: PFOS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999093$
Calibration curve: -0.000652924 * $x^{\wedge} 2+1.07342$ * x + 0.0667583
Response type: Internal Std (Ref 29 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

| - $x^{2}$. $x^{2}$ | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | Dev | Conc. Flag | CoD CoD Flag $x=$ excluded |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170727M1_6 | Standard | 0.250 | 3.83 | 246.486 | 9351.420 | 0.329 | 0.2 | -2.1 | NO | 0.999 | NO | bb |
| $2$ | 2 170727M1_7 | Standard | 0.500 | 3.84 | 477.693 | 9058.424 | 0.659 | 0.6 | 10.4 | NO | 0.999 | NO | bb |
| 3 | 3 170727M1_8 | Standard | 1.000 | 3.83 | 942.525 | 9156.141 | 1.287 | 1.1 | 13.7 | NO | 0.999 | NO | bb |
| $4+4 \mathrm{ta}$ | 4 170727M1_9 | Standard | 2.000 | 3.83 | 1601.983 | 8775.251 | 2.282 | 2.1 | 3.3 | NO | 0.999 | NO | .. bb |
| 5 | 5 170727M1_10 | Standard | 5.000 | 3.83 | 3988.879 | 8595.392 | 5.801 | 5.4 | 7.2 | NO | 0.999 | NO | bb |
| 6.t.un* | 6 170727M1_11 | Standard | 10.000 | 3.83 | 7578.040 | 9601.248 | 9.866 | 9.2 | -8.2 | NO | 0.999 | NO | bb |
| 7. What ${ }^{\text {a }}$ | 7 170727M1_12 | Standard | 50.000 | 3.83 | 34494.703 | 8226.863 | 52.412 | 50.3 | 0.6 | NO | 0.999 | NO | bb |
| 8 8. | 8 170727M1_13 | Standard | 100.000 | 3.83 | 63517.383 | 7877.385 | 100.791 | 99.9 | -0.1 | NO | 0.999 | NO | bb |

## Compound name: PFDA

Correlation coefficient: $\mathrm{r}=0.999716, \mathrm{r}^{\wedge} 2=0.999431$
Calibration curve: 1.23228 * $x+0.147279$
Response type: Internal Std ( Ref 30 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| merer | \# Name |  | $\pm$ Std Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | OD Fla | xcluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 170727M1_6 | Standard | 0.250 | 3.95 | 1756.771 | 52030.340 | 0.422 | 0.2 | -10.8 | NO | 0.999 | NO | bb |
| 2 | 2 170727M1_7 | Standard | 0.500 | 3.95 | 3265.883 | 57299.637 | 0.712 | 0.5 | -8.3 | NO | 0.999 | NO | bb |
| 3 B | 3 170727M1_8 | Standard | 1.000 | 3.95 | 6418.463 | 54266.875 | 1.478 | 1.1 | 8.0 | NO | 0.999 | NO | bb |
| 4 | 4 170727M1_9 | Standard | 2.000 | 3.95 | 12635.267 | 56721.223 | 2.785 | 2.1 | 7.0 | NO | 0.999 | NO | bb |
|  | 5 170727M1_10 | Standard | 5.000 | 3.95 | 32229.738 | 60391.582 | 6.671 | 5.3 | 5.9 | NO | 0.999 | NO | bb |
| 6 - | 6 170727M1_11 | Standard | 10.000 | 3.95 | 55974.184 | 56074.902 | 12.478 | 10.0 | 0.1 | NO | 0.999 | NO | bb |
| 7 4, 4 ar | 7 170727M1_12 | Standard | 50.000 | 3.95 | 250603.625 | 52224.242 | 59.983 | 48.6 | -2.9 | NO | 0.999 | NO | bb |
| 8 - | 8 170727M1_13 | Standard | 100.000 | 3.95 | 494240.344 | 49584.195 | 124.596 | 101.0 | 1.0 | NO | 0.999 | NO | bb |

Vista Analytical Laboratory

| Dataset: | U:IQ4.PROlresults\170727M1\170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:08:22 Pacific Daylight Time |

## Compound name: N-MeFOSAA

Coefficient of Determination: $R^{\wedge} 2=0.999665$
Calibration curve: $0.00022775^{*} x^{\wedge} 2+19.9472$ * x + 0.0898127
Response type: Internal Std (Ref 31 ), Area * ( IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: N-EtFOSAA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998879$
Calibration curve: $0.00266631^{*} x^{\wedge} 2+15.33533^{*} x+0.19972$
Response type: Internal Std (Ref 32 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Quantify Compound Summary Report
Vista Analytical Laboratory
$\begin{array}{ll}\text { Dataset: } & \text { U:IQ4.PROIresults1170727M1\170727M1-CRV.qld } \\ & \\ \text { Last Altered: } & \text { Friday, July 28, 2017 08:49:51 Pacific Daylight Time } \\ \text { Printed: } & \text { Friday, July 28, 2017 09:08:22 Pacific Daylight Time }\end{array}$

## Compound name: PFUnA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999664$
Calibration curve: -0.000726299 * $x^{\wedge} 2+0.648776$ * $x+0.0756752$
Response type: Internal Std ( Ref 33 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type ${ }^{\text {and }}$ | Std. Conc | RT | Area | , IS Area | Response | Conc. | \%Dev | Conc. | Co | F | cexcluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. der $^{\text {a }}$ | 1 170727M1_6 | Standard | 0.250 | 4.11 | 937.638 | 53937.508 | 0.217 | 0.2 | -12.7 | NO | 1.000 | NO | bb |
| 2 . | 2170727 M 1 _7 | Standard | 0.500 | 4.11 | 1856.364 | 57651.277 | 0.402 | 0.5 | 0.8 | NO | 1.000 | NO | bb |
| $3$ | 3 170727M1_8 | Standard | 1.000 | 4.11 | 3381.308 | 53976.422 | 0.783 | 1.1 | 9.2 | NO | 1.000 | NO | bb |
| 4.4 Larandx | 4 170727M1_9 | Standard | 2.000 | 4.11 | 6702.618 | 60891.270 | 1.376 | 2.0 | 0.4 | NO | 1.000 | NO | bb |
| 5. ${ }^{\text {a }}$, | 5 170727M1_10 | Standard | 5.000 | 4.11 | 15902.064 | 56820.336 | 3.498 | 5.3 | 6.1 | NO | 1.000 | NO | bb |
| $6$ | 6 170727M1_11 | Standard | 10.000 | 4.11 | 29007.316 | 58040.508 | 6.247 | 9.6 | -3.8 | NO | 1.000 | NO | bb |
| $17$ | 7 170727M1_12 | Standard | 50.000 | 4.11 | 135465.156 | 55210.184 | 30.670 | 50.0 | -0.1 | NO | 1.000 | NO | bb |
| 8. | 8 170727M1_13 | Standard | 100.000 | 4.11 | 249990.313 | 54140.109 | 57.718 | 100.1 | 0.1 | NO | 1.000 | NO | bb |

## Compound name: PFDS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998629$
Calibration curve: $-1.32982 \mathrm{e}-005^{*} \mathrm{x}^{\wedge} 2+0.0672039$ * $\mathrm{x}+0.00706292$
Response type: Internal Std ( Ref 33), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| \% 2 | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. \%Dev |  | Conc, Flag COD |  | CoD Flag $x$-excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. ${ }^{\text {a }}$, | 1 170727M1_6 | Standard | 0.250 | 4.16 | 86.766 | 53937.508 | 0.020 | 0.2 | -22.4 | NO | 0.999 | NO | MM |
| 2. ${ }^{\text {a }}$ | 2 170727M1_7 | Standard | 0.500 | 4.16 | 172.141 | 57651.277 | 0.037 | 0.5 | -9.9 | NO | 0.999 | NO | MM |
| 3.2 | 3 170727M1_8 | Standard | 1.000 | 4.15 | 388.743 | 53976.422 | 0.090 | 1.2 | 23.5 | NO | 0.999 | NO | bb |
| 4.42 | 4 170727M1_9 | Standard | 2.000 | 4.16 | 690.005 | 60891.270 | 0.142 | 2.0 | 0.2 | NO | 0.999 | NO | bb |
| 5 - | 5 170727M1_10 | Standard | 5.000 | 4.16 | 1779.465 | 56820.336 | 0.391 | 5.7 | 14.5 | NO | 0.999 | NO | bb |
| $6.412 \times 4$ | 6 170727M1_11 | Standard | 10.000 | 4.16 | 3001.466 | 58040.508 | 0.646 | 9.5 | -4.7 | NO | 0.999 | NO | bb |
| 7.3. | 7 170727M1_12 | Standard | 50.000 | 4.16 | 14488.668 | 55210.184 | 3.280 | 49.2 | -1.6 | NO | 0.999 | NO | bb |
| $8$ | 8 170727M1_13 | Standard | 100.000 | 4.16 | 28680.693 | 54140.109 | 6.622 | 100.4 | 0.4 | NO | 0.999 | NO | bb |

Quantify Compound Summary Report
Vista Analytical Laboratory
Dataset:
U:\Q4.PRO\results\170727M11170727M1-CRV.qld
Last Altered:
Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:08:22 Pacific Daylight Time

## Compound name: PFDoA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997867$
Calibration curve: 0.000108363 * $x^{\wedge} 2+0.920945$ * x + 0.119714
Response type: Internal Std (Ref 34 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name |  | Std. Conc | RT | Area | IS Area | Response | Conc. \% \% ev |  | Conc. Flag COD |  | CoD Flag $x$-excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170727M1_6 | Standard | 0.250 | 4.28 | 107.979 | 4359.285 | 0.310 | 0.2 | -17.5 | NO | 0.998 | NO | MM |
| 2 2-m | 2 170727M1_7 | Standard | 0.500 | 4.27 | 187.376 | 4725.039 | 0.496 | 0.4 | -18.4 | NO | 0.998 | NO | MM |
| 3 | 3 170727M1_8 | Standard | 1.000 | 4.28 | 387.923 | 4065.133 | 1.193 | 1.2 | 16.5 | NO | 0.998 | NO | bd |
| 4. | 4 170727M1_9 | Standard | 2.000 | 4.27 | 764.237 | 4580.176 | 2.086 | 2.1 | 6.7 | NO | 0.998 | NO | bd |
| 5 , | 5 170727M1_10 | Standard | 5.000 | 4.27 | 1877.270 | 4125.885 | 5.687 | 6.0 | 20.8 | NO | 0.998 | NO | bb |
|  | 6 170727M1_11 | Standard | 10.000 | 4.27 | 2974.082 | 4254.241 | 8.739 | 9.3 | -6.5 | NO | 0.998 | NO | bb |
| 7.4.4. | 7 170727M1_12 | Standard | 50.000 | 4.28 | 15238.717 | 4195.593 | 45.401 | 48.9 | -2.2 | NO | 0.998 | NO | bb |
| 8 8.4. | 8 170727M1_13 | Stȧndard | 100.000 | 4.28 | 31571.641 | 4206.188 | 93.825 | 100.6 | 0.6 | NO | 0.998 | NO | bb |

## Compound name: PFTrDA

Correlation coefficient: $\mathrm{r}=0.999051, \mathrm{r}^{\wedge} 2=0.998103$
Calibration curve: $8.39255{ }^{*} x+1.22744$
Response type: Internal Std (Ref 34 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name ${ }^{\text {a }}$, Type |  | Std. Conc | RT | Area | IS Area | Response | Conc. \% \% ev Conc. Flag |  |  | CoD CoD Flag $x=$ excluded |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14.4 ${ }^{\text {a }}$ | 1 170727M1_6 | Standard | 0.250 | 4.43 | 949.985 | 4359.285 | 2.724 | 0.2 | -28.7 | NO | 0.998 | NO | bb |
| 2 2*, $x^{2}$ \% | 2 170727M1_7 | Standard | 0.500 | 4.44 | 2085.832 | 4725.039 | 5.518 | 0.5 | 2.2 | NO | 0.998 | NO | bb |
| 3 | 3 170727M1_8 | Standard | 1.000 | 4.44 | 3568.302 | 4065.133 | 10.972 | 1.2 | 16.1 | NO | 0.998 | NO | bb |
| 4 4, wat | 4 170727M1_9 | Standard | 2.000 | 4.44 | 6820.030 | 4580.176 | 18.613 | 2.1 | 3.6 | NO | 0.998 | NO | bb |
| 5* | 5 170727M1_10 | Standard | 5.000 | 4.44 | 16192.957 | 4125.885 | 49.059 | 5.7 | 14.0 | NO | 0.998 | NO | bb |
|  | 6 170727M1_11 | Standard | 10.000 | 4.44 | 27675.627 | 4254.241 | 81.318 | 9.5 | -4.6 | NO | 0.998 | NO | bb |
| 7 | 7 170727M1_12 | Standard | 50.000 | 4.43 | 134870.219 | 4195.593 | 401.821 | 47.7 | -4.5 | NO | 0.998 | NO | bb |
| $8$ | 8 170727M1_13 | Standard | 100.000 | 4.44 | 288052.313 | 4206.188 | 856.037 | 101.9 | 1.9 | NO | 0.998 | NO | bb |

Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed:
Friday, July 28, 2017 09:08:22 Pacific Daylight Time

## Compound name: PFTeDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999478$
Calibration curve: -0.00104256 * $x^{\wedge} 2+1.20262$ * $x+0.131178$
Response type: Internal Std ( Ref 35), Area * ( IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| Kxam | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag CoD CoD Flag x-excluded |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 l + | 1 170727M1_6 | Standard | 0.250 | 4.61 | 648.233 | 20264.934 | 0.400 | 0.2 | -10.6 | NO | 0.999 | NO | MM |
| 2 , | 2 170727M1_7 | Standard | 0.500 | 4.62 | 1160.108 | 20001.139 | 0.725 | 0.5 | -1.2 | NO | 0.999 | NO | MM |
| $3 \text {. }$ | 3 170727M1_8 | Standard | 1.000 | 4.61 | 1839.107 | 16096.357 | 1.428 | 1.1 | 8.0 | NO | 0.999 | NO | bb |
| 4 - Wu | 4 170727M1_9 | Standard | 2.000 | 4.61 | 3400.659 | 15958.571 | 2.664 | 2.1 | 5.5 | NO | 0.999 | NO | bb |
| 5 . 5 | 5 170727M1_10 | Standard | 5.000 | 4.61 | 7239.503 | 14196.442 | 6.374 | 5.2 | 4.3 | NO | 0.999 | NO | bb |
|  | 6 170727M1_11 | Standard | 10.000 | 4.61 | 13249.020 | 14711.492 | 11.257 | 9.3 | -6.7 | NO | 0.999 | NO | bb |
| $7 . \quad$ erther | 7 170727M1_12 | Standard | 50.000 | 4.61 | 64597.203 | 13866.051 | 58.233 | 50.5 | 1.1 | NO | 0.999 | NO | bb |
| 8 \% | 8 170727M1_13 | Standard | 100.000 | 4.61 | 152598.266 | 17381.359 | 109.743 | 99.8 | -0.2 | NO | 0.999 | NO | bb |

## Compound name: 13C3-PFBA

Response Factor: 0.823368
RRF SD: 0.0102963 , Relative SD: 1.25051
Response type: Internal Std (Ref 36 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area IS Area Response |  |  | Conc. \%Dev |  | Conc. Flag | CoD ${ }^{\text {CoDFlag }}$ | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 170727M1_6 | Standard | 12.500 | 1.32 | 13153.632 | 15685.795 | 10.482 | 12.7 | 1.8 | NO | NO | MM |
| 2 - 2 | 2170727 M 1 -7 | Standard | 12.500 | 1.32 | 16229.239 | 19621.338 | 10.339 | 12.6 | 0.5 | NO | NO | bb |
| $3$ | 3 170727M1_8 | Standard | 12.500 | 1.32 | 13631.894 | 16595.234 | 10.268 | 12.5 | -0.2 | NO | NO | bb |
| 4. +1. | 4 170727M1_9 | Standard | 12.500 | 1.33 | 17379.277 | 20821.438 | 10.434 | 12.7 | 1.4 | NO | NO | bb |
| $5 \times$ | 5 170727M1_10 | Standard | 12.500 | 1.32 | 13706.406 | 16931.240 | 10.119 | 12.3 | -1.7 | NO | NO | bb |
| 6. | 6 170727M1_11 | Standard | 12.500 | 1.33 | 16386.203 | 19933.900 | 10.275 | 12.5 | -0.2 | NO | NO | bb |
| 7 -dy | 7 170727M1_12 | Standard | 12.500 | 1.33 | 15585.783 | 18930.279 | 10.292 | 12.5 | -0.0 | NO | NO | bb |
| $8 \times$ | 8 170727M1_13 | Standard | 12.500 | 1.32 | 13303.807 | 16419.309 | 10.128 | 12.3 | -1.6 | NO | NO | bb |

Vista Analytical Laboratory
Dataset: U:\Q4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed Friday, July 28, 2017 09:08:22 Pacific Daylight Time

## Compound name: 13C3-PFPeA

Response Factor: 0.264201
RRF SD: 0.00819028, Relative SD: 3.10002
Response type: Internal Std (Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C3-PFBS

Response Factor: 0.0306879
RRF SD: 0.000800336, Relative SD: 2.60798
Response type: Internal Std ( Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: RF


Vista Analytical Laboratory
Dataset: U:IQ4.PRO\resultsl170727M11170727M1-CRV.qld

Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:08:22 Pacific Daylight Time

## Compound name: 13C2-PFHxA

Response Factor: 0.274967
RRF SD: 0.00571947 , Relative SD: 2.08006
Response type: Internal Std (Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: RF

| + | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag $\quad \mathrm{COD}$ | C CoDFlag | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 L + | 1 170727M1_6 | Standard | 5.000 | 3.13 | 18704.734 | 66777.414 | 1.401 | 5.1 | 1.9 | NO | NO | bb |
| 2 ) 2 , | 2 170727M1_7 | Standard | 5.000 | 3.14 | 19036.875 | 68960.672 | 1.380 | 5.0 | 0.4 | NO | NO | bb |
| 3 , | 3 170727M1_8 | Standard | 5.000 | 3.14 | 17953.455 | 65807.906 | 1.364 | 5.0 | -0.8 | NO | NO | bb |
| $4$ | 4 17.0727M1_9.. | Standard | 5.000 | 3.13 | 18121.797 | 68399.328 | 1.325 | 4.8 | -3.6 | NO | NO | bb. |
| 5 d ${ }^{2}$ andm | 5 170727M1_10 | Standard | 5.000 | 3.13 | 18473.457 | 68240.281 | 1.354 | 4.9 | -1.5 | NO | NO | bb |
| 6 , ${ }^{\text {a }}$, | 6 170727M1_11 | Standard | 5.000 | 3.14 | 19237.354 | 67807.313 | 1.419 | 5.2 | 3.2 | NO | NO | bb |
|  | 7 170727M1_12 | Standard | 5.000 | 3.13 | 17235.859 | 62651.332 | 1.376 | 5.0 | 0.1 | NO | NO | bb |
| 8 | 8 170727M1_13 | Standard | 5.000 | 3.14 | 16095.404 | 58255.043 | 1.381 | 5.0 | 0.5 | NO | NO | bb |

## Compound name: 13C4-PFHpA

Response Factor: 0.259934
RRF SD: 0.00549928 , Relative SD: 2.11565
Response type: Internal Std (Ref 37 ), Area * (IS Conc. / IS Area )
Curve type: RF


## Vista Analytical Laboratory

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## Compound name: 1802-PFHxS

Response Factor: 0.402115
RRF SD: 0.0114628, Relative SD: 2.85063
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | onse | Conc. \%Dev |  | Conc. Flag | CoD . CoD Flag $x=$ excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 , | 1 170727M1_6 | Standard | 12.500 | 3.47 | 3850.929 | 9307.117 | 5.172 | 12.9 | 2.9 | NO | NO | bb |
| 2. | 2 170727M1_7 | Standard | 12.500 | 3.47 | 3764.178 | 9382.290 | 5.015 | 12.5 | -0.2 | NO | NO | bb |
| $3,$ | 3 170727M1_8 | Standard | 12.500 | 3.47 | 3967.092 | 9569.128 | 5.182 | 12.9 | 3.1 | NO | NO | bb |
| 4 4-x ${ }^{\text {a }}$ | 4 170727M1_9 | Standard | 12.500 | 3.47 | 3867.868 | 9630.841 | 5.020 | 12.5 | -0.1 | NO | NO | bb |
| 5.4 mater | 5 170727M1_10 | Standard | 12.500 | 3.47 | 3971.926 | 9691.771 | 5.123 | 12.7 | 1.9 | NO | NO | bb |
| $6$ | 6 170727M1_11 | Standard | 12.500 | 3.48 | 3753.762 | 9802.307 | 4.787 | 11.9 | -4.8 | NO | NO | bb |
| 7 | 7 170727M1_12 | Standard | 12.500 | 3.47 | 3626.088 | 9340.884 | 4.852 | 12.1 | -3.5 | NO | NO | bb |
| 8 | 8 170727M1_13 | Standard | 12.500 | 3.48 | 3339.629 | 8249.938 | 5.060 | 12.6 | 0.7 | NO | NO | bb |

## Compound name: 13C2-PFOA

Response Factor: 1.04194
RRF SD: 0.027956, Relative SD: 2.68308
Response type: Internal Std ( Ref 39 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Cone | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag a- CoD | COD Flag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170727M1_6 | Standard | 12.500 | 3.60 | 59865.938 | 56873.047 | 13.158 | 12.6 | 1.0 | NO | NO | bb |
| 2 2. 4, | 2 170727M1_7 | Standard | 12.500 | 3.60 | 59919.949 | 56797.777 | 13.187 | 12.7 | 1.3 | NO | NO | bb |
|  | 3 170727M1_8 | Standard | 12.500 | 3.60 | 55415.613 | 53219.633 | 13.016 | 12.5 | -0.1 | NO | NO | bb |
| $4.4{ }^{4}$ | 4 170727M1_9 | Standard | 12.500 | 3.60 | 59868.074 | 57690.141 | 12.972 | 12.4 | -0.4 | NO | NO | bb |
|  | 5 170727M1_10 | Standard | 12.500 | 3.60 | 58695.875 | 59743.707 | 12.281 | 11.8 | -5.7 | NO | NO | bb |
| $6$ | 6 170727M1_11 | Standard | 12.500 | 3.60 | 61262.559 | 59019.414 | 12.975 | 12.5 | -0.4 | NO | NO | bb |
| 7.5 | 7 170727M1_12 | Standard | 12.500 | 3.60 | 54632.066 | 52202.523 | 13.082 | 12.6 | 0.4 | NO | NO | bb |
|  | 8 170727M1_13 | Standard | 12.500 | 3.60 | 51197.766 | 47323.363 | 13.523 | 13.0 | 3.8 | NO | NO | bb |

Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
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## Compound name: 13C5-PFNA

Response Factor: 0.79204
RRF SD: 0.030586, Relative SD: 3.86168
Response type: Internal Std (Ref 40 ), Area * (IS Conc. / IS Area)
Curve type: RF

| 4 | \# Name |  | +3) | $\begin{array}{r} \hline \text { Std. Conc } \\ 12.500 \end{array}$ | $\begin{gathered} \mathrm{RT} \\ 3.78 \end{gathered}$ | $\begin{array}{r} \text { Area } \\ 51114.008 \end{array}$ | $\begin{array}{r} \text { IS Area } \\ 61088.508 \end{array}$ | Response Conc \%Dev |  |  | Conc. Flag | CoD CoD Flag x=excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 , | 1 170727M1_6 | Standard |  |  |  |  |  | 10.459 | 13.2 | 5.6 | NO | NO | bb |
|  | 2 170727M1_7 | Standard |  | 12.500 | 3.78 | 51529.840 | 63082.246 | 10.211 | 12.9 | 3.1 | NO | NO | bb |
| 3 3, | 3 170727M1_8 | Standard |  | 12.500 | 3.78 | 46721.047 | 61854.789 | 9.442 | 11.9 | -4.6 | NO | NO | bb |
| 4 4. | 4 170727M1_9 | Standard |  | 12.500 | 3.78 | 50271.816 | 63851.328 | 9.842 | 12.4 | -0.6 | NO | NO | bb . |
| $5 \times 4$ | 5 170727M1_10 | Standard |  | 12.500 | 3.78 | 48716.914 | 63831.750 | 9.540 | 12.0 | -3.6 | NO | NO | bb |
| 6 . 4 | 6 170727M1_11 | Standard |  | 12.500 | 3.78 | 49942.039 | 61124.367 | 10.213 | 12.9 | 3.2 | NO | NO | bb |
| 7 \% We | 7 170727M1_12 | Standard |  | 12.500 | 3.78 | 45725.195 | 57150.492 | 10.001 | 12.6 | 1.0 | NO | NO | bb |
| 8 - | 8 170727M1_13 | Standard |  | 12.500 | 3.78 | 41697.215 | 54884.840 | 9.497 | 12.0 | -4.1 | NO | NO | bb |

## Compound name: 13C8-PFOSA

## Response Factor: 0.174678

RRF SD: 0.0164608 , Relative SD: 9.42349
Response type: Internal Std ( Ref 43 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name |  | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 170727M1_6 | Standard | 12.500 | 3.78 | 11862.194 | 60651.570 | 2.445 | 14.0 | 12.0 | NO |  | NO | bb |
| 2 | 2 170727M1_7 | Standard | 12.500 | 3.79 | 11221.438 | 63780.648 | 2.199 | 12.6 | 0.7 | NO |  | NO | bb |
| 3 | 3 170727M1_8 | Standard | 12.500 | 3.78 | 11168.887 | 58640.852 | 2.381 | 13.6 | 9.0 | NO |  | NO | bb |
| $4 \cdots 3$ | 4 170727M1_9 | Standard | 12.500 | 3.79 | 11376.144 | 63482.531 | 2.240 | 12.8 | 2.6 | NO |  | NO | bb |
| 5 | 5 170727M1_10 | Standard | 12.500 | 3.79 | 10985.451 | 63993.852 | 2.146 | 12.3 | -1.7 | NO |  | NO | bb |
| 6 6. | 6 170727M1_11 | Standard | 12.500 | 3.79 | 11154.32¢ | 61602.465 | 2.263 | 13.0 | 3.7 | NO |  | NO | bb |
| 7 me | 7 170727M1_12 | Standard | 12.500 | 3.79 | 9284.536 | 58621.656 | 1.980 | 11.3 | -9.3 | NO |  | NO | bb |
| 8 . | 8 170727M1_13 | Standard | 12.500 | 3.79 | 8012.283 | 55207.715 | 1.814 | 10.4 | -16.9 | NO |  | NO | bb |

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Dataset:
U:IQ4.PRO\results\170727M1\170727M1-CRV.qld
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## Compound name: 13C8-PFOS

Response Factor: 0.950628
RRF SD: 0.0413599, Relative SD: 4.3508
Response type: Internal Std (Ref 41 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | onc. | ev | Elag | COD F | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1{ }^{\text {a }}$, | 1 170727M1_6 | Standard | 12.500 | 3.83 | 9351.420 | 9521.391 | 12.277 | 12.9 | 3.3 | NO | NO | bb |
| $2{ }^{2}+$ | 2 170727M1_7 | Standard | 12.500 | 3.83 | 9058.424 | 9673.590 | 11.705 | 12.3 | -1.5 | NO | NO | bb |
| $3$ | 3 170727M1_8 | Standard | 12.500 | 3.83 | 9156.141 | 9654.983 | 11.854 | 12.5 | -0.2 | NO | NO | bb |
| 4.3 ar | 4 170727M1_9 | Standard | 12.500 | 3.83 | 8775.251 | 9669.445 | 11.344 | 11.9 | -4.5 | NO | NO | bb |
| 5 . | 5 170727M1_10 | Standard | 12.500 | 3.83 | 8595.392 | 9633.635 | 11.153 | 11.7 | -6.1 | NO | NO | bb |
| 6 - | 6 170727M1_11 | Standard | 12.500 | 3.83 | 9601.248 | 9505.756 | 12.626 | 13.3 | 6.3 | NO | NO | bb |
| 7 . | 7 170727M1_12 | Standard | 12.500 | 3.83 | 8226.863 | 8791.099 | 11.698 | 12.3 | -1.6 | NO | NO | bb |
| 8. | 8 170727M1_13 | Standard | 12.500 | 3.83 | 7877.385 | 7936.742 | 12.407 | 13.1 | 4.4 | NO | NO | bd |

## Compound name: 13C2-PFDA

Response Factor: 0.869042
RRF SD: 0.0152756, Relative SD: 1.75775
Response type: Internal Std (Ref 42 ), Area * (IS Conc. / IS Area)
Curve type: RF

| 10 | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | ne. Flag | D Fi | xcluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170727M1_6 | Standard | 12.500 | 3.94 | 52030.340 | 59640.039 | 10.905 | 12.5 | 0.4 | NO | NO | bb |
| 2 | 2 170727M1_7 | Standard | 12.500 | 3.95 | 57299.637 | 64993.883 | 11.020 | 12.7 | 1.4 | NO | NO | bb |
| $3 \times 1$ | 3 170727M1_8 | Standard | 12.500 | 3.95 | 54266.875 | 64060.777 | 10.589 | 12.2 | -2.5 | No | NO | bb |
| 4 | 4 170727M1_9 | Standard | 12.500 | 3.95 | 56721.223 | 64542.324 | 10.985 | 12.6 | 1.1 | NO | NO | bb |
| 5 \% 4 | 5 170727M1_10 | Standard | 12.500 | 3.95 | 60391.582 | 68173.781 | 11.073 | 12.7 | 1.9 | NO | NO | bb |
| +hite | 6 170727M1_11 | Standard | 12.500 | 3.95 | 56074.902 | 65514.582 | 10.699 | 12.3 | -1.5 | NO | No | bb |
|  | 7 170727M1_12 | Standard | 12.500 | 3.95 | 52224.242 | 61362.461 | 10.638 | 12.2 | -2.1 | NO | NO | bb |
|  | 8 170727M1_13 | Standard | 12.500 | 3.95 | 49584.195 | 56375.438 | 10.994 | 12.7 | 1.2 | NO | NO | bb |

Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
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Compound name: d3-N-MeFOSAA
Response Factor: 0.0129438
RRF SD: 0.000754884 , Relative SD: 5.832
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: d5-N-EtFOSAA

## Response Factor: 0.0127089

## RRF SD: 0.000726057, Relative SD: 5.71297

Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: RF


Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld

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## Compound name: 13C2-PFUnA

Response Factor: 0.928174
RRF SD: 0.0335518, Relative SD: 3.61482
Response type: Internal Std ( Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C2-PFDoA

Response Factor: 0.07109
RRF SD: 0.00354453, Relative SD: 4.98597
Response type: Internal Std (Ref 43 ), Area * ( IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | cr | D F | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1+2$ | 1 170727M1_6 | Standard | 12.500 | 4.26 | 4359.285 | 60651.570 | 0.898 | 12.6 | 1.1 | NO | NO | bb |
| 2 2. | 2 170727M1_7 | Standard | 12.500 | 4.27 | 4725.039 | 63780.648 | 0.926 | 13.0 | 4.2 | NO | NO | bb |
| 3. ${ }^{\text {a }}$, M4tes | 3 170727M1_8 | Standard | 12.500 | 4.27 | 4065.133 | 58640.852 | 0.867 | 12.2 | -2.5 | NO | NO | bb |
| $4 \times 1$ | 4 170727M1_9 | Standard | 12.500 | 4.27 | 4580.176 | 63482.531 | 0.902 | 12.7 | 1.5 | NO | NO | bd |
| 5 (xastme | 5 170727M1_10 | Standard | 12.500 | 4.27 | 4125.885 | 63993.852 | 0.806 | 11.3 | -9.3 | NO | NO | bb |
| 6 . | 6 170727M1_11 | Standard | 12.500 | 4.27 | 4254.241 | 61602.465 | 0.863 | 12.1 | -2.9 | NO | NO | bb |
|  | 7 170727M1_12 | Standard | 12.500 | 4.27 | 4195.593 | 58621.656 | 0.895 | 12.6 | 0.7 | NO | NO | bb |
| 8 8, 4 | 8 170727M1_13 | Standard | 12.500 | 4.27 | 4206.188 | 55207.715 | 0.952 | 13.4 | 7.2 | NO | NO | bb |

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## Compound name: 13C2-PFTeDA

Response Factor: 0.273202
RRF SD: 0.0426255, Relative SD: 15.6022
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C4-PFBA

Response Factor: 1
RRF SD: 8.3925e-017, Relative SD: $8.3925 \mathrm{e}-015$
Response type: Internal Std ( Ref 36 ), Area * ( IS Conc. / IS Area )
Curve type: RF

| Ctere | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 - | 1 170727M1_6 | Standard | 12.500 | 1.31 | 15685.795 | 15685.795 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 170727M1_7 | Standard | 12.500 | 1.32 | 19621.338 | 19621.338 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $3 \times$ | 3 170727M1_8 | Standard | 12.500 | 1.32 | 16595.234 | 16595.234 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 4 170727M1_9 | Standard | 12.500 | 1.32 | 20821.438 | 20821.438 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 170727M1_10 | Standard | 12.500 | 1.32 | 16931.240 | 16931.240 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 | 6 170727M1_11 | Standard | 12.500 | 1.32 | 19933.900 | 19933.900 | 12.500 | 12.5 | 0.0 | No | NO | bb |
| 7 | 7 170727M1_12 | Standard | 12.500 | 1.32 | 18930.279 | 18930.279 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 | 8 170727M1_13 | Standard | 12.500 | 1.32 | 16419.309 | 16419.309 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
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## Compound name: 13C5-PFHXA

Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std ( Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C3-PFHxS

Response Factor: 1
RRF SD: 8.3925e-017, Relative SD: $8.3925 \mathrm{e}-015$
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std, Cone | RT | * Area | IS Area | Response | Conc: | \%Dev | Conc. Flag mad | CoDFlag x=excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 170727M1_6 | Standard | 12.500 | 3.47 | 9307.117 | 9307.117 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 ) | 2 170727M1_7 | Standard | 12.500 | 3.47 | 9382.290 | 9382.290 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 - ${ }^{\text {a }}$ | 3 170727M1_8 | Standard | 12.500 | 3.47 | 9569.128 | 9569.128 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 , | 4 170727M1_9 | Standard | 12.500 | 3.48 | 9630.841 | 9630.841 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 170727M1_10 | Standard | 12.500 | 3.47 | 9691.771 | 9691.771 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 \% | 6 170727M1_11 | Standard | 12.500 | 3.47 | 9802.307 | 9802.307 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 . | 7 170727M1_12 | Standard | 12.500 | 3.47 | 9340.884 | 9340.884 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8. | 8 170727M1_13 | Standard | 12.500 | 3.47 | 8249.938 | 8249.938 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

## Vista Analytical Laboratory

Dataset: U:IQ4.PROIresults1170727M11170727M1-CRV.qld
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## Compound name: 13C8-PFOA

## Response Factor: 1

RRF SD: 1.18688e-016, Relative SD: 1.18688e-014
Response type: Internal Std ( Ref 39 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C9-PFNA

Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 40 ), Area * (IS Conc. / IS Area)
Curve type: RF

| +48 | \# Name | Type mer | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD $\quad$ CoD Flag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. ${ }^{\text {a }}$ | 1 170727M1_6 | Standard | 12.500 | 3.78 | 61088.508 | 61088.508 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2.4 | 2 170727M1_7 | Standard | 12.500 | 3.78 | 63082.246 | 63082.246 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3.24 | 3 170727M1_8 | Standard | 12.500 | 3.78 | 61854.789 | 61854.789 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4. | 4 170727M1_9 | Standard | 12.500 | 3.78 | 63851.328 | 63851.328 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $5$ | 5 170727M1_10 | Standard | 12.500 | 3.78 | 63831.750 | 63831.750 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 \% ${ }^{\text {a }}$ | 6 170727M1_11 | Standard | 12.500 | 3.78 | 61124.367 | 61124.367 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7. + He | 7 170727M1_12 | Standard | 12.500 | 3.78 | 57150.492 | 57150.492 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 \% | 8 170727M1_13 | Standard | 12.500 | 3.78 | 54884.840 | 54884.840 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

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## Compound name: 13C4-PFOS

Response Factor: 1
RRF SD: 8.3925e-017, Relative SD: 8.3925e-015
Response type: Internal Std ( Ref 41 ), Area * (IS Conc. / IS Area )
Curve type: RF


## Compound name: 13C6-PFDA

Response Factor: 1
RRF SD: 1.25887e-016, Relative SD: 1.25887e-014
Response type: Internal Std (Ref 42 ), Area * (IS Conc. / IS Area)
Curve type: RF

| T, ${ }^{\text {a }}$, | \# Name , wex Type |  | Std. Conc | RT | Area | 15 Area | Response | Conc. | Dev | nc. Fla | CoD CoDFlag | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 170727M1_6 | Standard | 12.500 | 3.94 | 59640.039 | 59640.039 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 2-4ter | 2 170727M1_7 | Standard | 12.500 | 3.95 | 64993.883 | 64993.883 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3. | 3 170727M1_8 | Standard | 12.500 | 3.95 | 64060.777 | 64060.777 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4. | 4 170727M1_9 | Standard | 12.500 | 3.95 | 64542.324 | 64542.324 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 S. ${ }^{\text {a }}$ | 5 170727M1_10 | Standard | 12.500 | 3.95 | 68173.781 | 68173.781 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 , | 6 170727M1_11 | Standard | 12.500 | 3.95 | 65514.582 | 65514.582 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 | 7 170727M1_12 | Standard | 12.500 | 3.95 | 61362.461 | 61362.461 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 , 2 y | 8 170727M1_13 | Standard | 12.500 | 3.95 | 56375.438 | 56375.438 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

## Vista Analytical Laboratory

## Dataset: <br> U:\Q4.PRO\results\170727M11170727M1-CRV.qld

Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time Printed: $\quad$ Friday, July 28, 2017 09:08:22 Pacific Daylight Time

## Compound name: 13C7-PFUnA

## Response Factor: 1

RRF SD: 1.02787e-016, Relative SD: 1.02787e-014
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area )
Curve type: RF

| 4 c | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Der | Conc. Flag | CoD CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4.tert | 1 170727M1_6 | Standard | 12.500 | 4.11 | 60651.570 | 60651.570 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2.84 | 2 170727M1_7 | Standard | 12.500 | 4.11 | 63780.648 | 63780.648 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 3 | 3 170727M1_8 | Standard | 12.500 | 4.11 | 58640.852 | 58640.852 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 4 170727M1_9 | Standard | 12.500 | 4.11 | 63482.531 | 63482.531 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 . | 5 170727M1_10 | Standard | 12.500 | 4.11 | 63993.852 | 63993.852 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $6$ | 6 170727M1_11 | Standard | 12.500 | 4.11 | 61602.465 | 61602.465 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $17$ | 7 170727M1_12 | Standard | 12.500 | 4.11 | 58621.656 | 58621.656 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 8, ${ }^{2}$ | 8 170727M1_13 | Standard | 12.500 | 4.11 | 55207.715 | 55207.715 | 12.500 | 12.5 | 0.0 | NO | NO | bb |


| Dataset: | Untitled |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 09:09:44 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:10:05 Pacific Daylight Time |

Method: U:IQ4.PROIMethDBIPFAS_L17_L14_7-27-17.mdb 28 Jul 2017 08:40:43 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

## Compound name: PFBA

| W Name | ID, wow | Date | Acq: Time |
| :---: | :---: | :---: | :---: |
|  | IPA | 27-Jul-17 | 11:37:28 |
| 2 2. . $170727 \mathrm{M} 1 \_6$ | ST170727M1-1 PFC CS-2 17G2704 | 27-Jul-17 | 11:48:12 |
| 3. . - , 170727M1_7 | ST170727M1-2 PFC CS-1 17G2705 | 27-Jul-17 | 11:58:50 |
| 4*:\& \% 170727M1_8 | ST170727M1-3 PFC CS0 17G2706 | 27-Jul-17 | 12:09:28 |
| 5 : - . $170727 \mathrm{M1} \mathrm{\_9}$ | ST170727M1-4 PFC CS1 17G2707 | 27-Jul-17 | 12:20:15 |
|  | ST170727M1-5 PFC CS2 17G2708 | 27-Jul-17 | 12:30:53 |
| 7 \% \% 170727M1_11 | ST170727M1-6 PFC CS3 17G2709 | 27-Jul-17 | 12:41:40 |
| 8. ${ }_{\text {c }}$ | ST170727M1-7 PFC CS4 17G2729 | 27-Jul-17 | 12:52:18 |
| 9. ${ }^{\text {a }}$ - 170727M1_13 | ST170727M1-8 PFC CS5 17G2710 | 27-Jul-17 | 13:02:56 |
| 10. \#, . 170727 M 1 14 | IPA | 27-Jul-17 | 13:13:35 |
| 11. | SS170727M1-1 PFC SSS 17G2703 | 27-Jul-17 | 13:24:13 |
| 12 ) $170727 \mathrm{M1} 16$ | IPA | 27-Jul-17 | 13:34:52 |

Vista Analytical Laboratory Q1
Dataset: U:IQ4.PROIresults1170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Method: U:IQ4.PROIMethDBIPFAS_L17_L14_7-27-17.mdb 28 Jul 2017 08:40:43
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Compound name: PFBA
Coefficient of Determination: $\mathbf{R}^{\wedge} 2=0.999016$
Calibration curve: $-0.000148745^{*} x^{\wedge} 2+1.144$ * $x+0.0934277$
Response type: Internal Std (Ref 20 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170727M1\170727M1-CRV.qid
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: $\quad$ Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: PFPeA
Correlation coefficient: $r=0.999743, r^{\wedge} 2=0.999486$
Calibration curve: 0.998566 * x + 0.0863273
Response type: Internal Std ( Ref 21 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFBS

Correlation coefficient: $\mathrm{r}=0.999583, \mathrm{r}^{\wedge} 2=0.999166$
Calibration curve: 1.87908 * x + 0.124036
Response type: Internal Std ( Ref 22 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report

Vista Analytical Laboratory Q1

| Dataset: | U:IQ4.PROlresults1170727M1\170727M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:06:47 Pacific Daylight Time |

Compound name: PFHxA
Correlation coefficient: $\mathrm{r}=0.999556, \mathrm{r}^{\wedge} 2=0.999111$
Calibration curve: 1.45287 * x + 0.152663
Response type: Internal Std (Ref 23 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170727M1\170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: PFHpA
Correlation coefficient: $\mathrm{r}=0.999612, \mathrm{r}^{\wedge} 2=0.999224$
Calibration curve: 1.23238 * $x+0.112392$
Response type: Internal Std (Ref 24 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: PFHxS
Correlation coefficient: $\mathrm{r}=0.999353, \mathrm{r}^{\wedge} 2=0.998707$
Calibration curve: 1.63949 * x + 0.27697
Response type: Internal Std (Ref 25 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: U:IQ4.PRO\results1170727M11170727M1-CRV.qld

Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: PFOA
Correlation coefficient: $\mathrm{r}=0.999168, \mathrm{r}^{\wedge} 2=0.998337$
Calibration curve: $0.97941^{*} x+0.169979$
Response type: Internal Std (Ref 26 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PROYresults\170727M11170727M1-CRV.qld

Last Altered:
Printed:

Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Friday, July 28, 2017 09:06:47 Pacific Daylight Time

## Compound name: PFHpS

Correlation coefficient: $\mathrm{r}=0.999393, \mathrm{r}^{\wedge} 2=0.998786$
Calibration curve: 0.0865329 * $x+0.00638428$
Response type: Internal Std ( Ref 26 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: PFNA
Correlation coefficient: $\mathrm{r}=0.999135, \mathrm{r}^{\wedge} 2=0.998270$
Calibration curve: 1.06404 * $x+0.151731$
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report

## Dataset: U:IQ4.PRO\results1170727M11170727M1-CRV.qld

Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time Printed: $\quad$ Friday, July 28, 2017 09:06:47 Pacific Daylight Time

## Compound name: PFOSA

Correlation coefficient: $\mathrm{r}=0.999394, \mathrm{r}^{\wedge} 2=0.998789$
Calibration curve: 1.06848 * x + 0.223419
Response type: Internal Std ( Ref 28 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: <br> U:IQ4.PRO\results\170727M11170727M1-CRV.qld

Last Altered:
Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

## Compound name: PFOS

Coefficient of Determination: $\mathbf{R}^{\wedge} 2=0.999093$
Calibration curve: $-0.000652924{ }^{*} x^{\wedge} 2+1.07342$ * $x+0.0667583$
Response type: Internal Std (Ref 29 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: PFDA
Correlation coefficient: $r=0.999716, r^{\wedge} 2=0.999431$
Calibration curve: 1.23228 * x + 0.147279
Response type: Internal Std ( Ref 30 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

Dataset:
U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: N-MeFOSAA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999665$
Calibration curve: $0.00022775^{*} x^{\wedge} 2+19.9472{ }^{*} x+0.0898127$
Response type: Internal Std (Ref 31 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: N-EtFOSAA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998879$
Calibration curve: $0.00266631^{*} x^{\wedge} 2+15.3353^{*} x+0.19972$
Response type: Internal Std (Ref 32 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report MassLynx MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
$\begin{array}{ll}\text { Last Altered: } & \text { Friday, July 28, } 2017 \text { 08:49:51 Pacific Daylight Time } \\ \text { Printed: } & \text { Friday, July 28, } 2017 \text { 09:06:47 Pacific Daylight Time }\end{array}$
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: PFUnA
Coefficient of Determination: $\mathbf{R}^{\wedge} 2=0.999664$
Calibration curve: -0.000726299 * $x^{\wedge} 2+0.648776$ * $x+0.0756752$
Response type: Internal Std (Ref 33 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report

## Vista Analytical Laboratory Q1

Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

## Compound name: PFDS

Coefficient of Determination: $R^{\wedge} 2=0.998629$
Calibration curve: $-1.32982 e-005$ * $x^{\wedge} 2+0.0672039$ * $x+0.00706292$
Response type: Internal Std ( Ref 33 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed:
Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: PFDoA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997867$
Calibration curve: 0.000108363 * $x^{\wedge} 2+0.920945$ * x + 0.119714
Response type: Internal Std (Ref 34 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset:
U:IQ4.PRO\results\170727M1\170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: PFTrDA
Correlation coefficient: $\mathrm{r}=0.999051, \mathrm{r}^{\wedge} 2=0.998103$
Calibration curve: $8.39255^{*} x+1.22744$
Response type: Internal Std (Ref 34 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:06:47 Pacific Daylight Time

Compound name: PFTeDA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999478$
Calibration curve: $-0.00104256{ }^{*} x^{\wedge} 2+1.20262{ }^{*} x+0.131178$
Response type: Internal Std (Ref 35 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV.qld |
| :--- | :--- |
|  | Last Altered: |
| Friday, July 28, 2017 08:49:51 Pacific Daylight Time |  |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Method: U:IQ4.PRO\MethDBIPFAS_L17_L14_7-27-17.mdb 28 Jul 2017 08:40:43 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51

Name: 170727M1_6, Date: 27-Jul-2017, Time: 11:48:12, ID: ST170727M1-1 PFC CS-2 17G2704, Description: PFC CS-2 17G2704


13C3-PFBA


13C3-PFPeA




13C2-PFHxA


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_6, Date: 27-Jul-2017, Time: 11:48:12, ID: ST170727M1-1 PFC CS-2 17G2704, Description: PFC CS-2 17G2704

## PFHPA



| Total PFHxS |  |  |  |
| :---: | :---: | :---: | :---: |
|  | F16:MRM of 2 channels,ES- |  |  |
|  |  |  | $398.9>79.6$ |
| 1007 | PFHxS | PFHxS | $1.381 \mathrm{e}+003$ |
|  | 3.47 | - 3.47 |  |
|  | 9.60 e1 | - 9.60e1 |  |
| \% - | 1381 | - 1381 |  |
|  | MMX | - MMX |  |
|  |  |  |  |



## 1802-PFHxS



## Total PFOA




13C2-PFOA


## PFHpS



13C2-PFOA


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

## Name: 170727M1_6, Date: 27-Jul-2017, Time: 11:48:12, ID: ST170727M1-1 PFC CS-2 17G2704, Description: PFC CS-2 17G2704

## PFNA




## 13C5-PFNA



## PFOSA



13C8-PFOSA


## Total PFOS



F30:MRM of 2 channels,ES-
$499>99$


13C8-PFOS
F33:MRM of 1 channel,ES-


PFDA



13C2-PFDA


| Dataset: | U:IQ4.PRO\results1170727M11170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

## Name: 170727M1_6, Date: 27-Jul-2017, Time: 11:48:12, ID: ST170727M1-1 PFC CS-2 17G2704, Description: PFC CS-2 17G2704


d3-N-MeFOSAA


## N-EtFOSAA



d5-N-EtFOSAA


## PFUnA



F43:MRM of 2 channels,ES$562.9>269$ $3.247 \mathrm{e}+003$


13C2-PFUnA


PFDS


13C2-PFUnA
F44:MRM of 1 channel,ES-


| Dataset: | U:IQ4.PRO\results1170727M1\170727M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_6, Date: 27-Jul-2017, Time: 11:48:12, ID: ST170727M1-1 PFC CS-2 17G2704, Description: PFC CS-2 17G2704



13C2-PFDoA


## PFTrDA



F57:MRM of 2 channels,ES$662.9>319$


13C2-PFDoA


## PFTeDA



13C2-PFTeDA
F59:MRM of 2 channels, ES.
$714.8>669.6$ $2.894 \mathrm{e}+005$


13C4-PFBA


13C5-PFHxA


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV. qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |



| Dataset: | U:IQ4.PRO\results\170727M1\170727M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_7, Date: 27-Jul-2017, Time: 11:58:50, ID: ST170727M1-2 PFC CS-1 17G2705, Description: PFC CS-1 17G2705


## 13C3-PFBA



PFPeA


## 13C3-PFPeA




13C3-PFBS


PFHxA


13C2-PFHxA
F9:MRM of 1 channel,ES-


Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_7, Date: 27-Jul-2017, Time: 11:58:50, ID: ST170727M1-2 PFC CS-1 17G2705, Description: PFC CS-1 17G2705


| Dataset: | U:IQ4.PRO\results1170727M11170727M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

## Name: 170727M1_7, Date: 27-Jul-2017, Time: 11:58:50, ID: ST170727M1-2 PFC CS-1 17G2705, Description: PFC CS-1 17 G2705




13C5-PFNA


## PFOSA




13C8-PFOSA


## Total PFOS




13C8-PFOS


## PFDA




13C2-PFDA


| Dataset: | U:IQ4.PRO\|results1170727M11170727M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_7, Date: 27-Jul-2017, Time: 11:58:50, ID: ST170727M1-2 PFC CS-1 17G2705, Description: PFC CS-1 17G2705


d3-N-MeFOSAA



d5-N-EtFOSAA


## PFUnA




13C2-PFUnA



13C2-PFUnA


Last Altered: Printed:

Friday, July 28, 2017 08:49:51 Pacific Daylight Time Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_7, Date: 27-Jul-2017, Time: 11:58:50, ID: ST170727M1-2 PFC CS-1 17G2705, Description: PFC CS-1 17G2705


13C2-PFDoA




13C2-PFDoA




13C2-PFTeDA



13C5-PFHxA

Dataset: U:IQ4.PROIresults|170727M11170727M1-CRV.qld

Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time

## Printed:

Friday, July 28, 2017 09:03:52 Pacific Daylight Time

## Name: 170727M1_7, Date: 27-Jul-2017, Time: 11:58:50, ID: ST170727M1-2 PFC CS-1 17G2705, Description: PFC CS-1 17G2705



## 13C4-PFOS




## 13C6-PFDA



## 13C8-PFOA <br> 

13C7-PFUnA


| Dataset: | U:IQ4.PRO\results1170727M1\170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_8, Date: 27-Jul-2017, Time: 12:09:28, ID: ST170727M1-3 PFC CS0 17G2706, Description: PFC CS0 17 G2706


13C3-PFBA


PFPeA


13C3-PFPeA


PFBS


13C3-PFBS


PFHxA


13C2-PFHxA


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV.qid |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

## Name: 170727M1_8, Date: 27-Jul-2017, Time: 12:09:28, ID: ST170727M1-3 PFC CS0 17G2706, Description: PFC CS0 17G2706

## PFHpA



F14:MRM of 2 channels,ES$363>169$


13C4-PFHpA


Total PFHxS



1802-PFHxS


## Total PFOA




13C2-PFOA


PFHpS


13C2-PFOA


Dataset: U:IQ4.PRO\results\170727M11170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed:
Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_8, Date: 27-Jul-2017, Time: 12:09:28, ID: ST170727M1-3 PFC CS0 17G2706, Description: PFC CS0 17 G2706


13C5-PFNA


## PFOSA



13C8-PFOSA


## Total PFOS



13C8-PFOS


PFDA


F35:MRM of 2 channels,ES-


13C2-PFDA


Dataset: U:\Q4.PRO\results\170727M1\170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: $\quad$ Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_8, Date: 27-Jul-2017, Time: 12:09:28, ID: ST170727M1-3 PFC CS0 17G2706, Description: PFC CS0 17 G2706


d3-N-MeFOSAA



d5-N-EtFOSAA


PFUnA



PFDS


13C2-PFUnA
F44:MRM of 1 channel,ES-


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_8, Date: 27-Jul-2017, Time: 12:09:28, ID: ST170727M1-3 PFC CS0 17G2706, Description: PFC CS0 17G2706


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_8, Date: 27-Jul-2017, Time: 12:09:28, ID: ST170727M1-3 PFC CS0 17G2706, Description: PFC CS0 17G2706





## 13C6-PFDA




## 13C9-PFNA

13C7-PFUnA



| Dataset: | U:IQ4.PRO\results1170727M1\170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_9, Date: 27-Jul-2017, Time: 12:20:15, ID: ST170727M1-4 PFC CS1 17G2707, Description: PFC CS1 17 G2707

Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: $\quad$ Friday, July 28, 2017 09:03:52 Pacific Daylight Time

## Name: 170727M1_9, Date: 27-Jul-2017, Time: 12:20:15, ID: ST170727M1-4 PFC CS1 17G2707, Description: PFC CS1 17 G2707

PFHpA


## Total PFHxS



1802-PFHxS



13C2-PFOA
F20:MRM of 1 channel,ES-


PFHpS


13C2-PFOA

Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: $\quad$ Friday, July 28, 2017 09:03:52 Pacific Daylight Time


| Dataset: | U:IQ4.PRO\results1170727M11170727M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

## Name: 170727M1_9, Date: 27-Jul-2017, Time: 12:20:15, ID: ST170727M1-4 PFC CS1 17G2707, Description: PFC CS1 17 G2707

## N-MeFOSAA





F47:MRM of 1 channel,ES
$573.3>419$ $1.538 \mathrm{e}+005$



d5-N-EtFOSAA
F49:MRM of 1 channel,ES-
$589.3>419$




13C2-PFUnA


PFDS


13C2-PFUnA


Vista Analytical Laboratory
Dataset: U:\Q4.PRO\results\170727M1\170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:03:52 Pacific Daylight Time


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_9, Date: 27-Jul-2017, Time: 12:20:15, ID: ST170727M1-4 PFC CS1 17G2707, Description: PFC CS1 17G2707


| Dataset: | U:IQ4.PRO\results\170727M11170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

## Name: 170727M1_10, Date: 27-Jul-2017, Time: 12:30:53, ID: ST170727M1-5 PFC CS2 17G2708, Description: PFC CS2 17G2708



## 13C3-PFBA



PFPeA


## 13C3-PFPeA



## PFBS



F6:MRM of 2 channels,ES-
$299>99$
$3.696 \mathrm{e}+004$


13C3-PFBS


PFHxA


F8:MRM of 2 channels,ES


13C2-PFHxA


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_10, Date: 27-Jul-2017, Time: 12:30:53, ID: ST170727M1-5 PFC CS2 17G2708, Description: PFC CS2 17G2708



13C4-PFHpA


Total PFHxS



1802-PFHxS


Total PFOA


13C2-PFOA


## PFHpS



F24:MRM of 4 channels,ES$448.9>79.9$


13C2-PFOA


| Dataset: | U:IQ4.PRO\results\170727M1\170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

## Name: 170727M1_10, Date: 27-Jul-2017, Time: 12:30:53, ID: ST170727M1-5 PFC CS2 17G2708, Description: PFC CS2 17G2708





## PFOSA




13C8-PFOSA


Total PFOS F30:MRM of 2 channels,ES-



13C8-PFOS


PFDA


13C2-PFDA


Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_10, Date: 27-Jul-2017, Time: 12:30:53, ID: ST170727M1-5 PFC CS2 17G2708, Description: PFC CS2 17G2708

d3-N-MeFOSAA


d5-N-EtFOSAA




13C2-PFUnA



13C2-PFUnA


Name: 170727M1_10, Date: 27-Jul-2017, Time: 12:30:53, ID: ST170727M1-5 PFC CS2 17G2708, Description: PFC CS2 17G2708



## 13C2-PFDoA





13C2-PFDoA


PFTeDA


13C2-PFTEDA
F59:MRM of 2 channels,ES
714.8 > 669.6
$1.952 e+005$


13C4-PFBA


13C5-PFHxA
F10:MRM of 1 channel,ES-
$\begin{array}{ll} \\ 3 C 5-P F H \times A & 18>272.9\end{array}$


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV. qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

## Name: 170727M1_10, Date: 27-Jul-2017, Time: 12:30:53, ID: ST170727M1-5 PFC CS2 17G2708, Description: PFC CS2 17G2708




13C2-PFTeDA


13C6-PFDA



13C9-PFNA


13C7-PFUnA


| Dataset: | U:IQ4.PRO\results\170727M11170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_11, Date: 27-Jul-2017, Time: 12:41:40, ID: ST170727M1-6 PFC CS3 17G2709, Description: PFC CS3 17G2709


13C3-PFBA



13C3-PFPeA


PFBS


F6:MRM of 2 channels,ES$29>99$


13C3-PFBS


PFHxA


F8:MRM of 2 channels,ES $313.2>119$


13C2-PFHxA


Last Altered:
Printed:
Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_11, Date: 27-Jul-2017, Time: 12:41:40, ID: ST170727M1-6 PFC CS3 17G2709, Description: PFC CS3 17G2709



13C4-PFHpA


## Total PFHxS



1802-PFHxS


## Total PFOA




13C2-PFOA


PFHpS


13C2-PFOA


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

## Name: 170727M1_11, Date: 27-Jul-2017, Time: 12:41:40, ID: ST170727M1-6 PFC CS3 17G2709, Description: PFC CS3 17G2709



## Name: 170727M1_11, Date: 27-Jul-2017, Time: 12:41:40, ID: ST170727M1-6 PFC CS3 17G2709, Description: PFC CS3 17G2709


d3-N-MeFOSAA



d5-N-EtFOSAA




13C2-PFUnA



13C2-PFUnA


## Dataset: U:IQ4.PROIresults1170727M11170727M1-CRV.qld

Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:03:52 Pacific Daylight Time

## Name: 170727M1_11, Date: 27-Jul-2017, Time: 12:41:40, ID: ST170727M1-6 PFC CS3 17G2709, Description: PFC CS3 17G2709



13C2-PFDoA


## PFTrDA




13C2-PFDoA
F52:MRM of 1 channel,ES-


## PFTeDA



13C2-PFTeDA
F59:MRM of 2 channels,ES-


13C4-PFBA


13C5-PFHxA


Vista Analytical Laboratory
Dataset: U:\Q4.PRO\results\170727M1\170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_11, Date: 27-Jul-2017, Time: 12:41:40, ID: ST170727M1-6 PFC CS3 17G2709, Description: PFC CS3 17G2709


Last Altered:
Printed:
Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_12, Date: 27-Jul-2017, Time: 12:52:18, ID: ST170727M1-7 PFC CS4 17G2729, Description: PFC CS4 17G2729


13C3-PFBA


13C3-PFPeA



F6:MRM of 2 channels,ES-
$299>99$ $2.960 \mathrm{e}+005$


13C3-PFBS


PFHxA


F8:MRM of 2 channels,ES
$313.2>119$


13C2-PFHxA


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_12, Date: 27-Jul-2017, Time: 12:52:18, ID: ST170727M1-7 PFC CS4 17G2729, Description: PFC CS4 17G2729


#### Abstract

PFHpA 


F14:MRM of 2 channels,ES
$363>169$


13C4-PFHpA


## Total PFHxS



1802-PFHxS


Total PFOA



13C2-PFOA


PFHpS


13C2-PFOA


Dataset:
U:IQ4.PROIresultsI170727M1\170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:03:52 Pacific Daylight Time

## Name: 170727M1_12, Date: 27-Jul-2017, Time: 12:52:18, ID: ST170727M1-7 PFC CS4 17G2729, Description: PFC CS4 17G2729

## PFNA




13C5-PFNA




13C8-PFOSA




## 13C8-PFOS



## PFDA



13C2-PFDA


| Dataset: | U:IQ4.PROIresults1170727M11170727M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_12, Date: 27-Jul-2017, Time: 12:52:18, ID: ST170727M1-7 PFC CS4 17G2729, Description: PFC CS4 17G2729

 d3-N-MeFOSAA



d5-N-EtFOSAA


## PFUnA



13C2-PFUnA


13C2-PFUnA


Last Altered:
Printed:
Friday, July 28, 2017 08:49:51 Pacific Daylight Time Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_12, Date: 27-Jul-2017, Time: 12:52:18, ID: ST170727M1-7 PFC CS4 17G2729, Description: PFC CS4 17G2729



13C2-PFDoA





## PFTeDA



13C2-PFTeDA



13C5-PFHxA


| Dataset: | U:IQ4.PRO\results1170727M11170727M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_12, Date: 27-Jul-2017, Time: 12:52:18, ID: ST170727M1-7 PFC CS4 17G2729, Description: PFC CS4 17G2729


## 13C4-PFOS



## 13C2-PFTeDA



13C6-PFDA


13C8-PFOA


13C9-PFNA


13C7-PFUnA


Dataset: U:\Q4.PRO\results\170727M1\170727M1-CRV.qld
Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_13, Date: 27-Jul-2017, Time: 13:02:56, ID: ST170727M1-8 PFC CS5 17G2710, Description: PFC CS5 17 G2710


13C3-PFBA



13C3-PFPeA



13C3-PFBS



13C2-PFHxA

Printed: $\quad$ Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_13, Date: 27-Jul-2017, Time: 13:02:56, ID: ST170727M1-8 PFC CS5 17G2710, Description: PFC CS5 17 G2710

## PFHpA


F14:MRM of 2 channels,ES





1802-PFHxS


## Total PFOA




13C2-PFOA


## PFHpS



F24:MRM of 4 channels,ES-
448.9 > 79.9


13C2-PFOA


| Dataset: | U:IQ4.PROlresults\170727M11170727M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 08:49:51 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:03:52 Pacific Daylight Time |

Name: 170727M1_13, Date: 27-Jul-2017, Time: 13:02:56, ID: ST170727M1-8 PFC CS5 17G2710, Description: PFC CS5 17 G2710


13C5-PFNA


## PFOSA



F28:MRM of 2 channels,ES-


13C8-PFOSA


## Total PFOS

$\begin{array}{r}\text { F30:MRM of } 2 \text { channels,ES- } \\ 499>79.9 \\ 7.585 \mathrm{e}+005 \\ \text { PFOS } \\ 3.83 \\ 100 \\ \hline\end{array}$
F30:MRM of 2 channels,ES-


13C8-PFOS


PFDA


13C2-PFDA


## Dataset: U:IQ4.PRO\results\170727M1\170727M1-CRV.qld

Last Altered: Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:03:52 Pacific Daylight Time

Name: 170727M1_13, Date: 27-Jul-2017, Time: 13:02:56, ID: ST170727M1-8 PFC CS5 17G2710, Description: PFC CS5 17 G2710

d3-N-MeFOSAA



F48:MRM of 2 channels,ES $584.2>483$ $9.597 e+004$

d5-N-EtFOSAA



13C2-PFUnA



13C2-PFUnA


Friday, July 28, 2017 08:49:51 Pacific Daylight Time
Printed:


Name: 170727M1_13, Date: 27-Jul-2017, Time: 13:02:56, ID: ST170727M1-8 PFC CS5 17G2710, Description: PFC CS5 17G2710


13C2-PFDoA


## PFTrDA



13C2-PFDoA


## PFTeDA



13C2-PFTeDA
F59:MRM of 2 channels,ES-


13C4-PFBA


## 13C5-PFHxA




Method: U:IQ4.PROIMethDBIPFAS_L17_L14_7-27-17.mdb 28 Jul 2017 08:40:43 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_15, Date: 27-Jul-2017, Time: 13:24:13, ID: SS170727M1-1 PFC SSS 17G2703, Description: PFC SSS 17 G2703


Dataset
U:IQ4.PRO\results\170727M11170727M1-15.qld
Last Altered:
Friday, July 28, 2017 09:19:12 Pacific Daylight Time
Printed: Friday, July 28, 2017 09:20:31 Pacific Daylight Time

Name: 170727M1_15, Date: 27-Jul-2017, Time: 13:24:13, ID: SS170727M1-1 PFC SSS 17G2703, Description: PFC SSS 17G2703

|  | \# Name | Trace | Area | IS Resp | RRF | Wt./Vol | RT | Conc | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32 | 32 d5-N-EtFOSAA | $589.3>419$ | 9591.058 | 59968.848 | 0.013 | 1.000 | 4.04 | 157.30 | 96.80 |
| $33:+$ | 33 13C2-PFUnA | $565>519.8$ | 53532.066 | 59968.848 | 0.928 | 1.000 | 4.12 | 12.02 | 96.17 |
| 34 | 34 13C2-PFDoA | $615>569.7$ | 4293.898 | 59968.848 | 0.071 | 1.000 | 4.28 | 12.59 | 100.72 |
| 35 | 35 13C2-PFTeDA | $714.8>669.6$ | 14573.548 | 59968.848 | 0.273 | 1.000 | 4.62 | 11.12 | 88.95 |
| 36 | 36 13C4-PFBA | $217>171.8$ | 19378.115 | 19378.115 | 1.000 | 1.000 | 1.32 | 12.50 | 100.00 |
| 37. | 37 13C5-PFHxA | $318>272.9$ | 65249.512 | 65249.512 | 1.000 | 1.000 | 3.14 | 5.00 | 100.00 |
| 38 . | 38 13C3-PFHxS | $401.9>79.9$ | 9129.876 | 9129.876 | 1.000 | 1.000 | 3.47 | 12.50 | 100.00 |
| 39 \% ${ }^{\text {a }}$ | 39 13C8-PFOA | $421.3>376$ | 55490.434 | 55490.434 | 1.000 | 1.000 | 3.60 | 12.50 | 100.00 |
| 40. | 40 13C9-PFNA | $472.2>426.9$ | 60366.590 | 60366.590 | 1.000 | 1.000 | 3.79 | 12.50 | 100.00 |
| 41. | 41 13C4-PFOS | $503>79.9$ | 9061.870 | 9061.870 | 1.000 | 1.000 | 3.84 | 12.50 | 100.00 |
| 42 , \% | 42 13C6-PFDA | $519.1>473.7$ | 64909.809 | 64909.809 | 1.000 | 1.000 | 3.95 | 12.50 | 100.00 |
| 43 , | 43 13C7-PFUnA | $570.1>524.8$ | 59968.848 | 59968.848 | 1.000 | 1.000 | 4.12 | 12.50 | 100.00 |

## Method: U:IQ4.PRO|MethDBIPFAS_L17_L14_7-27-17.mdb 28 Jul 2017 08:40:43

Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-27-17-L14_L17.cdb 28 Jul 2017 08:49:51
Name: 170727M1_15, Date: 27-Jul-2017, Time: 13:24:13, ID: SS170727M1-1 PFC SSS 17G2703, Description: PFC SSS 17G2703


13C3-PFBA



13C3-PFPeA


## PFBS



F6:MRM of 2 channels,ES$299>99$


13C3-PFBS


## PFHxA



13C2-PFHxA


| Dataset: | U:IQ4.PRO\results1170727M11170727M1-15.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 09:19:12 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:20:01 Pacific Daylight Time |

Name: 170727M1_15, Date: 27-Jul-2017, Time: 13:24:13, ID: SS170727M1-1 PFC SSS 17G2703, Description: PFC SSS 17 G2703

## PFHpA






## Total PFHxS



## Total PFOA




13C2-PFOA


## PFHpS



13C2-PFOA


| Dataset: | U:IQ4.PRO\results1170727M1\170727M1-15.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 09:19:12 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:20:01 Pacific Daylight Time |

Name: 170727M1_15, Date: 27-Jul-2017, Time: 13:24:13, ID: SS170727M1-1 PFC SSS 17G2703, Description: PFC SSS 17G2703



## 13C5-PFNA



## PFOSA




13C8-PFOSA


## Total PFOS




13C8-PFOS


PFDA


F35:MRM of 2 channels,ES


13C2-PFDA


## Dataset: U:IQ4.PROIresults|170727M11170727M1-15.qld

Last Altered: Friday, July 28, 2017 09:19:12 Pacific Daylight Time
Printed:


## Name: 170727M1_15, Date: 27-Jul-2017, Time: 13:24:13, ID: SS170727M1-1 PFC SSS 17G2703, Description: PFC SSS 17 G2703



d3-N-MeFOSAA



F48:MRM of 2 channels,ES$584.2>483$

d5-N-EtFOSAA



F43:MRM of 2 channels,ES-
562.9 > 269 $1.192 \mathrm{e}+005$


13C2-PFUnA




13C2-PFUnA


| Dataset: | U:IQ4.PRO\results1170727M1\170727M1-15.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, July 28, 2017 09:19:12 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:20:01 Pacific Daylight Time |

Name: 170727M1_15, Date: 27-Jul-2017, Time: 13:24:13, ID: SS170727M1-1 PFC SSS 17G2703, Description: PFC SSS 17G2703


13C2-PFDoA


## PFTrDA



57:MRM of 2 channels,ES-


13C2-PFDoA
F52:MRM of 1 channel,ES$615>569.7$



13C2-PFTeDA
F59:MRM of 2 channels,ES-
F59:MRM of 2 channels,ES-
$714.8>669.6$


13C4-PFBA


## 13C5-PFHxA



| Dataset: | U:IQ4.PROIresults\170727M11170727M1-15.qld |
| :--- | :--- |
| Last Altered: | Friday, July 28, 2017 09:19:12 Pacific Daylight Time |
| Printed: | Friday, July 28, 2017 09:20:01 Pacific Daylight Time |



Dataset:
U:IQ4.PRO\results\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

Method: U:IQ4.PROIMethDBIPFAS_L17_L14_7-27-17.mdb 28 Jul 2017 08:40:43
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

## Compound name: PFBA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999678$
Calibration curve: $0.000110804^{*} x^{\wedge} 2+1.07999$ * $x+0.11163$
Response type: Internal Std (Ref 20 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


## Compound name: PFPeA

Correlation coefficient: $\mathrm{r}=0.999801, \mathrm{r}^{2} 2=0.999602$
Calibration curve: 0.958373 * $x+0.0576289$
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: $1 / x$, Axis trans: None


Work Order 1700871

Vista Analytical Laboratory
Dataset:
U:IQ4.PRO\results\170728M2\170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: PFBS

Correlation coefficient: $\mathrm{r}=0.999861, \mathrm{r}^{\wedge} 2=0.999721$
Calibration curve: 1.85784 * x + - 0.00404936
Response type: Internal Std (Ref 22 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std.Conc | RT | \% ${ }^{\text {and }}$ Area | IS Area | ponse | , | , | , | COD | * | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1$ | 1 170728M2_2 | Standard | 0.250 | 2.90 | 124.236 | 3725.665 | 0.417 | 0.2 | -9.4 | NO | 1.000 | NO | bb |
| 2.4 | 2 170728M2_3 | Standard | 0.500 | 2.89 | 287.609 | 3680.041 | 0.977 | 0.5 | 5.6 | NO | 1.000 | NO | bb |
| $3$ | 3 170728M2_4 | Standard | 1.000 | 2.90 | 605.269 | 3805.429 | 1.988 | 1.1 | 7.2 | NO | 1.000 | NO | bb |
| $4$ | 4 170728M2_5 | Standard | 2.000 | 2.89 | 650.990 | 2141.663 | 3.800 | 2.0 | 2.4 | NO | 1.000 | NO | bb |
| 5. | 5 170728M2_6 | Standard | 5.000 | 2.90 | 2677.018 | 3529.564 | 9.481 | 5.1 | 2.1 | NO | 1.000 | NO | bb |
| $6$ | $6170728 \mathrm{M} 2 \_7$ | Standard | 10.000 | 2.89 | 5207.783 | 3732.698 | 17.440 | 9.4 | -6.1 | NO | 1.000 | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 50.000 | 2.90 | 25941.150 | 3533.129 | 91.778 | 49.4 | -1.2 | NO | 1.000 | NO | bb |
| $8$ | 8 170728M2_9 | Standard | 100.000 | 2.90 | 52001.789 | 3559.104 | 182.637 | 98.3 | -1.7 | NO | 1.000 | NO | bb |
| $9$ | 9 170728M2_10 | Standard | 250.000 | 2.90 | 109519.203 | 2916.369 | 469.416 | 252.7 | 1.1 | NO | 1.000 | NO | bb |

## Compound name: PFHxA

Correlation coefficient: $\mathrm{r}=0.999860, \mathrm{r} \wedge=0.999719$
Calibration curve: $1.39516{ }^{*} x+0.138496$
Response type: Internal Std (Ref 23 ), Area * IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\170728M2\170728M2-CRV.qld
Last Altered: $\quad$ Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: PFHpA

Correlation coefficient: $\mathrm{r}=0.999957, \mathrm{r}^{\wedge} 2=0.999914$
Calibration curve: 1.17847 * $x+0.0681471$
Response type: Internal Std (Ref 24 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | $R \mathrm{R}$ | Area | IS Area | Response | Conc. | Dev | \% | COD | D F | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 nrumax | 1 170728M2_2 | Standard | 0.250 | 3.40 | 1204.282 | 43061.438 | 0.350 | 0.2 | -4.5 | NO | 1.000 | NO | bb |
| 2 2rita | 2 170728M2_3 | Standard | 0.500 | 3.40 | 2014.244 | 38433.738 | 0.655 | 0.5 | -0.4 | NO | 1.000 | NO | bb |
| $3$ | 3 170728M2_4 | Standard | 1.000 | 3.40 | 3878.673 | 40909.711 | 1.185 | 0.9 | -5.2 | NO | 1.000 | NO | bb |
| $4$ | 4 170728M2_5 | Standard | 2.000 | 3.40 | 4962.255 | 24182.768 | 2.565 | 2.1 | 5.9 | NO | 1.000 | NO | bb |
|  | 5 170728M2_6 | Standard | 5.000 | 3.41 | 19800.123 | 39156.566 | 6.321 | 5.3 | 6.1 | NO | 1.000 | NO | bb |
| 6 | $6170728 \mathrm{M} 2 \_7$ | Standard | 10.000 | 3.41 | 37646.004 | 40354.555 | 11.661 | 9.8 | -1.6 | NO | 1.000 | NO | bb |
| $17$ | 7 170728M2_8 | Standard | 50.000 | 3.41 | 183598.906 | 38873.176 | 59.038 | 50.0 | 0.1 | NO | 1.000 | NO | bb |
| $8$ | 8 170728M2_9 | Standard | 100.000 | 3.41 | 381024.406 | 40612.637 | 117.274 | 99.5 | -0.5 | NO | 1.000 | NO | bb |
| 9. 9 | 9 170728M2_10 | Standard | 250.000 | 3.41 | 849145.438 | 35974.605 | 295.050 | 250.3 | 0.1 | NO | 1.000 | NO | bb |

## Compound name: PFHxS

Correlation coefficient: $\mathrm{r}=0.999604, \mathrm{r}^{\wedge} 2=0.999209$
Calibration curve: 1.66642 * $x+0.0527668$
Response type: Internal Std (Ref 25 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name |  | W, ma | Std. Conc |  | Area173.816 | IS Area | Response 0.588 | Conc. \%Dev Conc.Flag CoD CoD Flag x=excluded |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 170728M2_2 | Standard |  | 0.250 | 3.48 |  |  |  | 0.3 | 28.5 | NO | 0.999 | NO | MM |
| 2 | 2 170728M2_3 | Standard |  | 0.500 | 3.48 | 211.907 | 3400.828 | 0.779 | 0.4 | -12.9 | NO | 0.999 | NO | MM |
| $3$ | 3 170728M2_4 | Standard |  | 1.000 | 3.47 | 425.566 | 3811.290 | 1.396 | 0.8 | -19.4 | NO | 0.999 | NO | MM |
| 4 W | 4 170728M2_5 | Standard |  | 2.000 | 3.47 | 583.868 | 1965.832 | 3.713 | 2.2 | 9.8 | NO | 0.999 | NO | bb |
| 5. | 5 170728M2_6 | Standard |  | 5.000 | 3.47 | 2141.738 | 3173.995 | 8.435 | 5.0 | 0.6 | NO | 0.999 | NO | bb |
| $6$ | $6170728 \mathrm{M} 2 \_7$ | Standard |  | 10.000 | 3.48 | 4660.597 | 3599.749 | 16.184 | 9.7 | -3.2 | NO | 0.999 | NO | bb |
| $17$ | 7 170728M2_8 | Standard |  | 50.000 | 3.48 | 23173.209 | 3541.580 | 81.790 | 49.0 | -1.9 | NO | 0.999 | NO | bb |
| $8$ | $8170728 \mathrm{M} 2 \_9$ | Standard |  | 100.000 | 3.48 | 46227.219 | 3591.229 | 160.903 | 96.5 | -3.5 | NO | 0.999 | NO | bb |
| 9. | 9 170728M2_10 | Standard |  | 250.000 | 3.48 | 96280.008 | 2835.098 | 424.500 | 254.7 | 1.9 | NO | 0.999 | NO | bb |

Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results1170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: PFOA

Correlation coefficient: $\mathrm{r}=0.999602, \mathrm{r}^{\wedge} 2=0.999203$
Calibration curve: 0.972567 * $x+0.119743$
Response type: Internal Std ( Ref 26 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFHpS

Correlation coefficient: $\mathrm{r}=0.999698, \mathrm{r}^{\wedge} 2=0.999396$
Calibration curve: $0.0834866{ }^{*} x+0.000361382$
Response type: Internal Std ( Ref 26 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | WISArea | Response | Conc. | \%Dev | Conc. | Cob | CoD Flag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| + $)^{2}$ | 1 170728M2_2 | Standard | 0.250 | 3.66 | 129.349 | 67432.422 | 0.024 | 0.3 | 13.1 | NO | 0.999 | NO | bb |
| $2$ | 2 170728M2_3 | Standard | 0.500 | 3.66 | 184.534 | 69121.398 | 0.033 | 0.4 | -20.9 | NO | 0.999 | NO | bb |
| 3 | 3 170728M2_4 | Standard | 1.000 | 3.65 | 440.810 | 65175.223 | 0.085 | 1.0 | 0.8 | NO | 0.999 | NO | MM |
| 4 | 4 170728M2_5 | Standard | 2.000 | 3.67 | 446.333 | 37231.426 | 0.150 | 1.8 | -10.5 | NO | 0.999 | NO | bb |
| 5 | 5 170728M2_6 | Standard | 5.000 | 3.66 | 2501.044 | 65033.895 | 0.481 | 5.8 | 15.1 | NO | 0.999 | NO | bb |
| $6$ | $6170728 \mathrm{M} 2 \_7$ | Standard | 10.000 | 3.67 | 4417.773 | 65066.762 | 0.849 | 10.2 | 1.6 | NO | 0.999 | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 50.000 | 3.67 | 22320.723 | 65231.879 | 4.277 | 51.2 | 2.5 | NO | 0.999 | NO | bb |
| 8 | 8 170728M2_9 | Standard | 100.000 | 3.67 | 43490.797 | 64313.508 | 8.453 | 101.2 | 1.2 | NO | 0.999 | NO | bb |
| 9.4 | 9 170728M2_10 | Standard | 250.000 | 3.67 | 88324.172 | 53563.473 | 20.612 | 246.9 | -1.2 | NO | 0.999 | NO | bb |

## Vista Analytical Laboratory

Dataset:
U:IQ4.PRO\results\170728M21170728M2-CRV.qld
Last Altered: $\quad$ Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: PFNA

Correlation coefficient: $\mathrm{r}=0.999774, \mathrm{r}^{\wedge} 2=0.999549$
Calibration curve: 1.0688 * x + 0.0838738
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFOSA

Correlation coefficient: $\mathrm{r}=0.998852, \mathrm{r} 2=0.997705$
Calibration curve: 1.09922 * $x+0.0380461$
Response type: Internal Std (Ref 28 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | Cob Flag | x=excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4. | 1 170728M2_2 | Standard | 0.250 | 3.79 | 212.952 | 7534.616 | 0.353 | 0.3 | 14.7 | NO | 0.998 | NO | bb |
| 2 | 2 170728M2_3 | Standard | 0.500 | 3.79 | 402.743 | 7838.506 | 0.642 | 0.5 | 9.9 | NO | 0.998 | NO | bb |
| 3 LH | 3 170728M2_4 | Standard | 1.000 | 3.78 | 641.875 | 7863.147 | 1.020 | 0.9 | -10.6 | NO | 0.998 | NO | bb |
| 4 4TMM. | 4 170728M2_5 | Standard | 2.000 | 3.79 | 796.114 | 4067.927 | 2.446 | 2.2 | 9.5 | NO | 0.998 | NO | bb |
| 5.4* | 5 170728M2_6 | Standard | 5.000 | 3.79 | 3167.917 | 8322.412 | 4.758 | 4.3 | -14.1 | NO | 0.998 | NO | bb |
| $6$ | 6 170728M2_7 | Standard | 10.000 | 3.80 | 6695.482 | 7844.739 | 10.669 | 9.7 | -3.3 | NO | 0.998 | NO | bb |
| $17$ | 7 170728M2_8 | Standard | 50.000 | 3.80 | 31041.506 | 7294.865 | 53.191 | 48.4 | -3.3 | NO | 0.998 | NO | bb |
| $8$ | 8 170728M2_9 | Standard | 100.000 | 3.79 | 58226.086 | 7074.365 | 102.882 | 93.6 | -6.4 | NO | 0.998 | NO | bb |
| $9: 3$ | 9 170728M2_10 | Standard | 250.000 | 3.79 | 126557.727 | 5557.022 | 284.680 | 258.9 | 3.6 | NO | 0.998 | NO | bb |

Vista Analytical Laboratory
Dataset:
U:IQ4.PRO\results\170728M2\170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed:
Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: PFOS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999381$
Calibration curve: $-8.2411 \mathrm{e}-005{ }^{*} x^{\wedge} 2+0.991329$ * $x+0.038537$
Response type: Internal Std (Ref 29 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


## Compound name: PFDA

Correlation coefficient: $\mathrm{r}=0.999404, \mathrm{r}^{\wedge} 2=0.998807$
Calibration curve: 1.20688 * $x+0.163006$
Response type: Internal Std (Ref 30 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | $\cdots$ Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | c. F | CoD |  | $x=e x c l u d e d$, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 170728M2_2 | Standard | 0.250 | 3.95 | 1834.598 | 60003.141 | 0.382 | 0.2 | -27.4 | NO | 0.999 | NO | bb |
| $2=4$ | 2 170728M2_3 | Standard | 0.500 | 3.95 | 3284.270 | 55549.078 | 0.739 | 0.5 | -4.5 | NO | 0.999 | NO | bb |
| $3$ | 3 170728M2_4 | Standard | 1.000 | 3.95 | 6330.603 | 53618.211 | 1.476 | 1.1 | 8.8 | NO | 0.999 | NO | bb |
| $14$ | 4 170728M2_5 | Standard | 2.000 | 3.95 | 6936.152 | 30851.922 | 2.810 | 2.2 | 9.7 | NO | 0.999 | NO | bb |
| 5 | $5170728 \mathrm{M} 2 \_6$ | Standard | 5.000 | 3.95 | 31825.025 | 59808.203 | 6.651 | 5.4 | 7.5 | NO | 0.999 | NO | bb |
| $6$ | $6170728 \mathrm{M} 2 \_7$ | Standard | 10.000 | 3.96 | 63066.832 | 64638.613 | 12.196 | 10.0 | -0.3 | NO | 0.999 | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 50.000 | 3.96 | 307105.938 | 58663.914 | 65.438 | 54.1 | 8.2 | NO | 0.999 | NO | bb |
| $8$ | 8 170728M2_9 | Standard | 100.000 | 3.96 | 539413.000 | 55892.832 | 120.636 | 99.8 | -0.2 | NO | 0.999 | NO | bb |
| 9 W*s | 9 170728M2_10 | Standard | 250.000 | 3.96 | 1346063.625 | 56744.188 | 296.520 | 245.6 | -1.8 | NO | 0.999 | NO | bb |

Dataset: U:IQ4.PROIresults1170728M21170728M2-CRV.ald
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: N-MeFOSAA

Coefficient of Determination: $\mathbf{R}^{\wedge} 2=0.999878$
Calibration curve: $-0.00407341{ }^{*} x^{\wedge} 2+19.807{ }^{*} x+-0.260375$
Response type: Internal Std (Ref 31 ), 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. Fir | CoD | D F | cla |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1\%24xite | 1 170728M2_2 | Standard | 0.250 | 3.96 | 435.997 | 12883.249 | 5.499 | 0.3 | 16.3 | NO | 1.000 | NO | bd |
| 2 20, | 2 170728M2_3 | Standard | 0.500 | 3.98 | 741.759 | 12942.593 | 9.313 | 0.5 | -3.3 | NO | 1.000 | NO | bb |
| $3$ | 3 170728M2_4 | Standard | 1.000 | 3.98 | 1500.287 | 13619.269 | 17.901 | 0.9 | -8.3 | NO | 1.000 | NO | bb |
| 4 , $4^{3}$ | 4 170728M2_5 | Standard | 2.000 | 3.98 | 1869.939 | 7508.003 | 40.472 | 2.1 | 2.9 | NO | 1.000 | NO | bb |
|  | $5170728 \mathrm{M} 2 \_6$ | Standard | 5.000 | 3.98 | 8162.221 | 14192.388 | 93.456 | 4.7 | -5.3 | NO | 1.000 | NO | bb |
| 6 6, ${ }^{2}$ | 6170728 M 2 _7 | Standard | 10.000 | 3.98 | 16022.469 | 13644.029 | 190.827 | 9.7 | -3.3 | NO | 1.000 | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 50.000 | 3.99 | 73798.828 | 12178.927 | 984.677 | 50.2 | 0.5 | NO | 1.000 | NO | bb |
|  | 8 170728M2_9 | Standard | 100.000 | 3.99 | 144718.797 | 12044.903 | 1952.428 | 100.7 | 0.7 | NO | 1.000 | NO | bb |
|  | 9170728 M 2 _10 | Standard | 250.000 | 3.99 | 311738.625 | 10798.391 | 4691.211 | 249.7 | -0.1 | NO | 1.000 | NO | bb |

## Compound name: N-ETFOSAA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999787$
Calibration curve: $-0.00107779{ }^{*} x^{\wedge} 2+15.2465{ }^{*} x+0.807358$
Response type: Internal Std ( Ref 32 ), 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 | Response | Coric. | \%Dev | nc. Flag | CoD | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-4tse | 1 170728M2_2 | Standard | 0.250 | 4.04 | 379.553 | 13002.753 | 4.743 | 0.3 | 3.3 | NO | 1.000 | NO | bb |
| 2 | 2 170728M2_3 | Standard | 0.500 | 4.04 | 831.407 | 13332.326 | 10.134 | 0.6 | 22.3 | NO | 1.000 | NO | bb |
| 3 | 3 170728M2_4 | Standard | 1.000 | 4.04 | 1236.473 | 13734.974 | 14.629 | 0.9 | -9.3 | NO | 1.000 | NO | bb |
| 4 | 4 170728M2_5 | Standard | 2.000 | 4.04 | 1479.109 | 7359.929 | 32.657 | 2.1 | 4.5 | NO | 1.000 | NO | bb |
| 5 | $5170728 \mathrm{M} 2 \_6$ | Standard | 5.000 | 4.05 | 6354.800 | 13694.013 | 75.409 | 4.9 | -2.1 | NO | 1.000 | NO | bb |
| $6$ | $6170728 \mathrm{M} 2 \_7$ | Standard | 10.000 | 4.05 | 12531.979 | 12997.170 | 156.684 | 10.2 | 2.3 | NO | 1.000 | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 50.000 | 4.05 | 60396.695 | 12723.811 | 771.346 | 50.7 | 1.4 | NO | 1.000 | NO | bb |
| 8 | 8170728 M 2 _9 | Standard | 100.000 | 4.05 | 113763.313 | 12372.299 | 1494.188 | 98.6 | -1.4 | NO | 1.000 | NO | bb |
| $9 \times 4$ | $9170728 \mathrm{M} 2 \_10$ | Standard | 250.000 | 4.05 | 260195.766 | 11272.279 | 3750.955 | 250.4 | 0.2 | NO | 1.000 | NO | bb |

Vista Analytical Laboratory
Dataset: U:IQ4.PROIresults\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: PFUnA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999945$
Calibration curve: $-0.000352587^{*} x^{\wedge} 2+0.738655 * x+0.0923596$
Response type: Internal Std (Ref 33 ), Area * (IS Conc. /IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Ype | d. | RT | \% Area | IS Area | Response | Conc \%Dev Conc. Flag |  |  | CoD. Con Flag $x=$ excluded |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. H Hix | 1 170728M2_2 | Standard | 0.250 | 4.11 | 1300.977 | 57359.027 | 0.284 | 0.3 | 3.5 | NO | 1.000 | NO | bb |
| 2.4 | 2 170728M2_3 | Standard | 0.500 | 4.11 | 2222.104 | 62862.797 | 0.442 | 0.5 | -5.3 | NO | 1.000 | NO | bb |
| $3$ | 3 170728M2_4 | Standard | 1.000 | 4.11 | 4280.404 | 62925.098 | 0.850 | 1.0 | 2.7 | NO | 1.000 | NO | bb |
| 4 \% ${ }^{\text {a }}$ | . 4 170728M2_5 | Standard | 2.000 | 4.11 | 4679.629 | 38112.383 | 1.535 | 2.0 | -2.3 | NO | 1.000 | NO | bb |
| $5$ | $5170728 \mathrm{M} 2 \_6$ | Standard | 5.000 | 4.11 | 20068.451 | 65242.195 | 3.845 | 5.1 | 1.9 | NO | 1.000 | NO | bb |
| $6$ | 6 170728M2_7 | Standard | 10.000 | 4.12 | 38402.559 | 64369.324 | 7.457 | 10.0 | 0.2 | NO | 1.000 | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 50.000 | 4.12 | 181049.781 | 63436.871 | 35.675 | 49.3 | -1.3 | NO | 1.000 | NO | bb |
| $8$ | 8 170728M2_9 | Standard | 100.000 | 4.12 | 354982.063 | 62525.133 | 70.968 | 100.8 | 0.8 | NO | 1.000 | NO | bb |
| 9 , < ${ }^{\text {a }}$ | 9170728 M 2 | Standard | 250.000 | 4.12 | 806806.375 | 62024.961 | 162.597 | 249.8 | -0.1 | NO | 1.000 | NO | bb |

## Compound name: PFDS

Coefficient of Determination: $R^{\wedge} 2=0.999598$
Calibration curve: $-4.79281 \mathrm{e}-005{ }^{*} \mathrm{x}^{\wedge} 2+0.0714733 * x+-0.00107069$
Response type: Internal Std (Ref 33 ), Area * ( IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset:
U:IQ4.PRO\results\170728M2\170728M2-CRV.ald
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed:
Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: PFDoA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998624$
Calibration curve: 0.000483062 * $x^{\wedge} 2+0.770384 * x+0.341437$
Response type: Internal Std ( Ref 34 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFTrDA

Correlation coefficient: $\mathrm{r}=0.999451, \mathrm{r}^{\wedge} 2=0.998903$
Calibration curve: 9.7472 * x + 1.17215
Response type: Internal Std ( Ref 34 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | ne | CoD | F | xcluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - ${ }^{\text {a }}$ | 1 170728M2_2 | Standard | 0.250 | 4.43 | 1587.994 | 5962.159 | 3.329 | 0.2 | -11.5 | NO | 0.999 | NO | bb |
| $2=4$ | 2 170728M2_3 | Standard | 0.500 | 4.43 | 3275.602 | 6995.869 | 5.853 | 0.5 | -4.0 | NO | 0.999 | NO | MM |
| 3 \% | 3 170728M2_4 | Standard | 1.000 | 4.43 | 5908.142 | 6271.752 | 11.775 | 1.1 | 8.8 | NO | 0.999 | NO | bb |
| $4$ | 4 170728M2_5 | Standard | 2.000 | 4.44 | 6200.105 | 3674.716 | 21.090 | 2.0 | 2.2 | NO | 0.999 | NO | bd |
| $5$ | 5 170728M2_6 | Standard | 5.000 | 4.44 | 28220.949 | 6599.834 | 53.450 | 5.4 | 7.3 | NO | 0.999 | NO | bb |
| 6.3 | 6 170728M2_7 | Standard | 10.000 | 4.44 | 54049.188 | 6719.549 | 100.545 | 10.2 | 1.9 | NO | 0.999 | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 50.000 | 4.45 | 253970.109 | 6608.889 | 480.357 | 49.2 | -1.7 | NO | 0.999 | NO | bb |
| 8 | 8 170728M2_9 | Standard | 100.000 | 4.45 | 504655.469 | 6820.428 | 924.897 | 94.8 | -5.2 | NO | 0.999 | NO | bb |
| 9 9, | 9 170728M2_10 | Standard | 250.000 | 4.44 | 1158187.375 | 5812.105 | 2490.895 | 255.4 | 2.2 | NO | 0.999 | NO | bb |

Vista Analytical Laboratory
Dataset: U:IQ4.PROIresults|170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed:
Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: PFTeDA

Coefficient of Determination: $R^{\wedge} 2=0.999781$
Calibration curve: -0.000168072 * $x^{\wedge} 2+1.03773 * x+0.147897$
Response type: Internal Std (Ref 35 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: 13C3-PFBA

Response Factor: 1.06832
RRF SD: 0.0716737 , Relative SD: 6.70898
Response type: Internal Std (Ref 36 ), Area * ( IS Conc. / IS Area )
Curve type: RF


Vista Analytical Laboratory
Dataset:
U:\Q4.PRO\results\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: 13C3-PFPeA

Response Factor: 0.27137
RRF SD: 0.0158354, Relative SD: 5.83535
Response type: Internal Std (Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Conc | RT | Area | IS Area |  |  | 6Dev | nc. F | Of | xcluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1$ | 1 170728M2_2 | Standard | 12.500 | 2.65 | 29626.736 | 43858.891 | 3.378 | 12.4 | -0.4 | NO | NO | MM |
| 2 , 4 | 2 170728M2_3 | Standard | 12.500 | 2.65 | 29534.408 | 43343.379 | 3.407 | 12.6 | 0.4 | NO | NO | MM |
| 3.4 | 3 170728M2_4 | Standard | 12.500 | 2.65 | 29804.117 | 42543.984 | 3.503 | 12.9 | 3.3 | NO | NO | MM |
| $4$ | 4 170728M2_5 | Standard | 12.500 | 2.65 | 16510.811 | 24635.240 | 3.351 | 12.3 | -1.2 | NO | NO | MM |
| $5$ | 5 170728M2_6 | Standard | 12.500 | 2.65 | 28830.305 | 42398.152 | 3.400 | 12.5 | 0.2 | NO | NO | MM |
| 6 . ${ }^{\text {che }}$ | $6170728 \mathrm{M} 2 \ldots 7$ | Standard | 12.500 | 2.65 | 30611.281 | 42712.195 | 3.583 | 13.2 | 5.6 | NO | NO | MM |
| $17$ | 7 170728M2_8 | Standard | 12.500 | 2.66 | 30216.350 | 43123.621 | 3.503 | 12.9 | 3.3 | NO | NO | MM |
| $8$ | 8 170728M2_9 | Standard | 12.500 | 2.65 | 30196.234 | 43136.543 | 3.500 | 12.9 | 3.2 | NO | NO | MM |
| 9.4 | 9 170728M2_10 | Standard | 12.500 | 2.66 | 26920.408 | 46352.453 | 2.904 | 10.7 | -14.4 | NO | NO | MM |

## Compound name: 13C3-PFBS

Response Factor: 0.0330768
RRF SD: 0.00312302, Relative SD: 9.44172
Response type: Internal Std ( Ref 37 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  |  |  | Sid. Conc | RT |  | IS Area Response |  | Conc. \%Dev Conc. Fla |  |  | CodFlag $\mathrm{x}=$-excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2. | 1 170728M2_2 | Standard | 12.500 | 2.89 | 3725.665 | 43858.891 | 0.425 | 12.8 | 2.7 | NO | NO | bb |
| 2 | 2 170728M2_3 | Standard | 12.500 | 2.89 | 3680.041 | 43343.379 | 0.425 | 12.8 | 2.7 | NO | NO | bb |
| $3$ | 3 170728M2_4 | Standard | 12.500 | 2.90 | 3805.429 | 42543.984 | 0.447 | 13.5 | 8.2 | NO | NO | bb |
| 4 4. | 4 170728M2_5 | Standard | 12.500 | 2.90 | 2141.663 | 24635.240 | 0.435 | 13.1 | 5.1 | NO | NO | bb |
| 5.4 | 5 170728M2_6 | Standard | 12.500 | 2.89 | 3529.564 | 42398.152 | 0.416 | 12.6 | 0.7 | NO | NO | bb |
| $6$ | 6 170728M2_7 | Standard | 12.500 | 2.89 | 3732.698 | 42712.195 | 0.437 | 13.2 | 5.7 | NO | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 12.500 | 2.90 | 3533.129 | 43123.621 | 0.410 | 12.4 | -0.9 | NO | NO | bb |
| $8$ | 8 170728M2_9 | Standard | 12.500 | 2.90 | 3559.104 | 43136.543 | 0.413 | 12.5 | -0.2 | NO | NO | bb |
| 9.4 | 9 170728M2_10 | Standard | 12.500 | 2.90 | 2916.369 | 46352.453 | 0.315 | 9.5 | -23.9 | NO | NO | bb |

Dataset: U:IQ4.PRO\results\170728M21170728M2-CRV.qld

Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

Compound name: 13C2-PFHxA
Response Factor: 0.335131
RRF SD: 0.0194922, Relative SD: 5.81629
Response type: Internal Std (Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C4-PFHpA

Response Factor: 0.368851
RRF SD: 0.0255164 , Relative SD: 6.91781
Response type: Internal Std ( Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Typer | Std. Conc | RT | * Area | IS Area | Response | Conc. | \%Dev | Conc. Flag CoD . | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1170728 \mathrm{M} 2 \_2$ | Standard | 12.500 | 3.40 | 43061.438 | 43858.891 | 4.909 | 13.3 | 6.5 | NO | NO | bb |
| $2=0$ | 2 170728M2_3 | Standard | 12.500 | 3.40 | 38433.738 | 43343.379 | 4.434 | 12.0 | -3.8 | NO | NO | bb |
| 3.3 | 3 170728M2_4 | Standard | 12.500 | 3.41 | 40909.711 | 42543.984 | 4.808 | 13.0 | 4.3 | NO | NO | bb |
| 4. | 4 170728M2_5 | Standard | 12.500 | 3.40 | 24182.768 | 24635.240 | 4.908 | 13.3 | 6.5 | NO | NO | bb |
| $5 . \pm$, m | 5 170728M2_6 | Standard | 12.500 | 3.41 | 39156.566 | 42398.152 | 4.618 | 12.5 | 0.2 | NO | NO | bb |
| $6$ | 6170728 M 2 _7 | Standard | 12.500 | 3.41 | 40354.555 | 42712.195 | 4.724 | 12.8 | 2.5 | NO | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 12.500 | 3.41 | 38873.176 | 43123.621 | 4.507 | 12.2 | -2.2 | NO | NO | bb |
| $8$ | 8 170728M2_9 | Standard | 12.500 | 3.41 | 40612.637 | 43136.543 | 4.707 | 12.8 | 2.1 | NO | NO | bb |
| 9 9 M ${ }^{\text {a }}$ | $9170728 \mathrm{M} 2 \_10$ | Standard | 12.500 | 3.41 | 35974.605 | 46352.453 | 3.881 | 10.5 | -15.8 | NO | NO | bb |

## Compound name: 1802-PFHxS

Response Factor: 0.460288
RRF SD: 0.0389674 , Relative SD: 8.46587
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | COD $=$ CoD Fia | xcluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 170728M2_2 | Standard | 12.500 | 3.47 | 3693.206 | 7812.813 | 5.909 | 12.8 | 2.7 | NO | NO | bb |
| 2 | 2 170728M2_3 | Standard | 12.500 | 3.47 | 3400.828 | 7661.151 | 5.549 | 12.1 | -3.6 | No | NO | bb |
| $3-1$ | 3 170728M2_4 | Standard | 12.500 | 3.47 | 3811.290 | 7158.323 | 6.655 | 14.5 | 15.7 | NO | NO | bb |
|  | 4 1.70728M2_5 | Standard | 12.500 | 3.47 | 1965.832 | 4300.112 | 5.714 | 12.4 | -0.7 | NO | NO | bb |
| 5 | 5 170728M2_6 | Standard | 12.500 | 3.48 | 3173.995 | 6977.436 | 5.686 | 12.4 | -1.2 | NO | NO | bb |
| $6$ | 6 170728M2_7 | Standard | 12.500 | 3.47 | 3599.749 | 7970.943 | 5.645 | 12.3 | -1.9 | NO | NO | bb |
| 7 | 7 170728M2_8 | Standard | 12.500 | 3.49 | 3541.580 | 7411.993 | 5.973 | 13.0 | 3.8 | NO | NO | bb |
| 8. | 8 170728M2_9 | Standard | 12.500 | 3.48 | 3591.229 | 7651.521 | 5.867 | 12.7 | 2.0 | NO | NO | bb |
| $9 \times$ | 9 170728M2_10 | Standard | 12.500 | 3.48 | 2835.098 | 7407.810 | 4.784 | 10.4 | -16.9 | NO | NO | bb |

## Compound name: 13C2-PFOA

Response Factor: 1.29343
RRF SD: 0.0978713, Relative SD: 7.56682
Response type: Internal Std (Ref 39 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name |  | Std Conc | RT- Area |  | , IS Área | Response | Conc. \% $\%$ Dev |  | Conc. Flag | CoD Flag $x=e x c l u d e d$. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | 1 170728M2_2 | Standard | 12.500 | 3.60 | 67432.422 | 50353.582 | 16.740 | 12.9 | 3.5 | NO | NO | bb |
| $2=14$ | 2 170728M2_3 | Standard | 12.500 | 3.60 | 69121.398 | 51722.332 | 16.705 | 12.9 | 3.3 | NO | NO | bb |
| 3 3 | 3 170728M2_4 | Standard | 12.500 | 3.60 | 65175.223 | 51349.039 | 15.866 | 12.3 | -1.9 | NO | NO | bb |
| ( 4 | 4 170728M2_5 | Standard | 12.500 | 3.60 | 37231.426 | 27008.686 | 17.231 | 13.3 | 6.6 | NO | NO | bb |
| $5$ | 5 170728M2_6 | Standard | 12.500 | 3.61 | 65033.895 | 47128.594 | 17.249 | 13.3 | 6.7 | NO | NO | bb |
| 6 | 6 170728M2_7 | Standard | 12.500 | 3.60 | 65066.762 | 50246.984 | 16.187 | 12.5 | 0.1 | NO | NO | bb |
| 7 \% ${ }^{\text {a }}$ | 7 170728M2_8 | Standard | 12.500 | 3.61 | 65231.879 | 50282.098 | 16.216 | 12.5 | 0.3 | NO | NO | bb |
| $\checkmark$ | 8 170728M2_9 | Standard | 12.500 | 3.60 | 64313.508 | 49800.309 | 16.143 | 12.5 | -0.2 | NO | NO | bb |
| $9 \times 1$ | 9 170728M2_10 | Standard | 12.500 | 3.61 | 53563.473 | 50823.395 | 13.174 | 10.2 | -18.5 | NO | NO | bb |

Vista Analytical Laboratory
Dataset: U:IQ4.PROlresults\170728M2\170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: 13C5-PFNA

Response Factor: 0.985933
RRF SD: 0.0816002, Relative SD: 8.27645
Response type: Internal Std (Ref 40 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C8-PFOSA

Response Factor: 0.132492
RRF SD: 0.0168341, Relative SD: 12.7057
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: RF

| 1 | $\begin{aligned} & \text { \# Name } \\ & 1 \text { 170728M2_2 } \end{aligned}$ | Type Standard | $\begin{array}{r} \text { Std. Conc } \\ 12.500 \end{array}$ | RT ${ }^{\text {area }}$ Area |  | IS Area Response |  | Conc. \%Dev |  | Conc. Flag 600 | CodFlag $x$ =excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 3.79 | 7534.616 | 55026.387 | 1.712 | 12.9 | 3.3 | NO | NO | bb |
|  | 2 170728M2_3 | Standard | 12.500 | 3.79 | 7838.506 | 57174.012 | 1.714 | 12.9 | 3.5 | NO | NO | bb |
|  | 3 170728M2_4 | Standard | 12.500 | 3.78 | 7863.147 | 56604.801 | 1.736 | 13.1 | 4.8 | NO | NO | bb |
| $4$ | 4 170728M2_5 | Standard | 12.500 | 3.79 | - 4067.927 | 32976.875 | 1.542 | 11.6 | -6.9 | NO | NO | bb |
| $5$ | $5170728 \mathrm{M} 2 \ldots 6$ | Standard | 12.500 | 3.79 | 8322.412 | 54183.844 | 1.920 | 14.5 | 15.9 | NO | NO | bb |
| $6$ | 6 170728M2_7 | Standard | 12.500 | 3.79 | 7844.739 | 56154.422 | 1.746 | 13.2 | 5.4 | NO | NO | bb |
| $17$ | 7 170728M2_8 | Standard | 12.500 | 3.79 | 7294.865 | 54787.105 | 1.664 | 12.6 | 0.5 | NO | NO | bb |
| $8$ | 8 170728M2_9 | Standard | 12.500 | 3.79 | 7074.365 | 51641.449 | 1.712 | 12.9 | 3.4 | NO | NO | bb |
| $9 \times 3$ | 9 170728M2_10 | Standard | 12.500 | 3.79 | 5557.022 | 59947.359 | 1.159 | 8.7 | -30.0 | NO | NO | bb |

## Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory
Dataset:
U:\Q4.PRO\results\170728M21170728M2-CRV.qld
Last Altered:
Printed:
Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: 13C8-PFOS

Response Factor: 1.18433
RRF SD: 0.0947906, Relative SD: 8.00375
Response type: Internal Std (Ref 41 ), Area * (IS Conc. / IS Area )
Curve type: RF


## Compound name: 13C2-PFDA

Response Factor: 0.997715
RRF SD: 0.0821401 , Relative SD: 8.23282
Response type: Internal Std (Ref 42 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | Dev | c. | D | duded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 170728M2_2 | Standard | 12.500 | 3.95 | 60003.141 | 60101.680 | 12.480 | 12.5 | 0.1 | NO | NO | bb |
| 2.4* | 2 170728M2_3 | Standard | 12.500 | 3.95 | 55549.078 | 61783.742 | 11.239 | 11.3 | -9.9 | NO | NO | bb |
| 3.4 | 3 170728M2_4 | Standard | 12.500 | 3.95 | 53618.211 | 49093.789 | 13.652 | 13.7 | 9.5 | NO | NO | bb |
| 4. Le | $4170728 \mathrm{M} 2 \_5$ | Standard | 12.500 | 3.95 | 30851.922 | 30032.572 | 12.841 | 12.9 | 3.0 | NO | NO | bb |
| 5 , + ${ }^{\text {a }}$ | 5 170728M2_6 | Standard | 12.500 | 3.95 | 59808.203 | 63988.594 | 11.683 | 11.7 | -6.3 | NO | NO | bb |
| 6 | 6170728 M 2 _7 | Standard | 12.500 | 3.95 | 64638.613 | 57573.766 | 14.034 | 14.1 | 12.5 | NO | NO | bb |
| $7,$ | 7 170728M2_8 | Standard | 12.500 | 3.96 | 58663.914 | 57140.258 | 12.833 | 12.9 | 2.9 | NO | NO | bb |
| 8 | 8 170728M2_9 | Standard | 12.500 | 3.96 | 55892.832 | 55938.863 | 12.490 | 12.5 | 0.1 | NO | NO | bb |
| 9 Cl | 9170728 M 2 _10 | Standard | 12.500 | 3.96 | 56744.188 | 64531.480 | 10.992 | 11.0 | -11.9 | NO | NO | bb |


| Dataset: | U:IQ4.PROlresults\170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:10:19 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:11:02 Pacific Daylight Time |

## Compound name: d3-N-MeFOSAA

## Response Factor: 0.0176867

RRF SD: 0.0016968, Relative SD: 9.59363
Response type: Internal Std ( Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: RF

| 2. ${ }^{\text {a }}$ |  |  | Std Conc | RT | Area | IS Area | Response Conc. |  | \%Dev Conc. Flag |  | CODFlag | x=excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 tax | 1 170728M2_2 | Standard | 162.500 | 3.97 | 12883.249 | 55026.387 | 2.927 | 165.5 | 1.8 | NO | NO | bb |
| 2, mix | 2 170728M2_3 | Standard | 162.500 | 3.98 | 12942.593 | 57174.012 | 2.830 | 160.0 | -1.5 | NO | NO | bb |
| 3.15 | 3 170728M2_4 | Standard | 162.500 | 3.97 | 13619.269 | 56604.801 | 3.008 | 170.0 | 4.6 | NO | No | bb |
| $4{ }^{4}+3$ | 4 170728M2_5 | Standard | 162.500 | 3.98 | 7508.003 | 32976.875 | 2.846 | 160.9 | -1.0 | NO | NO | bb |
| $5 \times 2$ | 5 170728M2_6 | Standard | 162.500 | 3.98 | 14192.388 | 54183.844 | 3.274 | 185.1 | 13.9 | NO | NO | bb |
| $6$ | 6 170728M2_7 | Standard | 162.500 | 3.98 | 13644.029 | 56154.422 | 3.037 | 171.7 | 5.7 | NO | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 162.500 | 3.99 | 12178.927 | 54787.105 | 2.779 | 157.1 | -3.3 | NO | NO | bb |
| 8. | 8 170728M2_9 | Standard | 162.500 | 3.99 | 12044.903 | 51641.449 | 2.916 | 164.8 | 1.4 | NO | NO | bb |
| 9-5cte | 9 170728M2_10 | Standard | 162.500 | 3.98 | 10798.391 | 59947.359 | 2.252 | 127.3 | -21.7 | NO | NO | bb |

## Compound name: d5-N-EtFOSAA

Response Factor: 0.0177723
RRF SD: 0.00139291 , Relative SD: 7.83752
Response type: Internal Std ( Ref 43 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name we. Type T , Std. Cone |  |  | RT Area IS Area |  |  | Response | Conc. \%Dev Conc. Flag |  |  | COD CODFla | CoD Flag x-excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-4.4.4 | 1 170728M2_2 | Standard | 162.500 | 4.04 | 13002.753 | 55026.387 | 2.954 | 166.2 | 2.3 | NO | NO | bb |
| 2 | 2 170728M2_3 | Standard | 162.500 | 4.04 | 13332.326 | 57174.012 | 2.915 | 164.0 | 0.9 | NO | NO | bb |
| 3 | 3 170728M2_4 | Standard | 162.500 | 4.04 | 13734.974 | 56604.801 | 3.033 | 170.7 | 5.0 | NO | NO | bb |
| 4 | 4 170728M2_5 | Standard | 162.500 | 4.04 | 7359.929 | 32976.875 | 2.790 | 157.0 | -3.4 | NO | NO | bb |
| $5{ }^{2}+4$ | 5 170728M2_6 | Standard | 162.500 | 4.04 | 13694.013 | 54183.844 | 3.159 | 177.8 | 9.4 | NO | NO | bb |
| 6.3 | 6 170728M2_7 | Standard | 162.500 | 4.05 | 12997.170 | 56154.422 | 2.893 | 162.8 | 0.2 | NO | NO | bb |
| - ${ }^{4}$ | 7 170728M2_8 | Standard | 162.500 | 4.05 | 12723.811 | 54787.105 | 2.903 | 163.3 | 0.5 | NO | NO | bb |
| $8=5$ | 8 170728M2_9 | Standard | 162.500 | 4.05 | 12372.299 | 51641.449 | 2.995 | 168.5 | 3.7 | NO | NO | bb |
| 9. | 9 170728M2_10 | Standard | 162.500 | 4.05 | 11272.279 | 59947.359 | 2.350 | 132.3 | -18.6 | NO | NO | bb |

Vista Analytical Laboratory
Dataset: U:IQ4.PROIresults1170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: 13C2-PFUnA

Response Factor: 1.12922
RRF SD: 0.0629902, Relative SD: 5.57822
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: RF

| - ${ }^{2}$ | \# Name Ther Type |  | Std Conc | ${ }^{2}$ RT | Area IS Area |  | Response | Conc. \%Dev Conc. Flag |  |  | CoD | COD Flag x=excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 ㅂㅔㅔ | 1 170728M2_2 | Standard | 12.500 | 4.11 | 57359.027 | 55026.387 | 13.030 | 11.5 | -7.7 | NO |  | NO | bb |
| $2$ | 2 170728M2_3 | Standard | 12.500 | 4.12 | 62862.797 | 57174.012 | 13.744 | 12.2 | -2.6 | NO |  | NO | bb |
| - $\mathrm{l}_{1}$ | 3 170728M2_4 | Standard | 12.500 | 4.11 | 62925.098 | 56604.801 | 13.896 | 12.3 | -1.6 | NO |  | NO | bb |
| 4 \% | 4170728 M 2 -5 | Standard | 12.500 | 4.11 | 38112.383 | 32976.875 | 14.447 | 12.8 | 2.3 | NO |  | NO | bb |
| 5 | 5 170728M2_6 | Standard | 12.500 | 4.12 | 65242.195 | 54183.844 | 15.051 | 13.3 | 6.6 | NO |  | NO | bb |
| 6 \% ${ }^{2}$ | $6170728 \mathrm{M2} 27$ | Standard | 12.500 | 4.12 | 64369.324 | 56154.422 | 14.329 | 12.7 | 1.5 | NO |  | NO | bb |
| 7.2 | 7 170728M2_8 | Standard | 12.500 | 4.12 | 63436.871 | 54787.105 | 14.473 | 12.8 | 2.5 | NO |  | NO | bb |
| 8 | 8 170728M2_9 | Standard | 12.500 | 4.12 | 62525.133 | 51641.449 | 15.134 | 13.4 | 7.2 | NO |  | NO | bb |
| $9{ }^{2}$ | 9 170728M2_10 | Standard | 12.500 | 4.12 | 62024.961 | 59947.359 | 12.933 | 11.5 | -8.4 | NO |  | NO | bb |

## Compound name: 13C2-PFDoA

Response Factor: 0.116007
RRF SD: 0.0102256 , Relative SD: 8.81464
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: RF


| Dataset: | U:IQ4.PROlresults\170728M21170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:10:19 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:11:02 Pacific Daylight Time |

## Compound name: 13C2-PFTeDA

Response Factor: 0.762144
RRF SD: 0.0538952 , Relative SD: 7.07152
Response type: Internal Std ( Ref 43 ), Area * ( IS Conc. / IS Area )
Curve type: RF


## Compound name: 13C4-PFBA

## Response Factor: 1

RRF SD: 1.30185e-016, Relative SD: $1.30185 \mathrm{e}-014$
Response type: Internal Std (Ref 36 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | 15 Area | Response | Conc. | \%Dev | Conc. Flag | CoD - CoDFlag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 170728M2_2 | Standard | 12.500 | 1.34 | 14679.223 | 14679.223 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2. Wims | 2 170728M2_3 | Standard | 12.500 | 1.35 | 14157.839 | 14157.839 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 | 3 170728M2_4 | Standard | 12.500 | 1.35 | 13901.761 | 13901.761 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 4 170728M2_5 | Standard | 12.500 | 1.35 | 7966.370 | 7966.370 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $5$ | 5 170728M2_6 | Standard | 12.500 | 1.36 | 13542.045 | 13542.045 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 | $6170728 \mathrm{M} 2 \ldots 7$ | Standard | 12.500 | 1.36 | 14135.810 | 14135.810 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 12.500 | 1.36 | 13890.406 | 13890.406 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 8170728 M 2 _9 | Standard | 12.500 | 1.35 | 14422.259 | 14422.259 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9-4ty | 9 170728M2_10 | Standard | 12.500 | 1.36 | 15665.605 | 15665.605 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

Vista Analytical Laboratory
Dataset: U:IQ4.PRO\resultsi170728M21170728M2-CRV.qld

Last Altered: $\quad$ Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: 13C5-PFHxA

Response Factor: 1
RRF SD: 0 , Relative SD: 0
Response type: Internal Std (Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name frat Type |  | cor | Area |  | Response |  | Conc. \%Dev |  | Conc, Flag | COD | Cob Flag $\mathrm{x}=$ excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 170728M2_2 | Standard | 5.000 | 3.13 | 43858.891 | 43858.891 | 5.000 | 5.0 | 0.0 | NO |  | NO | bb |
|  | 2 170728M2_3 | Standard | 5.000 | 3.14 | 43343.379 | 43343.379 | 5.000 | 5.0 | 0.0 | NO |  | NO | bb |
|  | 3 170728M2_4 | Standard | 5.000 | 3.13 | 42543.984 | 42543.984 | 5.000 | 5.0 | 0.0 | NO |  | NO | bb |
| $4$ | 4 170728M2_5 | Standard | 5.000 | 3.14 | 24635.240 | 24635.240 | 5.000 | 5.0 | 0.0 | NO |  | NO | bb |
| $5$ | 5 170728M2_6 | Standard | 5.000 | 3.14 | 42398.152 | 42398.152 | 5.000 | 5.0 | 0.0 | NO |  | NO | bb |
| $6$ | 6170728 M 2 _7 | Standard | 5.000 | 3.14 | 42712.195 | 42712.195 | 5.000 | 5.0 | 0.0 | NO |  | NO | bb |
| 7. | 7 170728M2_8 | Standard | 5.000 | 3.14 | 43123.621 | 43123.621 | 5.000 | 5.0 | 0.0 | NO |  | NO | bb |
| $8$ | 8 170728M2_9 | Standard | 5.000 | 3.14 | 43136.543 | 43136.543 | 5.000 | 5.0 | 0.0 | NO |  | NO | bb |
| 9 Y | 9 170728M2_10 | Standard | 5.000 | 3.14 | 46352.453 | 46352.453 | 5.000 | 5.0 | 0.0 | NO |  | NO | bb |

## Compound name: 13C3-PFHxS

Response Factor: 1
RRF SD: 3.92523e-017, Relative SD: 3.92523e-015
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: RF


Vista Analytical Laboratory
Dataset:
U:IQ4.PRO\results\170728M2\170728M2-CRV.qld
Last Altered:
Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed:
Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: 13C8-PFOA

Response Factor: 1
RRF SD: 0 , Relative SD: 0
Response type: Internal Std (Ref 39 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C9-PFNA

Response Factor: 1
RRF SD: 1.30185e-016, Relative SD: 1.30185e-014
Response type: Internal Std (Ref 40 ), Area * (IS Conc. / IS Area)
Curve type: RF


Dataset:
U:IQ4.PRO\resultsI170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: 13C4-PFOS

Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 41 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | +4 | Std. Conc | RT | \% Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | COD CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4.ET | 1 170728M2_2 | Standard |  | 12.500 | 3.83 | 8684.470 | 8684.470 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 2- | 2 170728M2_3 | Standard |  | 12.500 | 3.83 | 8914.332 | 8914.332 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 C | 3 170728M2_4 | Standard |  | 12.500 | 3.83 | 8566.251 | 8566.251 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $4-5$ | 4 170728M2_5 | Standard |  | 12.500 | 3.83 | 5073.126 | 5073.126 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 5 | 5 170728M2_6 | Standard |  | 12.500 | 3.83 | 9069.241 | 9069.241 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 | 6170728 M 2 | Standard |  | 12.500 | 3.84 | 9441.893 | 9441.893 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $17$ | 7 170728M2_8 | Standard |  | 12.500 | 3.84 | 8412.276 | 8412.276 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 | $8170728 \mathrm{M2} 2$ 9 | Standard |  | 12.500 | 3.84 | 8094.951 | 8094.951 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $9+1$ | 9 170728M2_10 | Standard |  | 12.500 | 3.84 | 8844.576 | 8844.576 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

## Compound name: 13C6-PFDA

## Response Factor: 1

RRF SD: 8.77708e-017, Relative SD: 8.77708e-015
Response type: Internal Std (Ref 42 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag COD | CoD Flag | $x=e x c l u d e d$. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 170728M2_2 | Standard | 12.500 | 3.95 | 60101.680 | 60101.680 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 170728M2_3 | Standard | 12.500 | 3.95 | 61783.742 | 61783.742 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $3$ | 3 170728M2_4 | Standard | 12.500 | 3.94 | 49093.789 | 49093.789 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $4$ | 4 170728M2_5 | Standard | 12.500 | 3.95 | 30032.572 | 30032.572 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $5$ | $5170728 \mathrm{M} 2 \_6$ | Standard | 12.500 | 3.95 | 63988.594 | 63988.594 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $6$ | $6170728 \mathrm{M} 2 \_7$ | Standard | 12.500 | 3.95 | 57573.766 | 57573.766 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $7$ | 7 170728M2_8 | Standard | 12.500 | 3.95 | 57140.258 | 57140.258 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8. ${ }^{\text {a }}$, | 8170728 M 2 _9 | Standard | 12.500 | 3.96 | 55938.863 | 55938.863 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9, ${ }^{\text {a }}$ | $9170728 \mathrm{M} 2 \ldots 10$ | Standard | 12.500 | 3.95 | 64531.480 | 64531.480 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

## Quantify Compound Summary Report

Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:10:19 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:11:02 Pacific Daylight Time

## Compound name: 13C7-PFUnA

Response Factor: 1
RRF SD: 3.92523e-017, Relative SD: $3.92523 \mathrm{e}-015$
Response type: Internal Std ( Ref 43 ), Area * (IS Conc. / IS Area )
Curve type: RF

| \% | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Cone. | \%Dev | Conc. Flag | COD $=$ COD Flag | x -excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4 | 1 170728M2_2 | Standard | 12.500 | 4.11 | 55026.387 | 55026.387 | 12.500 | 12.5 | 0.0 | NO | NO | MM |
| 2 | 2 170728M2_3 | Standard | 12.500 | 4.12 | 57174.012 | 57174.012 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 3 170728M2_4 | Standard | 12.500 | 4.11 | 56604.801 | 56604.801 | 12.500 | 12.5 | 0.0 | No | NO | bb |
| $4{ }^{4}+2$ | 4 170728M2_5 | Standard | 12.500 | 4.11 | 32976.875 | 32976.875 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| + | 5 170728M2_6 | Standard | 12.500 | 4.12 | 54183.844 | 54183.844 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 | 6 170728M2_7 | Standard | 12.500 | 4.12 | 56154.422 | 56154.422 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 7time | 7 170728M2_8 | Standard | 12.500 | 4.12 | 54787.105 | 54787.105 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8. | 8 170728M2_9 | Standard | 12.500 | 4.12 | 51641.449 | 51641.449 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $9 \times 1$ | 9 170728M2_10 | Standard | 12.500 | 4.12 | 59947.359 | 59947.359 | 12.500 | 12.5 | 0.0 | NO | NO | bb |


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Monday, July 31, 2017 08:41:44 Pacific Daylight Time |
| Printed: | Monday, July 31, 2017 08:42:20 Pacific Daylight Time |

Method: U:IQ4.PROIMethDBIPFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

## Compound name: PFBA

| 2xamer | Name. | - ${ }^{\text {a }}$ ID | Acq.Date | Acq. Time |
| :---: | :---: | :---: | :---: | :---: |
| $1 \times 3$ | 170728M2_1 | IPA | 28-Jul-17 | 16:09:52 |
| $2=$ | 170728M2_2 | ST170728M2-1 PFC CS-2 17G2824 | 28-Jul-17 | 16:20:47 |
| $3-1$ | 170728M2_3 | ST170728M2-2 PFC CS-1 17G2825 | 28-Jul-17 | 16:31:32 |
| 4 - | 170728M2_4 | ST170728M2-3 PFC CS0 17G2826 | 28-Jul-17 | 16:42:11 |
| 5 | 170728M2_5 | ST170728M2-4 PFC CS1 17G2827 | 28-Jul-17 | 16:52:57 |
| - | 170728M2_6 | ST170728M2-5 PFC CS2 17G2828 | 28-Jul-17 | 17:03:36 |
| 2 | 170728M2_7 | ST170728M2-6 PFC CS3 17G2829 | 28-Jul-17 | 17:14:14 |
|  | [170728M2_8 | ST170728M2-7 PFC CS4 17G2830 | 28-Jul-17 | 17:24:53 |
| 9. | 170728M2_9 | ST170728M2-8 PFC CS5 17G2831 | 28-Jul-17 | 17:35:31 |
| 10 | 170728M2_10 | ST170728M2-9 PFC CS6 17G2801 | 28-Jul-17 | 17:46:09 |
| 11 | 170728M2_11 | ST170728M2-10 PFC CS7 17 G 2802 | 28-Jul-17 | 17:56:56 |
| 12 | 170728M2_12 | IPA | 28-Jul-17 | 18:07:42 |
| $13 \times$ | 170728M2_13 | SS170728M2-1 PFC SSS 17G2823 | 28-Jul-17 | 18:18:40 |
| $14 \times$ | 170728M2_14 | IPA | 28-Jul-17 | 18:29:24 |

Dataset:

## U:\Q4.PRO\results\170728M21170728M2-CRV.qld

Last Altered: Printed:

Sunday, July 30, 2017 08:05:03 Pacific Daylight Time Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

## Method: U:IQ4.PROMMethDBIPFAS_L17_I_14_7-27-17.mdb 28 Jul 2017 08:40:43

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:05:03

Compound name: PFBA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999678$
Calibration curve: $0.000110804{ }^{*} x^{\wedge} 2+1.07999^{*} x+0.11163$
Response type: Internal Std (Ref 20 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\170728M2\170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFPeA
Correlation coefficient: $\mathrm{r}=0.999801, \mathrm{r}^{\wedge} 2=0.999602$
Calibration curve: 0.958373 * $x+0.0576289$
Response type: Internal Std (Ref 21 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Work Order 1700871

## Quantify Calibration Report <br> Vista Analytical Laboratory Q1

MassLynx MassLynx V4.1 SCN945 SCN960

Dataset: U:IQ4.PROIresults\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFBS
Correlation coefficient: $\mathrm{r}=0.999861, \mathrm{r}^{\wedge} 2=0.999721$
Calibration curve: 1.85784 * $x+-0.00404936$
Response type: Internal Std (Ref 22 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFHxA
Correlation coefficient: $\mathrm{r}=0.999860, \mathrm{r}^{\wedge} 2=0.999719$
Calibration curve: 1.39516 * x + 0.138496
Response type: Internal Std (Ref 23 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\170728M2\170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFHpA
Correlation coefficient: $\mathrm{r}=0.999957, \mathrm{r}^{\wedge} 2=0.999914$
Calibration curve: $1.17847{ }^{*} x+0.0681471$
Response type: Internal Std (Ref 24 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:QQ4.PRO\results\170728M2\170728M2-CRV.qld
$\begin{array}{ll}\text { Last Altered: } & \text { Sunday, July 30, } 2017 \text { 08:05:03 Pacific Daylight Time } \\ \text { Printed: } & \text { Sunday, July 30, } 2017 \text { 08:06:31 Pacific Daylight Time }\end{array}$ Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFHxS
Correlation coefficient: $\mathrm{r}=0.999604, \mathrm{r}^{\wedge} 2=0.999209$
Calibration curve: 1.66642 * $x+0.0527668$
Response type: Internal Std (Ref 25 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

Dataset: U:IQ4.PRO\results1170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFOA
Correlation coefficient: $\mathrm{r}=0.999602, \mathrm{r}^{\wedge} 2=0.999203$
Calibration curve: $0.972567^{*} x+0.119743$
Response type: Internal Std (Ref 26 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1

## Dataset: U:IQ4.PRO\results\170728M21170728M2-CRV.qld

Last Altered: $\quad$ Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFHpS
Correlation coefficient: $\mathrm{r}=0.999698, \mathrm{r}^{\wedge} 2=0.999396$
Calibration curve: 0.0834866 * $x+0.000361382$
Response type: Internal Std (Ref 26 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

Dataset: U:IQ4.PRO|results\170728M2\170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFNA
Correlation coefficient: $\mathrm{r}=0.999774, \mathrm{r}^{\wedge} 2=0.999549$
Calibration curve: 1.0688 *x + 0.0838738
Response type: Internal Std (Ref 27 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: U:IQ4.PRO\results\170728M2\170728M2-CRV.qld

Last Altered:
Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

## Compound name: PFOSA

Correlation coefficient: $\mathrm{r}=0.998852, \mathrm{r}^{\wedge} 2=0.997705$
Calibration curve: 1.09922 * $x+0.0380461$
Response type: Internal Std (Ref 28 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\170728M21170728M2-CRV.qld
$\begin{array}{ll}\text { Last Altered: } & \text { Sunday, July 30, } 2017 \text { 08:05:03 Pacific Daylight Time } \\ \text { Printed: } & \text { Sunday, July 30, } 2017 \text { 08:06:31 Pacific Daylight Time }\end{array}$
Printed:
Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFOS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999381$
Calibration curve: $-8.2411 e-005^{*} x^{\wedge} 2+0.991329$ * $x+0.038537$
Response type: Internal Std (Ref 29 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Work Order 1700871

Dataset: U:\Q4.PRO\results1170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFDA
Correlation coefficient: $\mathrm{r}=0.999404, \mathrm{r}^{\wedge} 2=0.998807$
Calibration curve: 1.20688 * $x+0.163006$
Response type: Internal Std (Ref 30 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Work Order 1700871
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Dataset: U:IQ4.PRO\results\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: N-MeFOSAA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999878$
Calibration curve: $-0.00407341^{*} x^{\wedge} 2+19.807$ * $x+-0.260375$
Response type: Internal Std (Ref 31 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report

Vista Analytical Laboratory Q1
Dataset:
U:IQ4.PRO\results\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: N-EtFOSAA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999787$
Calibration curve: $-0.00107779^{*} x^{\wedge} 2+15.24655^{*} x+0.807358$
Response type: Internal Std (Ref 32 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Work Order 1700871
Page 401 of 588

## Dataset: U:IQ4.PRO|results\170728M21170728M2-CRV.qld

$\begin{array}{ll}\text { Last Altered: } & \text { Sunday, July 30, } 2017 \text { 08:05:03 Pacific Daylight Time } \\ \text { Printed: } & \text { Sunday, July 30, } 2017 \text { 08:06:31 Pacific Daylight Time }\end{array}$

## Compound name: PFUnA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999945$
Calibration curve: $-0.000352587{ }^{*} x^{\wedge} 2+0.738655{ }^{*} \times+0.0923596$
Response type: Internal Std (Ref 33 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\170728M21170728M2-CRV.qid
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFDS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999598$
Calibration curve: -4.79281e-005 * $x^{\wedge} 2+0.0714733$ * $x+-0.00107069$
Response type: Internal Std (Ref 33 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report

## Vista Analytical Laboratory Q1

Dataset: U:IQ4.PRO\results\170728M2\170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

## Compound name: PFDoA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998624$
Calibration curve: 0.000483062 * $x^{\wedge} 2+0.770384$ * $x+0.341437$
Response type: Internal Std (Ref 34 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report

## Vista Analytical Laboratory Q1

Dataset: U:IQ4.PRO\results1170728M21170728M2-CRV.qld
Last Altered: $\quad$ Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

Compound name: PFTrDA
Correlation coefficient: $\mathrm{r}=0.999451, \mathrm{r}^{\wedge} 2=0.998903$
Calibration curve: 9.7472 * $x+1.17215$
Response type: Internal Std (Ref 34 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report <br> \section*{Vista Analytical Laboratory Q1}

## Dataset: U:\Q4.PRO\results1170728M21170728M2-CRV.qld

Last Altered: $\quad$ Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed:
Sunday, July 30, 2017 08:06:31 Pacific Daylight Time

## Compound name: PFTeDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999741$
Calibration curve: $-0.000171677^{*} x^{\wedge} 2+1.03861^{*} x+0.13428$
Response type: Internal Std (Ref 35 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PROIresults1170728M21170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Method: U:IQ4.PROIMethDBIPFAS_L17_L14_7-27-17.mdb 28 Jul 2017 08:40:43

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:05:03

Name: 170728M2_2, Date: 28-Jul-2017, Time: 16:20:47, ID: ST170728M2-1 PFC CS-2 17G2824, Description: PFC CS-2 17G2824


13C3-PFBA



13C3-PFPeA




13C3-PFBS


## PFHxA



13C2-PFHxA


## Dataset:

U:IQ4.PRO\results\170728M2\170728M2-CRV.qid
Last Altered:
Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_2, Date: 28-Jul-2017, Time: 16:20:47, ID: ST170728M2-1 PFC CS-2 17G2824, Description: PFC CS-2 17G2824


13C4-PFHpA



1802-PFHxS


## Total PFOA



13C2-PFOA


## PFHpS



13C2-PFOA


Dataset: U:\Q4.PRO\results\170728M2\170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_2, Date: 28-Jul-2017, Time: 16:20:47, ID: ST170728M2-1 PFC CS-2 17G2824, Description: PFC CS-2 17G2824



13C5-PFNA




13C8-PFOSA


## Total PFOS




13C8-PFOS



| Dataset: | U:IQ4.PRO\results\170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_2, Date: 28-Jul-2017, Time: 16:20:47, ID: ST170728M2-1 PFC CS-2 17G2824, Description: PFC CS-2 17G2824


d3-N-MeFOSAA



d5-N-EtFOSAA




13C2-PFUnA



13C2-PFUnA


Dataset: U:IQ4.PRO\results\170728M2\170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time


| Dataset: | U:IQ4.PRO\results\170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

## Name: 170728M2 2, Date: 28-Jul-2017, Time: 16:20:47, ID: ST170728M2-1 PFC CS-2 17G2824, Description: PFC CS-2 17 G 2824



| Dataset: | U:IQ4.PROVresults\170728M21170728M2-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

## Name: 170728M2_3, Date: 28-Jul-2017, Time: 16:31:32, ID: ST170728M2-2 PFC CS-1 17G2825, Description: PFC CS-1 17G2825



13C3-PFBA


## PFPeA



13C3-PFPeA


PFBS


F6:MRM of 2 channels,ES-
$299>99$


13C3-PFBS


PFHxA


Dataset: U:IQ4.PROIresults\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

## Name: 170728M2_3, Date: 28-Jul-2017, Time: 16:31:32, ID: ST170728M2-2 PFC CS-1 17G2825, Description: PFC CS-1 17 G2825



## 13C4-PFHpA



## Total PFHxS



F16:MRM of 2 channels,ES-


1802-PFHxS


## Total PFOA




13C2-PFOA


## PFHpS



F24:MRM of 4 channels,ES
$448.9>79.9$


13C2-PFOA


Vista Analytical Laboratory

## Dataset: U:\Q4.PRO\results\170728M21170728M2-CRV.qld

Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_3, Date: 28-Jul-2017, Time: 16:31:32, ID: ST170728M2-2 PFC CS-1 17G2825, Description: PFC CS-1 17G2825



## Name: 170728M2_3, Date: 28-Jul-2017, Time: 16:31:32, ID: ST170728M2-2 PFC CS-1 17G2825, Description: PFC CS-1 17G2825



d3-N-MeFOSAA



d5-N-EtFOSAA


## PFUnA



F43:MRM of 2 channels,ES$562.9>269$


13C2-PFUnA



F50:MRM of 2 channels,ES-
$598.9>80$


13C2-PFUnA

Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_3, Date: 28-Jul-2017, Time: 16:31:32, ID: ST170728M2-2 PFC CS-1 17G2825, Description: PFC CS-1 17G2825


13C2-PFDoA


## PFTrDA



13C2-PFDoA


## PFTeDA



F58:MRM of 4 channels,ES-
$712.9>369$


13C2-PFTeDA



13C5-PFHxA

Dataset: U:\Q4.PRO\results\170728M2\170728M2-CRV.qld
Last Altered: $\quad$ Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

## Name: 170728M2_3, Date: 28-Jul-2017, Time: 16:31:32, ID: ST170728M2-2 PFC CS-1 17G2825, Description: PFC CS-1 17 G2825




13C2-PFTeDA


## 13C6-PFDA




13C7-PFUnA


13C9-PFNA


Dataset: U:\Q4.PROVresults\170728M21170728M2-CRV.qld
Last Altered: $\quad$ Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_4, Date: 28-Jul-2017, Time: 16:42:11, ID: ST170728M2-3 PFC CS0 17G2826, Description: PFC CS0 17G2826


13C3-PFBA






PFHxA


13C2-PFHxA


[^1]| Dataset: | U:\Q4.PRO\results\170728M21170728M2-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_4, Date: 28-Jul-2017, Time: 16:42:11, ID: ST170728M2-3 PFC CS0 17G2826, Description: PFC CS0 17 G 2826




1802-PFHxS




13C2-PFOA




13C2-PFOA F20:MRM of 1 channel,ES-


| Dataset: | U:IQ4.PROIresults\170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_4, Date: 28-Jul-2017, Time: 16:42:11, ID: ST170728M2-3 PFC CS0 17G2826, Description: PFC CS0 17G2826



13C5-PFNA


## PFOSA




13C8-PFOSA


Total PFOS

| 100 | F30:MRM of 2 channels,ES- |  |
| :---: | :---: | :---: |
|  | PFOS | $1.142 \mathrm{e}+004$ |
|  | 3.83 |  |
|  | 8.75 e 2 |  |
| \% | 11409 |  |



13C8-PFOS

PFDA


13C2-PFDA


| Dataset: | U:IQ4.PROIresults1170728M21170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

## Name: 170728M2_4, Date: 28-Jul-2017, Time: 16:42:11, ID: ST170728M2-3 PFC CS0 17G2826, Description: PFC CS0 17G2826



d3-N-MeFOSAA



d5-N-EtFOSAA




13C2-PFUnA



13C2-PFUnA


[^2]| Dataset: | U:IQ4.PRO\|resultsI170728M21170728M2-CRV. qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_4, Date: 28-Jul-2017, Time: 16:42:11, ID: ST170728M2-3 PFC CS0 17G2826, Description: PFC CS0 17G2826


Dataset: U:\Q4.PRO\results1170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_4, Date: 28-Jul-2017, Time: 16:42:11, ID: ST170728M2-3 PFC CS0 17G2826, Description: PFC CS0 17 G2826


## Vista Analytical Laboratory

## Dataset: U:\Q4.PRO\results\170728M2\170728M2-CRV.qld

Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

## Name: 170728M2_5, Date: 28-Jul-2017, Time: 16:52:57, ID: ST170728M2-4 PFC CS1 17G2827, Description: PFC CS1 17 G2827



13C3-PFBA



13C3-PFPeA




13C3-PFBS


PFHxA


13C2-PFHxA


Dataset: U:IQ4.PROIresultsI170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

## Name: 170728M2_5, Date: 28-Jul-2017, Time: 16:52:57, ID: ST170728M2-4 PFC CS1 17G2827, Description: PFC CS1 17 G2827



13C4-PFHpA


## Total PFHxS



F16:MRM of 2 channels,ES-


1802-PFHxS



## PFHpS



F24:MRM of 4 channels,ES-
448.9 > 79.9


13C2-PFOA


| Dataset: | U:IQ4.PROIresults1170728M21170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Paciific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_5, Date: 28-Jul-2017, Time: 16:52:57, ID: ST170728M2-4 PFC CS1 17G2827, Description: PFC CS1 17G2827



13C5-PFNA


## PFOSA



F28:MRM of 2 channels,ES-


13C8-PFOSA


## Total PFOS




13C8-PFOS



13C2-PFDA


| Dataset: | U:IQ4.PROIresults1170728M21170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_5, Date: 28-Jul-2017, Time: 16:52:57, ID: ST170728M2-4 PFC CS1 17G2827, Description: PFC CS1 17G2827

d3-N-MeFOSAA


d5-N-EtFOSAA




13C2-PFUnA



13C2-PFUnA


| Dataset: | U:IQ4.PROIresults\170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

## Name: 170728M2 5, Date: 28-Jul-2017, Time: 16:52:57, ID: ST170728M2-4 PFC CS1 17G2827, Description: PFC CS1 17 G2827




13C2-PFDoA




13C2-PFDoA


## PFTeDA




13C2-PFTeDA
F59:MRM of 2 channels,ES-
$714.8>669.6$ $3.270 \mathrm{e}+005$


13C4-PFBA


13C5-PFHxA

Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time


Last Altered: $\quad$ Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

## Name: 170728M2_6, Date: 28-Jul-2017, Time: 17:03:36, ID: ST170728M2-5 PFC CS2 17G2828, Description: PFC CS2 17G2828



## 13C3-PFBA




13C3-PFPeA



13C3-PFBS


PFHxA


13C2-PFHxA

Dataset: U:IQ4.PROIresults1170728M21170728M2-CRV.qld

Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

## Name: 170728M2_6, Date: 28-Jul-2017, Time: 17:03:36, ID: ST170728M2-5 PFC CS2 17G2828, Description: PFC CS2 17 G 2828



## Total PFHxS



1802-PFHxS




13C2-PFOA


## PFHpS




13C2-PFOA


| Dataset: | U:IQ4.PRO\results\170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_6, Date: 28-Jul-2017, Time: 17:03:36, ID: ST170728M2-5 PFC CS2 17G2828, Description: PFC CS2 17 G2828



13C5-PFNA



13C8-PFOSA


## Total PFOS




13C8-PFOS



| Dataset: | U:IQ4.PRO\results\170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_6, Date: 28-Jul-2017, Time: 17:03:36, ID: ST170728M2-5 PFC CS2 17G2828, Description: PFC CS2 17 G2828

d3-N-MeFOSAA


d5-N-EtFOSAA




13C2-PFUnA



13C2-PFUnA


| Dataset: | U:IQ4.PROIresults1170728M21170728M2-CRV. qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_6, Date: 28-Jul-2017, Time: 17:03:36, ID: ST170728M2-5 PFC CS2 17G2828, Description: PFC CS2 17 G2828


| Dataset: | U:IQ4.PROIresults1170728M21170728M2-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_6, Date: 28-Jul-2017, Time: 17:03:36, ID: ST170728M2-5 PFC CS2 17G2828, Description: PFC CS2 17G2828


13C4-PFOS


13C2-PFTeDA
F59:MRM of 2 channels,ES-


13C6-PFDA


13C7-PFUnA


Name: 170728M2_7, Date: 28-Jul-2017, Time: 17:14:14, ID: ST170728M2-6 PFC CS3 17G2829, Description: PFC CS3 17G2829


13C3-PFBA



13C3-PFPeA



## PFHxA



13C2-PFHxA

Printed: Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_7, Date: 28-Jul-2017, Time: 17:14:14, ID: ST170728M2-6 PFC CS3 17G2829, Description: PFC CS3 17G2829


13C5-PFNA


## PFOSA



F28:MRM of 2 channels,ES-


13C8-PFOSA


## Total PFOS




13C8-PFOS


| Dataset: | U:IQ4.PROIresults1170728M2I170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_7, Date: 28-Jul-2017, Time: 17:14:14, ID: ST170728M2-6 PFC CS3 17G2829, Description: PFC CS3 17G2829

## N-MeFOSAA



d3-N-MeFOSAA



d5-N-EtFOSAA
F49:MRM of 1 channel,ES-
$589.3>419$




13C2-PFUnA




13C2-PFUnA


Dataset: U:IQ4.PRO\results\170728M21170728M2-CRV.qld
Last Altered: $\quad$ Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

## Name: 170728M2_7, Date: 28-Jul-2017, Time: 17:14:14, ID: ST170728M2-6 PFC CS3 17G2829, Description: PFC CS3 17 G 2829



| Dataset: | U:IQ4.PROlresultsI170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_7, Date: 28-Jul-2017, Time: 17:14:14, ID: ST170728M2-6 PFC CS3 17G2829, Description: PFC CS3 17 G2829




13C6-PFDA



## 13C7-PFUnA




| Dataset: | U:\Q4.PRO\results\170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_8, Date: 28-Jul-2017, Time: 17:24:53, ID: ST170728M2-7 PFC CS4 17G2830, Description: PFC CS4 17 G2830


13C3-PFBA



13C3-PFPeA



13C3-PFBS


PFHxA


13C2-PFHxA


| Dataset: | U:IQ4.PRO\results1170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_8, Date: 28-Jul-2017, Time: 17:24:53, ID: ST170728M2-7 PFC CS4 17G2830, Description: PFC CS4 17G2830

## PFHpA



## 13C4-PFHpA





1802-PFHxS




13C2-PFOA


## PFHpS



13C2-PFOA

Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

## Name: 170728M2_8, Date: 28-Jul-2017, Time: 17:24:53, ID: ST170728M2-7 PFC CS4 17G2830, Description: PFC CS4 17G2830



13C5-PFNA


## PFOSA



F28:MRM of 2 channels,ES498.1 > 478


13C8-PFOSA


## Total PFOS

| F30:MRM of 2 channels,ES- |
| :---: |
| $499>79.9$ |
| $4.872 \mathrm{e}+005$ |
| 100 |



13C8-PFOS


PFDA


35:MRM of 2 channels,ES
$513>219$


13C2-PFDA


Dataset: U:IQ4.PRO\results\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_8, Date: 28-Jul-2017, Time: 17:24:53, ID: ST170728M2-7 PFC CS4 17G2830, Description: PFC CS4 17 G2830


d3-N-MeFOSAA



d5-N-EtFOSAA
F49:MRM of 1 channel,ES-





## PFDS



F50:MRM of 2 channels,ES-
$598.9>80$


13C2-PFUnA


| Dataset: | U:IQ4.PRO\results\170728M2\170728M2-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_8, Date: 28-Jul-2017, Time: 17:24:53, ID: ST170728M2-7 PFC CS4 17G2830, Description: PFC CS4 17 G2830


51:MRM of 2 channels,ES$12.9>569$


13C2-PFDoA




13C2-PFDoA



13C2-PFTeDA


13C4-PFBA


13C5-PFHxA


Dataset: U:IQ4.PROIresults|170728M2\170728M2-CRV.qld

| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_8, Date: 28-Jul-2017, Time: 17:24:53, ID: ST170728M2-7 PFC CS4 17G2830, Description: PFC CS4 17G2830


13C4-PFOS


13C2-PFTeDA


13C6-PFDA


13C8-PFOA


13C7-PFUnA


13C9-PFNA


| Dataset: | U:IQ4.PRO\results\170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_9, Date: 28-Jul-2017, Time: 17:35:31, ID: ST170728M2-8 PFC CS5 17G2831, Description: PFC CS5 17 G283


13C3-PFBA



13C3-PFPeA



13C3-PFBS


## PFHxA



F8:MRM of 2 channels,ES
$313.2>119$


13C2-PFHxA

Dataset: U:IQ4.PRO\results\170728M2\170728M2-CRV.qld

Last Altered: $\quad$ Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_9, Date: 28-Jul-2017, Time: 17:35:31, ID: ST170728M2-8 PFC CS5 17G2831, Description: PFC CS5 17 G2831


13C4-PFHpA



1802-PFHxS



13C2-PFOA


## PFHpS



13C2-PFOA


| Dataset: | U:IQ4.PROlresults1170728M21170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_9, Date: 28-Jul-2017, Time: 17:35:31, ID: ST170728M2-8 PFC CS5 17G2831, Description: PFC CS5 17G2831




13C8-PFOSA


Total PFOS



## 13C8-PFOS



PFDA


F35:MRM of 2 channels,ES
$513>219$ $9.559 \mathrm{e}+005$


13C2-PFDA


Dataset: U:IQ4.PROIresults\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_9, Date: 28-Jul-2017, Time: 17:35:31, ID: ST170728M2-8 PFC CS5 17G2831, Description: PFC CS5 17G2831


PFUnA



13C2-PFUnA


PFDS


13C2-PFUnA


| Dataset: | U:IQ4.PRO\results\170728M21170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_9, Date: 28-Jul-2017, Time: 17:35:31, ID: ST170728M2-8 PFC CS5 17G2831, Description: PFC CS5 17 G2831


13C2-PFDoA




13C2-PFDoA



13C2-PFTeDA



13C5-PFHxA


| Dataset: | U:IQ4.PRO\results\170728M2\170728M2-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_9, Date: 28-Jul-2017, Time: 17:35:31, ID: ST170728M2-8 PFC CS5 17G2831, Description: PFC CS5 17G2831


## Dataset: U:IQ4.PRO\results\170728M2\170728M2-CRV.qld

Last Altered: $\quad$ Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_10, Date: 28-Jul-2017, Time: 17:46:09, ID: ST170728M2-9 PFC CS6 17G2801, Description: PFC CS5 17G2801


Vista Analytical Laboratory
Dataset: U:IQ4.PROVresults\170728M21170728M2-CRV.qld
Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_10, Date: 28-Jul-2017, Time: 17:46:09, ID: ST170728M2-9 PFC CS6 17G2801, Description: PFC CS5 17 G2801


13C4-PFHpA




1802-PFHxS



13C2-PFOA


## PFHpS




13C2-PFOA

Dataset: U:\Q4.PRO\results\170728M2\170728M2-CRV.qld

Last Altered: $\quad$ Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time

Name: 170728M2_10, Date: 28-Jul-2017, Time: 17:46:09, ID: ST170728M2-9 PFC CS6 17G2801, Description: PFC CS5 17G2801

Last Altered: Sunday, July 30, 2017 08:05:03 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:05:49 Pacific Daylight Time


| Dataset: | U:IQ4.PRO\results\170728M2\170728M2-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_10, Date: 28-Jul-2017, Time: 17:46:09, ID: ST170728M2-9 PFC CS6 17G2801, Description: PFC CS5 17 G2801


| Dataset: | U:IQ4.PROlresults\170728M2\170728M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:05:03 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:05:49 Pacific Daylight Time |

Name: 170728M2_10, Date: 28-Jul-2017, Time: 17:46:09, ID: ST170728M2-9 PFC CS6 17G2801, Description: PFC CS5 17G2801


13C4-PFOS



13C6-PFDA



13C7-PFUnA



Last Altered: Sunday, July 30, 2017 08:15:10 Pacific Daylight Time
Printed:
Sunday, July 30, 2017 08:16:04 Pacific Daylight Time

## Method: U:IQ4.PROIMethDBIPFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19


Name: 170728M2_13, Date: 28-Jul-2017, Time: 18:18:40, ID: SS170728M2-1 PFC SSS 17G2823, Description: PFC SSS 17G2823


| Dataset: | U:IQ4.PROIresults1170728M21170728M2-13.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:15:10 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:16:04 Pacific Daylight Time |

Name: 170728M2_13, Date: 28-Jul-2017, Time: 18:18:40, ID: SS170728M2-1 PFC SSS 17G2823, Description: PFC SSS 17G2823

|  | \# Name | Trace | Area | IS Resp | RRF | Wt/Vol RT Conc \%Rec |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32. | $32 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 12473.139 | 56361.164 | 0.018 | 1.000 | 4.05 | 155.65 | 95.79 |
| 33. | 33 13C2-PFUnA | $565>519.8$ | 63778.582 | 56361.164 | 1.129 | 1.000 | 4.12 | 12.53 | 100.21 |
| 34.4 | 34 13C2-PFDoA | $615>569.7$ | 6412.423 | 56361.164 | 0.116 | 1.000 | 4.28 | 12.26 | 98.07 |
| 35. | 35 13C2-PFTeDA | $714.8>669.6$ | 42185.617 | 56361.164 | 0.762 | 1.000 | 4.63 | 12.28 | 98.21 |
|  | 36 13C4-PFBA | $217>171.8$ | 13338.616 | 13338.616 | 1.000 | 1.000 | 1.37 | 12.50 | 100.00 |
| 37.4 | 37 13C5-PFHxA | $318>272.9$ | 41541.566 | 41541.566 | 1.000 | 1.000 | 3.15 | 5.00 | 100.00 |
| 38. | 38 13C3-PFHxS | $401.9>79.9$ | 7683.510 | 7683.510 | 1.000 | 1.000 | 3.49 | 12.50 | 100.00 |
| 39. | 39 13C8-PFOA | $421.3>376$ | 47325.004 | 47325.004 | 1.000 | 1.000 | 3.61 | 12.50 | 100.00 |
| 40 \% | 40 13C9-PFNA | $472.2>426.9$ | 52466.008 | 52466.008 | 1.000 | 1.000 | 3.79 | 12.50 | 100.00 |
| 41 | 41 13C4-PFOS | $503>79.9$ | 8480.035 | 8480.035 | 1.000 | 1.000 | 3.84 | 12.50 | 100.00 |
| 42. | 42 13C6-PFDA | $519.1>473.7$ | 53553.129 | 53553.129 | 1.000 | 1.000 | 3.96 | 12.50 | 100.00 |
| 43. | 43 13C7-PFUnA | $570.1>524.8$ | 56361.164 | 56361.164 | 1.000 | 1.000 | 4.13 | 12.50 | 100.00 |

## Dataset: U:IQ4.PROTresults|170728M2\170728M2-13.qld

Last Altered: Sunday, July 30, 2017 08:15:10 Pacific Daylight Time
Printed: Sunday, July 30, 2017 08:15:41 Pacific Daylight Time

Method: U:IQ4.PROIMethDBIPFAS_L17_L14_7-27-17.mdb 30 Jul 2017 07:47:21

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-28-17-L14_L17.cdb 30 Jul 2017 08:10:19

Name: 170728M2_13, Date: 28-Jul-2017, Time: 18:18:40, ID: SS170728M2-1 PFC SSS 17G2823, Description: PFC SSS 17G2823


13C3-PFBA



13C3-PFPeA




13C3-PFBS


## PFHXA



13C2-PFHxA


| Dataset: | U:\Q4.PRO\results\170728M2\170728M2-13.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:15:10 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:15:41 Pacific Daylight Time |

## Name: 170728M2_13, Date: 28-Jul-2017, Time: 18:18:40, ID: SS170728M2-1 PFC SSS 17G2823, Description: PFC SSS 17 G2823



13C4-PFHpA



1802-PFHxS



13C2-PFOA


PFHpS


| Dataset: | U:IQ4.PROIresults1170728M21170728M2-13.qld |
| :--- | :--- |
| Last Altered: | Sunday, July 30, 2017 08:15:10 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:15:41 Pacific Daylight Time |

Name: 170728M2_13, Date: 28-Jul-2017, Time: 18:18:40, ID: SS170728M2-1 PFC SSS 17G2823, Description: PFC SSS 17G2823



13C5-PFNA



13C8-PFOSA


## Total PFOS



F30:MRM of 2 channels,ES
$499>99$


13C8-PFOS



13C2-PFDA

Dataset: U:IQ4.PROIresults1170728M21170728M2-13.qld

Last Altered: Sunday, July 30, 2017 08:15:10 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:15:41 Pacific Daylight Time

## Name: 170728M2_13, Date: 28-Jul-2017, Time: 18:18:40, ID: SS170728M2-1 PFC SSS 17G2823, Description: PFC SSS 17G2823


d3-N-MeFOSAA


d5-N-EtFOSAA




13C2-PFUnA


PFDS
F50:MRM of 2 channels,ES-
$598.9>98.7$


13C2-PFUnA


Vista Analytical Laboratory

| Dataset: | U:IQ4.PRO\results\170728M2\170728M2-13.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Sunday, July 30, 2017 08:15:10 Pacific Daylight Time |
| Printed: | Sunday, July 30, 2017 08:15:41 Pacific Daylight Time |



## Dataset: U:\Q4.PRO\results\170728M2\170728M2-13.qld

Last Altered: $\quad$ Sunday, July 30, 2017 08:15:10 Pacific Daylight Time
Printed: $\quad$ Sunday, July 30, 2017 08:15:41 Pacific Daylight Time

## Name: 170728M2_13, Date: 28-Jul-2017, Time: 18:18:40, ID: SS170728M2-1 PFC SSS 17G2823, Description: PFC SSS 17 G2823



Dataset:
U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:16:34 Pacific Daylight Time $\qquad$

Method: U:IQ4.PROMMethDBIPFAS_FULL_7-20-17.mdb 01 Aug 2017 09:55:07
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08

## Compound name: PFBA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999898$
Calibration curve: $6.26653 \mathrm{e}-005^{*} x^{\wedge} 2+1.07835{ }^{*} x+0.0734459$
Response type: Internal Std (Ref 28 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Ematd Std. Conc | RT | Area | 15 Area | Response | Cor | \%Dev |  | CoD | DFl | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4. | 1 170731M2_2 | Standard | 0.250 | 1.41 | 411.114 | 13874.437 | 0.370 | 0.3 | 10.1 | NO | 1.000 | NO | MM |
| $2=84$ | 2 170731M2_3 | Standard | 0.500 | 1.40 | 713.007 | 14032.984 | 0.635 | 0.5 | 4.2 | NO | 1.000 | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 1.000 | 1.39 | 1410.952 | 14534.191 | 1.213 | 1.1 | 5.7 | NO | 1.000 | NO | bb |
|  | 4 170731M2_5 | Standard | 2.000 | 1.41 | 2604.108 | 13825.355 | 2.354 | 2.1 | 5.8 | NO | 1.000 | NO | bb |
| 5 \% \% | 5 170731M2_6 | Standard | 5.000 | 1.40 | 6507.126 | 14375.643 | 5.658 | 5.2 | 3.5 | NO | 1.000 | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 10.000 | 1.40 | 12186.419 | 14275.662 | 10.671 | 9.8 | -1.8 | NO | 1.000 | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 50.000 | 1.40 | 60399.383 | 13941.181 | 54.156 | 50.0 | 0.0 | NO | 1.000 | NO | bb |
| $8 \%$ | 8 170731M2_9 | Standard | 100.000 | 1.40 | 122688.352 | 14182.987 | 108.130 | 99.6 | -0.4 | NO | 1.000 | NO | bb |
| 9 mbx | $9170731 \mathrm{M} 2 \ldots 10$ | Standard | 250.000 | 1.41 | 444076.063 | 20278.131 | 273.741 | 250.1 | 0.1 | NO | 1.000 | NO | bb |

## Compound name: PFPeA

Correlation coefficient: $\mathrm{r}=0.999842, \mathrm{r} \wedge=0.999685$
Calibration curve: 0.95207 * $x+0.034134$
Response type: Internal Std ( Ref 29), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | T | Std | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | COD | OF | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| H1 \% | 1 170731M2_2 | Standard | 0.250 | 2.69 | 567.060 | 28315.961 | 0.250 | 0.2 | -9.2 | NO | 1.000 | NO | MM |
| $2+4$ | 2 170731M2_3 | Standard | 0.500 | 2.69 | 1149.332 | 28971.373 | 0.496 | 0.5 | -3.0 | NO | 1.000 | NO | bb |
| 3. ${ }^{\text {atim }}$ | 3 170731M2_4 | Standard | 1.000 | 2.69 | 2381.328 | 29344.844 | 1.014 | 1.0 | 3.0 | NO | 1.000 | NO | bb |
| 4.3.3.3 | 4 170731M2_5 | Standard | 2.000 | 2.70 | 4632.085 | 27224.277 | 2.127 | 2.2 | 9.9 | NO | 1.000 | NO | MM |
| $5$ | 5 170731M2_6 | Standard | 5.000 | 2.69 | 11287.421 | 28900.883 | 4.882 | 5.1 | 1.8 | NO | 1.000 | NO | MM |
| $6$ | 6170731 M 2 _7 | Standard | 10.000 | 2.69 | 22284.025 | 28928.092 | 9.629 | 10.1 | 0.8 | NO | 1.000 | NO | bb |
| $7=$ | 7 170731M2_8 | Standard | 50.000 | 2.69 | 101931.336 | 27958.209 | 45.573 | 47.8 | -4.3 | NO | 1.000 | NO | MM |
| 8. ${ }^{\text {8. }}$ | 8 170731M2_9 | Standard | 100.000 | 2.70 | 209969.516 | 27418.373 | 95.725 | 100.5 | 0.5 | NO | 1.000 | NO | MM |
| 94.4. | 9 170731M2_10 | Standard | 250.000 | 2.70 | 777214.313 | 40599.961 | 239.290 | 251.3 | 0.5 | NO | 1.000 | NO | MM |

Work Order 1700871

Dataset: U:\Q4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:16:34 Pacific Daylight Time

## Compound name: PFBS

Correlation coefficient: $\mathrm{r}=0.999700, \mathrm{r}^{\wedge} 2=0.999400$
Calibration curve: 1.88408 * x +0.0670139
Response type: Internal Std ( Ref 30 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFHxA

Correlation coefficient: $\mathrm{r}=0.999770, \mathrm{r}^{\wedge} 2=0.999541$
Calibration curve: $1.38743 * x+0.151774$
Response type: Internal Std (Ref 31 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/X, Axis trans: None

| $\sqrt{1+2 m y s}$ | \# Name | Type | Std. Conc |  | W Are | - | sponse | Conc | , | nc. $F$ | OD | 0 E | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170731M2_2 | Standard | 0.250 | 3.17 | 1105.240 | 13289.316 | 0.416 | 0.2 | -23.9 | NO | 1.000 | NO | bb |
| 2.4 | 2 170731M2_3 | Standard | 0.500 | 3.17 | 2259.732 | 13996.411 | 0.807 | 0.5 | -5.5 | NO | 1.000 | NO | bb |
| 3.45 | 3 170731M2_4 | Standard | 1.000 | 3.16 | 4555.615 | 13471.391 | 1.691 | 1.1 | 10.9 | NO | 1.000 | NO | bb |
| 4 | 4 170731M2_5 | Standard | 2.000 | 3.16 | 8364.676 | 13180.728 | 3.173 | 2.2 | 8.9 | NO | 1.000 | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 5.000 | 3.16 | 21557.746 | 14300.003 | 7.538 | 5.3 | 6.5 | NO | 1.000 | NO | bb |
| 6. 4 | $6170731 \mathrm{M} 2 \_7$ | Standard | 10.000 | 3.16 | 38887.297 | 13464.359 | 14.441 | 10.3 | 3.0 | NO | 1.000 | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 50.000 | 3.17 | 186053.391 | 13579.439 | 68.506 | 49.3 | -1.5 | NO | 1.000 | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 100.000 | 3.16 | 370981.719 | 13004.882 | 142.632 | 102.7 | 2.7 | NO | 1.000 | NO | bb |
| 9. | $9170731 \mathrm{M} 2 \ldots 10$ | Standard | 250.000 | 3.16 | 1637628.125 | 23861.670 | 343.150 | 247.2 | -1.1 | NO | 1.000 | NO | bb |

Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:16:34 Pacific Daylight Time

## Compound name: PFHpA

Correlation coefficient: $\mathrm{r}=0.999907, \mathrm{r}^{\wedge} 2=0.999814$
Calibration curve: 1.19527 * x +0.0770691
Response type: Internal Std (Ref 32 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| - | \# Name | Type | Std. Conc | RT | 2) Area | IS Ärea | Response | Conc. | \%Dev | Conc. Fiag | COD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4 | 1 170731M2_2 | Standard | 0.250 | 3.43 | 1188.512 | 42267.941 | 0.351 | 0.2 | -8.2 | NO | 1.000 | NO | bb |
| 2 | 2 170731M2_3 | Standard | 0.500 | 3.43 | 2346.575 | 44035.770 | 0.666 | 0.5 | -1.4 | NO | 1.000 | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 1.000 | 3.43 | 4665.274 | 47111.973 | 1.238 | 1.0 | -2.9 | NO | 1.000 | NO | bb |
| $4 \times 1$ | 4 170731M2_5 | Standard | 2.000 | 3.43 | 8684.659 | 40041.188 | 2.711 | 2.2 | 10.2 | No | 1.000 | NO | bb |
| $5-$ | 5 170731M2_6 | Standard | 5.000 | 3.43 | 22188.094 | 43531.445 | 6.371 | 5.3 | 5.3 | NO | 1.000 | NO | bb |
| 6.5 | 6 170731M2_7 | Standard | 10.000 | 3.43 | 39873.324 | 41835.402 | 11.914 | 9.9 | -1.0 | NO | 1.000 | NO | bb |
| 7.4 | 7 170731M2_8 | Standard | 50.000 | 3.43 | 198036.984 | 42486.371 | 58.265 | 48.7 | -2.6 | NO | 1.000 | NO | bb |
| 8 | 8 170731M2_9 | Standard | 100.000 | 3.43 | 391289.031 | 40762.777 | 119.990 | 100.3 | 0.3 | NO | 1.000 | NO | bb |
| 9.1 | 9 170731M2_10 | Standard | 250.000 | 3.43 | 1450839.000 | 60510.934 | 299.706 | 250.7 | 0.3 | NO | 1.000 | NO | bb |

## Compound name: PFHxS

Correlation coefficient: $\mathrm{r}=0.998411, \mathrm{r}^{\wedge} 2=0.996824$
Calibration curve: 1.6806 * x + 0.0313148
Response type: Internal Std ( Ref 33 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name |  | Std Conc | RT Area ${ }^{\text {a }}$ AS Area |  |  | sponse | Conc. $\%$ Dey Conc. Flag . CoD |  |  |  | Cob Flag * *-6xcluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170731M2_2 | Standard | 0.250 | 3.50 | 136.913 | 4105.498 | 0.417 | 0.2 | -8.2 | NO | 0.997 | NO | MM |
| 2 Wimis | 2 170731M2_3 | Standard | 0.500 | 3.51 | 320.409 | 4057.192 | 0.987 | 0.6 | 13.8 | NO | 0.997 | NO | MM |
| 3.4 | 3 170731M2_4 | Standard | 1.000 | 3.51 | 503.736 | 4402.638 | 1.430 | 0.8 | -16.8 | NO | 0.997 | NO | MM |
| 4 | 4 170731M2_5 | Standard | 2.000 | 3.50 | 1217.100 | 3891.568 | 3.909 | 2.3 | 15.4 | NO | 0.997 | NO | bb |
| $5$ | $5170731 \mathrm{M} 2 \_6$ | Standard | 5.000 | 3.51 | 2734.810 | 3878.935 | 8.813 | 5.2 | 4.5 | NO | 0.997 | NO | MM |
| $6$ | 6 170731M2_7 | Standard | 10.000 | 3.50 | 5376.990 | 3978.140 | 16.895 | 10.0 | 0.3 | NO | 0.997 | NO | bb |
| 74 | 7 170731M2_8 | Standard | 50.000 | 3.50 | 25163.787 | 3932.861 | 79.979 | 47.6 | -4.9 | NO | 0.997 | NO | db |
| 8. ${ }^{\text {a }}$ | 8 170731M2_9 | Standard | 100.000 | 3.51 | 51344.988 | 4159.138 | 154.314 | 91.8 | -8.2 | NO | 0.997 | NO | db |
| $9{ }^{-3+4}$ | 9 170731M2_10 | Standard | 250.000 | 3.51 | 172302.625 | 4925.332 | 437.287 | 260.2 | 4.1 | NO | 0.997 | NO | bb |


| Dataset: | U:IQ4.PRO\results\170731M2\170731M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:16:34 Pacific Daylight Time |

## Compound name: 6:2 FTS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999797$
Calibration curve: -0.00364043 * $x^{\wedge} 2+1.16681$ * $x+-0.0592153$
Response type: Internal Std (Ref 34 ), 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 | nc. | Cob | F | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 . ${ }^{\text {a }}$ | 1 170731M2_2 | Standard | 0.250 | 3.63 | 177.680 | 9927.280 | 0.224 | 0.2 | -2.9 | NO | 1.000 | NO | bb |
| 2 | 2 170731M2_3 | Standard | 0.500 | 3.63 | 478.991 | 10315.116 | 0.580 | 0.5 | 9.8 | NO | 1.000 | NO | bb |
| 3 , | 3 170731M2_4 | Standard | 1.000 | 3.63 | 943.278 | 11541.11¢ | 1.022 | 0.9 | -7.1 | NO | 1.000 | NO | bb |
| $4.4=$ | 4 170731M2_5 | Standard | 2.000 | 3.63 | 1822.126 | 10131.339 | 2.248 | 2.0 | -0.5 | NO | 1.000 | NO | bb |
| 5 \% | 5 170731M2_6 | Standard | 5.000 | 3.62 | 4473.807 | 9593.972 | 5.829 | 5.1 | 2.6 | NO | 1.000 | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 10.000 | 3.62 | 8896.104 | 10116.732 | 10.992 | 9.8 | -2.3 | NO | 1.000 | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 50.000 | 3.63 | 38899.715 | 9833.309 | 49.449 | 50.3 | 0.7 | NO | 1.000 | NO | bb |
| 8 - ${ }^{\text {a }}$ | 8 170731M2_9 | Standard | 100.000 | 3.63 | 74054.742 | 11556.366 | 80.102 | 99.7 | -0.3 | NO | 1.000 | NO | bb |
|  | 9 170731M2_10 | Standard | 250.000 | 3.63 | 204101.719 | 18952.229 | 134.616 |  |  | NO | 1.000 | NO | bbXI |

## Compound name: PFOA

Correlation coefficient: $\mathrm{r}=0.999910, \mathrm{r}^{\wedge} 2=0.999821$
Calibration curve: 0.953928 * x + 0.14566
Response type: Internal Std (Ref 35 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name U Type Std Conc |  |  | RT Area IS Area Response Conc. \%Dev, Conc. Flag |  |  |  |  |  |  | CoD ${ }^{\text {cob Flag }}$ : $=$-xcluded |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1=4$ | 1 170731M2_2 | Standard | 0.250 | 3.64 | 1648.688 | 63401.359 | 0.325 | 0.2 | -24.8 | NO | 1.000 | NO | MM |
| 2.4 | 2 170731M2_3 | Standard | 0.500 | 3.64 | 3703.540 | 67191.539 | 0.689 | 0.6 | 13.9 | NO | 1.000 | NO | bb |
| 3. | 3 170731M2_4 | Standard | 1.000 | 3.63 | 6322.338 | 70281.578 | 1.124 | 1.0 | 2.6 | NO | 1.000 | NO | bb |
|  | 4 170731M2_5 | Standard | 2.000 | 3.63 | 11893.063 | 66790.375 | 2.226 | 2.2 | 9.0 | NO | 1.000 | NO | bb |
| 5.4 | 5 170731M2_6 | Standard | 5.000 | 3.64 | 25166.590 | 63977.652 | 4.917 | 5.0 | 0.0 | NO | 1.000 | NO | bb |
| 6.4 | 6 170731M2_7 | Standard | 10.000 | 3.64 | 51478.270 | 67944.383 | 9.471 | 9.8 | -2.2 | NO | 1.000 | NO | bb |
|  | 7 170731M2_8 | Standard | 50.000 | 3.64 | 233790.078 | 59813.004 | 48.859 | 51.1 | 2.1 | NO | 1.000 | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 100.000 | 3.64 | 508100.156 | 66783.320 | 95.102 | 99.5 | -0.5 | NO | 1.000 | NO | bb |
| 9 9 | $9170731 \mathrm{M} 2 \_10$ | Standard | 250.000 | 3.64 | 1538457.125 | 80782.586 | 238.055 | 249.4 | -0.2 | NO | 1.000 | NO | bb |


| Quantify Compound Summary Report MassLynx MassLynx V4.1 S |
| :--- |
| Vista Analytical Laboratory |
| Dataset: |
|  |
| U:IQ4.PROIresults\170731M21170731M2-CRV.qld |
| Last Altered: |
| Printed: |

## Compound name: PFHpS

Correlation coefficient: $\mathrm{r}=0.999006, \mathrm{r}^{\wedge} 2=0.998013$
Calibration curve: 0.0861619 * $x+0.0071876$
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


## Compound name: PFNA

Correlation coefficient: $\mathrm{r}=0.999697, \mathrm{r}^{\wedge} 2=0.999394$
Calibration curve: $1.08541^{*} x+0.0735739$
Response type: Internal Std ( Ref 36 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | A | IS Are | sponse | Con | Dev | c | CoD | OF | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U Wimum | 1 170731M2_2 | Standard | 0.250 | 3.81 | 1389.836 | 54018.730 | 0.322 | 0.2 | -8.6 | NO | 0.999 | NO | bb |
| 2 | 2 170731M2_3 | Standard | 0.500 | 3.82 | 3272.709 | 62262.660 | 0.657 | 0.5 | 7.5 | NO | 0.999 | NO | bb |
| 3 3 | 3 170731M2_4 | Standard | 1.000 | 3.81 | 5627.537 | 61609.746 | 1.142 | 1.0 | -1.6 | NO | 0.999 | NO | bb |
| $4{ }^{3}$ | 4 170731M2_5 | Standard | 2.000 | 3.81 | 10519.000 | 57196.430 | 2.299 | 2.1 | 2.5 | NO | 0.999 | NO | bb |
| $5 \cdot \mathrm{HL}=$ | 5 170731M2_6 | Standard | 5.000 | 3.82 | 23937.521 | 55674.484 | 5.374 | 4.9 | -2.3 | NO | 0.999 | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 10.000 | 3.82 | 53188.000 | 59478.996 | 11.178 | 10.2 | 2.3 | NO | 0.999 | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 50.000 | 3.81 | 232756.781 | 51828.512 | 56.136 | 51.7 | 3.3 | NO | 0.999 | NO | bb |
| 8. | 8 170731M2_9 | Standard | 100.000 | 3.81 | 446148.219 | 53481.383 | 104.277 | 96.0 | -4.0 | NO | 0.999 | NO | bb |
| 9 9-5\% | $9170731 \mathrm{M} 2 \_10$ | Standard | 250.000 | 3.82 | 1433063.500 | 65426.449 | 273.793 | 252.2 | 0.9 | NO | 0.999 | NO | bb |

## Vista Analytical Laboratory

Dataset:
U:\Q4.PRO|results\170731M21170731M2-CRV.qld
Last Altered: $\quad$ Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:16:34 Pacific Daylight Time

## Compound name: PFOSA

Correlation coefficient: $\mathrm{r}=0.999883, \mathrm{r}^{\wedge} 2=0.999766$
Calibration curve: 1.0734 * x + -0.0271184
Response type: Internal Std ( Ref 37 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Fla | + $=$ COD | CoDFlag $\mathrm{X}=$ excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14. | 1 170731M2_2 | Standard | 0.250 | 3.83 | 130.593 | 6628.687 | 0.246 | 0.3 | 1.9 | NO | 1.000 | NO | bb |
| 2 \% | 2 170731M2_3 | Standard | 0.500 | 3.82 | 315.894 | 6757.332 | 0.584 | 0.6 | 13.9 | NO | 1.000 | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 1.000 | 3.83 | 559.472 | 7148.018 | 0.978 | 0.9 | -6.3 | NO | 1.000 | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 2.000 | 3.83 | 1121.168 | 6732.580 | 2.082 | 2.0 | -1.8 | NO | 1.000 | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 5.000 | 3.83 | 2778.576 | 6463.064 | 5.374 | 5.0 | 0.6 | NO | 1.000 | NO | bb |
| $6$ | $6170731 \mathrm{M} 2 \_7$ | Standard | 10.000 | 3.83 | 5384.216 | 6861.386 | 9.809 | 9.2 | -8.4 | NO | 1.000 | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 50.000 | 3.83 | 24500.219 | 5762.874 | 53.142 | 49.5 | -0.9 | NO | 1.000 | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 100.000 | 3.83 | 49243.563 | 5694.701 | 108.091 | 100.7 | 0.7 | NO | 1.000 | NO | bb |
| 94.4 | 9 170731M2_10 | Standard | 250.000 | 3.83 | 146323.297 | 6801.088 | 268.934 | 250.6 | 0.2 | NO | 1.000 | NO | bb |

## Compound name: PFOS

Coefficient of Determination: $R^{\wedge} 2=0.999779$
Calibration curve: 0.000313423 * $x^{\wedge} 2+1.01509{ }^{*} x+0.0486823$
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

|  | \# Name | Type ${ }^{\text {d }}$, | Std Conc | RT | Are | IS Area | por | , | Dev | 1c. F | CoD | F | xclu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 170731M2_2 | Standard | 0.250 | 3.86 | 262.377 | 9891.881 | 0.332 | 0.3 | 11.5 | NO | 1.000 | NO | MM |
| 2 - ${ }^{2}$ | 2 170731M2_3 | Standard | 0.500 | 3.87 | 481.675 | 11460.590 | 0.525 | 0.5 | -6.1 | NO | 1.000 | NO | MM |
| 3. | 3 170731M2_4 | Standard | 1.000 | 3.87 | 1088.575 | 11503.416 | 1.183 | 1.1 | 11.7 | NO | 1.000 | NO | MM |
| 4 | 4 170731M2_5 | Standard | 2.000 | 3.87 | 1856.085 | 10201.429 | 2.274 | 2.2 | 9.6 | NO | 1.000 | NO | bb |
| 5 | 5 170731M2_6 | Standard | 5.000 | 3.87 | 4259.738 | 10639.481 | 5.005 | 4.9 | -2.5 | NO | 1.000 | NO | bb |
| 6 \% | 6 170731M2_7 | Standard | 10.000 | 3.87 | 9044.098 | 11768.862 | 9.606 | 9.4 | -6.1 | NO | 1.000 | NO | bb |
| 7 THRE | 7 170731M2_8 | Standard | 50.000 | 3.87 | 41100.910 | 9805.450 | 52.395 | 50.8 | 1.5 | NO | 1.000 | NO | bb |
| 8. Mus | 8 170731M2_9 | Standard | 100.000 | 3.87 | 79111.71 c | 9480.636 | 104.307 | 99.6 | -0.4 | NO | 1.000 | NO | bb |
| $9 \mathrm{MRM}^{\text {a }}$ | 9170731 M 2 _10 | Standard | 250.000 | 3.87 | 250476.469 | 11450.712 | 273.429 | 250.0 | 0.0 | NO | 1.000 | NO | bb |

## Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory
Dataset:
U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:16:34 Pacific Daylight Time

## Compound name: PFDA

Correlation coefficient: $\mathrm{r}=0.999542, \mathrm{r}^{\wedge} 2=0.999084$
Calibration curve: 1.19993 * $x+0.156566$
Response type: Internal Std (Ref 39 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | ame $\quad$ Type |  | Sta Conc |  | Area | . IS Area Response |  | Conc. \% Dev Conc. Flag |  |  |  | - CoD Flag $x=$ excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12: ${ }^{\text {2 }}$ | 1 170731M2_2 | Standard | 0.250 | 3.98 | 1774.405 | 59781.418 | 0.371 | 0.2 | -28.5 | NO | 0.999 | NO | bb |
| $2=0$ | 2 170731M2_3 | Standard | 0.500 | 3.99 | 3704.363 | 61812.703 | 0.749 | 0.5 | -1.2 | NO | 0.999 | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 1.000 | 3.99 | 7125.412 | 54053.125 | 1.648 | 1.2 | 24.3 | NO | 0.999 | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 2.000 | 3.98 | 11131.30C | 56405.016 | 2.467 | 1.9 | -3.7 | NO | 0.999 | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 5.000 | 3.99 | 27851.160 | 53527.699 | 6.504 | 5.3 | 5.8 | NO | 0.999 | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 10.000 | 3.99 | 58244.602 | 58740.922 | 12.394 | 10.2 | 2.0 | NO | 0.999 | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 50.000 | 3.99 | 232759.141 | 46095.934 | 63.118 | 52.5 | 4.9 | NO | 0.999 | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 100.000 | 3.99 | 492152.594 | 53241.500 | 115.547 | 96.2 | -3.8 | NO | 0.999 | NO | bb |
| 9* | $9170731 \mathrm{M} 2 \_10$ | Standard | 250.000 | 3.99 | 1764954.750 | 73276.133 | 301.079 | 250.8 | 0.3 | NO | 0.999 | NO | bb |

## Compound name: 8:2 FTS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999107$
Calibration curve: $-0.00477278{ }^{*} x^{\wedge} 2+1.45357^{*} x+0.0233651$
Response type: Internal Std (Ref 40 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

|  | \# Name |  | Std. Conc0.250 | $R T$ | Area | \% IS Area Response |  | Conc. | \%Dev | Conc. Flag . CoD |  | CoD Flag x-excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170731M2_2 | Standard |  | $3.98$ | 133.416 | 5442.396 | 0.306 | 0.2 | -22.1 | NO | 0.999 | NO | bb |
| 2. \% | 2 170731M2_3 | Standard | 0.500 | 3.99 | 391.677 | 6198.728 | 0.790 | 0.5 | 5.6 | NO | 0.999 | NO | bb |
| 3 L HT | 3 170731M2_4 | Standard | 1.000 | 3.98 | 911.492 | 7001.858 | 1.627 | 1.1 | 10.7 | NO | 0.999 | NO | bb |
| 4. 4 + | 4 170731M2_5 | Standard | 2.000 | 3.98 | 1614.354 | 5984.115 | 3.372 | 2.3 | 16.1 | NO | 0.999 | NO | bb |
| 5. 2 $^{2}$ | 5 170731M2_6 | Standard | 5.000 | 3.98 | 3426.112 | 6043.006 | 7.087 | 4.9 | -1.2 | NO | 0.999 | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 10.000 | 3.98 | 7395.563 | 6710.449 | 13.776 | 9.8 | -2.2 | NO | 0.999 | NO | bb |
|  | 7 170731M2_8 | Standard | 50.000 | 3.98 | 30902.635 | 6400.762 | 60.350 | 49.6 | -0.9 | NO | 0.999 | NO | bb |
| 8 8. ${ }^{\text {a }}$ | 8 170731M2_9 | Standard | 100.000 | 3.98 | 58744.098 | 7501.545 | 97.887 | 100.5 | 0.5 | NO | 0.999 | NO | bb |
| 9.4 | 9 170731M2_10 | Standard | 250.000 | 3.98 | 165445.906 | 12670.185 | 163.224 |  |  | NO | 0.999 | NO | bbXI |

Vista Analytical Laboratory
Dataset:
U:IQ4.PRO|results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:16:34 Pacific Daylight Time

## Compound name: N-MeFOSAA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999795$
Calibration curve: 0.00169243 * $x^{\wedge} 2+17.72144^{*} x+0.975242$
Response type: Internal Std (Ref 41 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc ${ }^{\text {a }}$ RT |  | Area | 15 Area | Response . Conc, \%Dev Conc.Flag |  |  |  | CoD $\quad$ Cod Flag |  | x-excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4.3 | 1 170731M2_2 | Standard | 0.250 | 4.02 | 367.535 | 12318.428 | 4.848 | 0.2 | -12.6 | NO | 1.000 | NO | bb |
| 2 | 2 170731M2_3 | Standard | 0.500 | 4.02 | 784.251 | 14049.963 | 9.071 | 0.5 | -8.6 | NO | 1.000 | NO | bb |
| 3 | 3 170731M2_4 | Standard | 1.000 | 4.02 | 1656.366 | 13356.303 | 20.152 | 1.1 | 8.2 | NO | 1.000 | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 2.000 | 4.02 | 3233.362 | 13264.592 | 39.611 | 2.2 | 9.0 | NO | 1.000 | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 5.000 | 4.02 | 7035.678 | 12616.413 | 90.620 | 5.1 | 1.1 | NO | 1.000 | NO | bb |
| $6$ | $6170731 \mathrm{M} 2 \_7$ | Standard | 10.000 | 4.02 | 15347.673 | 13566.270 | 183.838 | 10.3 | 3.1 | NO | 1.000 | NO | bb |
| $17$ | 7 170731M2_8 | Standard | 50.000 | 4.02 | 69404.688 | 12476.236 | 903.980 | 50.7 | 1.4 | NO | 1.000 | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 100.000 | 4.02 | 135373.609 | 12518.632 | 1757.238 | 98.2 | -1.8 | NO | 1.000 | NO | bb |
| $9: \%$ | $9170731 \mathrm{M} 2 \_10$ | Standard | 250.000 | 4.02 | 419427.906 | 14988.046 | 4547.426 | 250.6 | 0.2 | NO | 1.000 | NO | bb |

## Compound name: N-EtFOSAA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999924$
Calibration curve: $-0.0019298^{*} x^{\wedge} 2+15.4647 * x+-0.327453$
Response type: Internal Std (Ref 42 ), Area * ( IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Dataset:
U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed:
Tuesday, August 01, 2017 10:16:34 Pacific Daylight Time

## Compound name: PFUnA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997941$
Calibration curve: $-3.28617 \mathrm{e}-005{ }^{*} x^{\wedge} 2+0.757566 * x+0.0881327$
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFDS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997578$
Calibration curve: $-4.11818 \mathrm{e}-005^{*} \mathrm{x}^{\wedge} 2+0.0811765{ }^{*} \mathrm{x}+-0.0032981$
Response type: Internal Std ( Ref 43 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170731M2_2 | Standard | 0.250 | 4.20 | 86.193 | 54062.352 | 0.020 | 0.3 | 14.5 | NO | 0.998 | NO | MMX |
| 2 b | 2 170731M2_3 | Standard | 0.500 | 4.21 | 180.557 | 65699.883 | 0.034 | 0.5 | -7.2 | NO | 0.998 | NO | MM |
| $3 \times 1$ | 3 170731M2_4 | Standard | 1.000 | 4.19 | 431.861 | 60141.438 | 0.090 | 1.1 | 14.7 | NO | 0.998 | NO | MM |
| 4 | 4 170731M2_5 | Standard | 2.000 | 4.19 | 842.372 | 62558.703 | 0.168 | 2.1 | 5.8 | NO | 0.998 | NO | bb |
| 5. | 5 170731M2_6 | Standard | 5.000 | 4.20 | 1836.227 | 63691.332 | 0.360 | 4.5 | -10.2 | NO | 0.998 | NO | bb |
| 6 | 6 170731M2_7 | Standard | 10.000 | 4.20 | 4003.412 | 62353.184 | 0.803 | 10.0 | -0.2 | NO | 0.998 | NO | bb |
| 7 | 7 170731M2_8 | Standard | 50.000 | 4.20 | 18296.340 | 63269.566 | 3.615 | 45.6 | -8.7 | NO | 0.998 | NO | bb |
|  | 8 170731M2_9 | Standard | 100.000 | 4.20 | 34524.848 | 52677.117 | 8.193 | 106.7 | 6.7 | NO | 0.998 | NO | bb |
| $9+$ | 9 170731M2_10 | Standard | 250.000 | 4.20 | 104708.711 | 74412.180 | 17.589 | 247.9 | -0.8 | NO | 0.998 | NO | bb |

Dataset:
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## Compound name: PFDoA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999599$
Calibration curve: $-9.87083 \mathrm{e}-006$ * $x^{\wedge} 2+0.940673$ * $x+0.00742583$
Response type: Internal Std (Ref 44 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| 2.43 | \# Name | Type | Std. Conc | RT | Area | IS Area | esponse | Conc. | \%Dev | ne. F | COD | DEF | excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 150 | 1 170731M2_2 | Standard | 0.250 | 4.31 | 97.386 | 6100.251 | 0.200 | 0.2 | -18.3 | NO | 1.000 | NO | MM |
| $2 \cdot 5$ | 2 170731M2_3 | Standard | 0.500 | 4.31 | 297.108 | 6198.730 | 0.599 | 0.6 | 25.8 | NO | 1.000 | No | MM |
| 3. | 3 170731M2_4 | Standard | 1.000 | 4.32 | 486.738 | 6089.570 | 0.999 | 1.1 | 5.4 | NO | 1.000 | NO | bb |
| $4=5$ | 4 170731M2_5 | Standard | 2.000 | 4.31 | 821.016 | 5996.160 | 1.712 | 1.8 | -9.4 | NO | 1.000 | NO | bb |
| 5. | 5 170731M2_6 | Standard | 5.000 | 4.31 | 2199.727 | 5858.786 | 4.693 | 5.0 | -0.4 | No | 1.000 | NO | bb |
| 6 | 6 170731M2_7 | Standard | 10.000 | 4.31 | 4813.721 | 6554.075 | 9.181 | 9.8 | -2.5 | NO | 1.000 | NO | bb |
| $7 \times$ | 7 170731M2_8 | Standard | 50.000 | 4.31 | 20853.395 | 5701.481 | 45.719 | 48.6 | -2.8 | NO | 1.000 | NO | bb |
| $8=4$ | 8 170731M2_9 | Standard | 100.000 | 4.31 | 46647.582 | 6062.306 | 96.184 | 102.4 | 2.4 | NO | 1.000 | NO | bb |
| $9+$ | 9 170731M2_10 | Standard | 250.000 | 4.31 | 145761.844 | 7788.229 | 233.946 | 249.3 | -0.3 | No | 1.000 | No | bb |

## Compound name: N-MeFOSA

Correlation coefficient: $\mathrm{r}=0.998345, \mathrm{r}^{\wedge} 2=0.996693$
Calibration curve: 1.00604 * $x+0.235716$
Response type: Internal Std (Ref 45 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

|  | ame |  |  | RT, Area IS Area Response |  |  |  | Conc. \%Dev Conc. Flag |  |  |  | CoD Flag $x=$ excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4.4. | 1 170731M2_2 | Standard | 1.250 | 4.35 | 171.072 | 22996.787 | 1.116 | 0.9 | -30.0 | NO | 0.997 | NO | MM |
| $2$ | 2 170731M2_3 | Standard | 2.500 | 4.34 | 482.139 | 25726.459 | 2.811 | 2.6 | 2.4 | NO | 0.997 | NO | bb |
|  | 3 170731M2_4 | Standard | 5.000 | 4.34 | 982.633 | 25550.789 | 5.769 | 5.5 | 10.0 | NO | 0.997 | NO | bb |
| 4.3 | 4 170731M2_5 | Standard | 10.000 | 4.34 | 1926.980 | 24786.727 | 11.661 | 11.4 | 13.6 | NO | 0.997 | NO | bb |
| 5. F (1) | 5 170731M2_6 | Standard | 25.000 | 4.34 | 4419.905 | 23582.914 | 28.113 | 27.7 | 10.8 | NO | 0.997 | NO | bb |
| $6$ | $6170731 \mathrm{M} 2 \_7$ | Standard | 50.000 | 4.35 | 8956.011 | 26155.398 | 51.362 | 50.8 | 1.6 | NO | 0.997 | NO | db |
| $7$ | 7 170731M2_8 | Standard | 250.000 | 4.34 | 42345.395 | 23085.887 | 275.138 | 273.3 | 9.3 | NO | 0.997 | NO | db |
|  | 8 170731M2_9 | Standard | 500.000 | 4.35 | 84341.039 | 23835.992 | 530.759 | 527.3 | 5.5 | NO | 0.997 | NO | bb |
| 9 | $9170731 \mathrm{M} 2 \_10$ | Standard | 1250.000 | 4.35 | 300837.125 | 37548.465 | 1201.795 | 1194.3 | -4.5 | NO | 0.997 | NO | bb |

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## Compound name: PFTrDA

Correlation coefficient: $\mathrm{r}=0.999725, \mathrm{r}^{\wedge} 2=0.999450$
Calibration curve: 10.3774 * $x+1.19316$
Response type: Internal Std ( Ref 44 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | 4 Area | Vin IS Area | Response | Conc. | \%Dev | Conc. Fla | CoD | Cob Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 1 | 1 170731M2_2 | Standard | 0.250 | 4.48 | 1546.429 | 6100.251 | 3.169 | 0.2 | -23.8 | No | 0.999 | NO | bb |
| 2 2 | 2 170731M2_3 | Standard | 0.500 | 4.49 | 3084.918 | 6198.730 | 6.221 | 0.5 | -3.1 | NO | 0.999 | NO | bb |
| 3. | 3 170731M2_4 | Standard | 1.000 | 4.49 | 6341.854 | 6089.570 | 13.018 | 1.1 | 13.9 | NO | 0.999 | NO | bb |
| 4 | 4 170731M2_5 | Standard | 2.000 | 4.48 | 11501.922 | 5996.160 | 23.978 | 2.2 | 9.8 | NO | 0.999 | NO | bb |
| 5.5 | 5 170731M2_6 | Standard | 5.000 | 4.48 | 25400.311 | 5858.786 | 54.193 | 5.1 | 2.1 | NO | 0.999 | NO | bb |
| $6.3-2$ | 6 170731M2_7 | Standard | 10.000 | 4.49 | 54547.922 | 6554.075 | 104.034 | 9.9 | -0.9 | NO | 0.999 | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 50.000 | 4.48 | 247945.563 | 5701.481 | 543.599 | 52.3 | 4.5 | NO | 0.999 | NO | bb |
| 8 | 8 170731M2_9 | Standard | 100.000 | 4.48 | 490967.313 | 6062.306 | 1012.336 | 97.4 | -2.6 | NO | 0.999 | NO | bb |
| 9 | 9 170731M2_10 | Standard | 250.000 | 4.49 | 1617289.125 | 7788.229 | 2595.727 | 250.0 | 0.0 | NO | 0.999 | NO | bb |

## Compound name: PFTeDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999821$
Calibration curve: $-0.000206845^{*} x^{\wedge} 2+1.07301 * x+0.115151$
Response type: Internal Std ( Ref 46 ), Area * (IS Conc. /IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name Tupe Sta Conc Area |  |  |  |  | IS Area | Response Conc. \% Dev Conc. Flag CoD CoD Flag. x-excluded |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170731M2_2 | Standard | 0.250 | 4.66 | 1070.982 | 38964.742 | 0.344 | 0.2 | -14.8 | NO | 1.000 | NO | bb |
| 2.4 | 2 170731M2_3 | Standard | 0.500 | 4.66 | 2242.796 | 43108.695 | 0.650 | 0.5 | -0.2 | NO | 1.000 | NO | db |
| $3$ | 3 170731M2_4 | Standard | 1.000 | 4.66 | 4228.840 | 43416.883 | 1.218 | 1.0 | 2.8 | NO | 1.000 | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 2.000 | 4.66 | 8124.685 | 42363.957 | 2.397 | 2.1 | 6.4 | NO | 1.000 | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 5.000 | 4.66 | 18184.229 | 38970.395 | 5.833 | 5.3 | 6.7 | NO | 1.000 | NO | bb |
| $6$ | $6170731 \mathrm{M} 2 \_7$ | Standard | 10.000 | 4.66 | 36936.945 | 42258.219 | 10.926 | 10.1 | 0.9 | NO | 1.000 | NO | bb |
| 7 | 7 170731M2_8 | Standard | 50.000 | 4.66 | 166736.000 | 40066.441 | 52.019 | 48.8 | -2.3 | NO | 1.000 | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 100.000 | 4.66 | 335759.844 | 39581.660 | 106.034 | 100.7 | 0.7 | NO | 1.000 | NO | bb |
| $9{ }^{9}$ | 9170731 M 2 _10 | Standard | 250.000 | 4.67 | 1095646.375 | 53624.324 | 255.399 | 250.0 | -0.0 | NO | 1.000 | NO | bb |

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## Compound name: N-EtFOSA

Correlation coefficient: $\mathrm{r}=0.999415, \mathrm{r}^{\wedge} 2=0.998831$
Calibration curve: 0.921854 * $x+0.382781$
Response type: Internal Std ( Ref 47 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| +3, | \# Name | Type ${ }^{\text {a }}$, | 4 | Std Conc |  | - Area | 15 Area | Response | Conc. | \%Dev | Conc. Flag | COD | CoD Flag | $x=$ exduded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 - | 1 170731M2_2 | Standard |  | 1.250 | 4.92 | 281.374 | 32355.941 | 1.304 | 1.0 | -20.0 | No | 0.999 | NO | bb |
| $2+4.4$ | 2 170731M2_3 | Standard |  | 2.500 | 4.93 | 566.467 | 35601.133 | 2.387 | 2.2 | -13.0 | NO | 0.999 | NO | bb |
| 3 3 | 3 170731M2_4 | Standard |  | 5.000 | 4.93 | 1233.600 | 34205.117 | 5.410 | 5.5 | 9.1 | NO | 0.999 | NO | bb |
| $4+2$ | 4 170731M2_5 | Standard |  | 10.000 | 4.92 | 2359.483 | 33521.320 | 10.558 | 11.0 | 10.4 | NO | 0.999 | NO | bb |
| 5 | 5 170731M2_6 | Standard |  | 25.000 | 4.92 | 5411.886 | 32043.641 | 25.334 | 27.1 | 8.3 | NO | 0.999 | NO | db |
| $6-2$ | 6 170731M2_7 | Standard |  | 50.000 | 4.93 | 10900.199 | 34405.922 | 47.522 | 51.1 | 2.3 | NO | 0.999 | NO | bb |
| 7 | 7 170731M2_8 | Standard |  | 250.000 | 4.92 | 50732.695 | 32776.059 | 232.179 | 251.4 | 0.6 | NO | 0.999 | NO | db |
| $8 \leqslant 4$ | 8 170731M2_9 | Standard |  | 500.000 | 4.92 | 104693.227 | 32444.443 | 484.027 | 524.6 | 4.9 | NO | 0.999 | NO | bb |
| $9 \times 1$ | 9 170731M2_10 | Standard |  | 1250.000 | 4.93 | 373166.781 | 49761.906 | 1124.857 | 1219.8 | -2.4 | NO | 0.999 | NO | db |

## Compound name: PFHxDA

Coefficient of Determination: $R^{\wedge} 2=0.999687$
Calibration curve: $-0.000332417{ }^{*} x^{\wedge} 2+1.25821^{*} x+0.243616$
Response type: Internal Std (Ref 48 ), Area * (IS Conc. /IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


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## Compound name: PFODA

Correlation coefficient: $r=0.998537, r^{\wedge} 2=0.997077$
Calibration curve: 1.12504 * x + 0.153988
Response type: Internal Std ( Ref 48 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area, | IS Area | Response | Conc | Dev | Conc Flag | COD | F | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \times$ W | 1 170731M2_2 | Standard | 0.250 | 5.40 | 1427.299 | 18578.701 | 0.384 | 0.2 | -18.2 | NO | 0.997 | NO | bb |
| $2 . *$ | 2170731 M 2 _3 | Standard | 0.500 | 5.40 | 3408.691 | 21305.383 | 0.800 | 0.6 | 14.8 | NO | 0.997 | NO | MM |
| 3.4 | 3 170731M2_4 | Standard | 1.000 | 5.40 | 5937.597 | 21093.645 | 1.407 | 1.1 | 11.4 | NO | 0.997 | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 2.000 | 5.40 | 11189.688 | 20624.443 | 2.713 | 2.3 | 13.7 | NO | 0.997 | NO | bb |
| $15$ | 5 170731M2_6 | Standard | 5.000 | 5.40 | 25545.443 | 19494.348 | 6.552 | 5.7 | 13.7 | NO | 0.997 | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 10.000 | 5.40 | 53019.988 | 20781.805 | 12.756 | 11.2 | 12.0 | NO | 0.997 | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 50.000 | 5.40 | 239072.719 | 19811.059 | 60.338 | 53.5 | 7.0 | NO | 0.997 | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 100.000 | 5.40 | 476093.531 | 20275.766 | 117.405 | 104.2 | 4.2 | NO | 0.997 | NO | bb |
| $9$ | $9170731 \mathrm{M} 2 \_10$ | Standard | 250.000 | 5.40 | 1479649.750 | 27386.783 | 270.139 | 240.0 | -4.0 | NO | 0.997 | NO | bb |

## Compound name: N-MeFOSE

Correlation coefficient: $\mathrm{r}=0.999653, \mathrm{r}^{\wedge} 2=0.999306$
Calibration curve: 1.02661 * $x+0.421311$
Response type: Internal Std (Ref 49 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | ype m m at | Std. Conc | RT | Area | IS Area | Response | Conc. | 9 Dev | Conc, Flag | CoD | D F | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4 , | 1 170731M2_2 | Standard | 1.250 | 5.44 | 362.749 | 38065.852 | 1.429 | 1.0 | -21.4 | NO | 0.999 | NO | bb |
|  | 2 170731M2_3 | Standard | 2.500 | 5.44 | 750.944 | 40818.066 | 2.760 | 2.3 | -8.9 | NO | 0.999 | NO | bb |
| 3 | $3170731 \mathrm{M} 2 \_4$ | Standard | 5.000 | 5.44 | 1644.402 | 40754.777 | 6.052 | 5.5 | 9.7 | NO | 0.999 | NO | bb |
| 4 | 4 170731M2_5 | Standard | 10.000 | 5.44 | 3091.344 | 39794.629 | 11.652 | 10.9 | 9.4 | NO | 0.999 | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 25.000 | 5.44 | 6838.694 | 38172.813 | 26.873 | 25.8 | 3.1 | NO | 0.999 | NO | bb |
| 6 6mum | 6170731 M 2 _7 | Standard | 50.000 | 5.44 | 14673.296 | 40819.426 | 53.920 | 52.1 | 4.2 | NO | 0.999 | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 250.000 | 5.44 | 66914.719 | 37733.039 | 266.006 | 258.7 | 3.5 | NO | 0.999 | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 500.000 | 5.44 | 138132.109 | 39369.297 | 526.294 | 512.2 | 2.4 | NO | 0.999 | NO | bb |
| 9 m | $9170731 \mathrm{M} 2 \_10$ | Standard | 1250.000 | 5.45 | 499589.844 | 59556.500 | 1258.275 | 1225.2 | -2.0 | NO | 0.999 | NO | bb |

Vista Analytical Laboratory
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## Compound name: N -EtFOSE

Correlation coefficient: $\mathrm{r}=0.999481, \mathrm{r}^{\wedge} 2=0.998963$
Calibration curve: 1.14913 * $x+1.24499$
Response type: Internal Std (Ref 50 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name - Type |  | Std Conc | RT | ${ }_{4}$ Area | 15 Area | Response | Conc. \%Dev |  | Conc. Flag CoD |  | COD Flag - $x$-excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-7 | 1 170731M2_2 | Standard | 1.250 | 5.62 | 424.316 | 37434.258 | 1.700 | 0.4 | -68.3 | NO | 0.999 | NO | MMX |
| 2 L | 2 170731M2_3 | Standard | 2.500 | 5.62 | 1021.850 | 40953.574 | 3.743 | 2.2 | -13.1 | NO | 0.999 | NO | MM |
| 3 | 3 170731M2_4 | Standard | 5.000 | 5.62 | 1868.327 | 40593.066 | 6.904 | 4.9 | -1.5 | No | 0.999 | NO | bb |
| 4 | 4 170731M2_5 | Standard | 10.000 | 5.62 | 3452.958 | 39083.969 | 13.252 | 10.4 | 4.5 | NO | 0.999 | NO | bb |
| 5 | 5 170731M2_6 | Standard | 25.000 | 5.62 | 7821.364 | 37934.445 | 30.927 | 25.8 | 3.3 | NO | 0.999 | NO | bb |
| 6 \% | 6 170731M2_7 | Standard | 50.000 | 5.62 | 16071.865 | 40396.703 | 59.678 | 50.8 | 1.7 | NO | 0.999 | NO | bb |
| 7 7- | 7 170731M2_8 | Standard | 250.000 | 5.62 | 74830.914 | 37673.949 | 297.942 | 258.2 | 3.3 | NO | 0.999 | NO | bb |
| 8 8- | 8 170731M2_9 | Standard | 500.000 | 5.62 | 156146.688 | 39004.324 | 600.498 | 521.5 | 4.3 | NO | 0.999 | NO | bb |
| $9 \times 4$ | 9 170731M2_10 | Standard | 1250.000 | 5.62 | 563632.000 | 60321.027 | 1401.581 | 1218.6 | -2.5 | NO | 0.999 | NO | bb |

## Compound name: 13C3-PFBA

Response Factor: 1.00566
RRF SD: 0.070969 , Relative SD: 7.05699
Response type: Internal Std (Ref 51 ), Area * (IS Conc. / IS Area )
Curve type: RF

| W. 4 Name + Type | H. Name - Type |  | Std. Conc | RT | Area | IS Area | Response | Conc | D De |  | F | ded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.4 | 1 170731M2_2 | Standard | 12.500 | 1.41 | 13874.437 | 13370.174 | 12.971 | 12.9 | 3.2 | NO | NO | MM |
| 2 | 2 170731M2_3 | Standard | 12.500 | 1.40 | 14032.984 | 14138.808 | 12.406 | 12.3 | -1.3 | NO | NO | bb |
| 3 3 Me | 3 170731M2_4 | Standard | 12.500 | 1.40 | 14534.191 | 13876.813 | 13.092 | 13.0 | 4.1 | NO | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 12.500 | 1.40 | 13825.355 | 13352.213 | 12.943 | 12.9 | 3.0 | NO | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 12.500 | 1.40 | 14375.643 | 13996.207 | 12.839 | 12.8 | 2.1 | NO | NO | bb |
| 6 \% ${ }^{\text {a }}$ | $6170731 \mathrm{M} 2 \_7$ | Standard | 12.500 | 1.40 | 14275.662 | 13824.148 | 12.908 | 12.8 | 2.7 | NO | NO | bb |
| $17$ | 7 170731M2_8 | Standard | 12.500 | 1.40 | 13941.181 | 13506.435 | 12.902 | 12.8 | 2.6 | NO | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 12.500 | 1.40 | 14182.987 | 13834.986 | 12.814 | 12.7 | 1.9 | NO | NO | bb |
| 9.4- | 9 170731M2_10 | Standard | 12.500 | 1.41 | 20278.131 | 24706.939 | 10.259 | 10.2 | -18.4 | NO | NO | bb |

Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
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## Compound name: 13C3-PFPeA

Response Factor: 0.275215
RRF SD: 0.0314917 , Relative SD: 11.4426
Response type: Internal Std (Ref 52 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170731M2_2 | Standard | 12.500 | 2.69 | 28315.961 | 38888.445 | 3.641 | 13.2 | 5.8 | NO | NO | bb |
| 2. | 2 170731M2_3 | Standard | 12.500 | 2.69 | 28971.373 | 39697.934 | 3.649 | 13.3 | 6.1 | NO | NO | MM |
| $3 \quad 1$ | 3 170731M2_4 | Standard | 12.500 | 2.69 | 29344.844 | 39547.027 | 3.710 | 13.5 | 7.8 | NO | NO | MM |
| 4 - 3 2 | 4 170731M2_5 | Standard | 12.500 | 2.69 | 27224.277 | 39438.602 | 3.451 | 12.5 | 0.3 | NO | NO | MM |
| 5 | 5 170731M2_6 | Standard | 12.500 | 2.69 | 28900.883 | 42060.418 | 3.436 | 12.5 | -0.1 | NO | NO | MM |
| 6 \% ${ }^{\text {a }}$ | 6 170731M2_7 | Standard | 12.500 | 2.69 | 28928.092 | 40025.766 | 3.614 | 13.1 | 5.0 | NO | NO | bb |
| 7 | 7 170731M2_8 | Standard | 12.500 | 2.69 | 27958.209 | 39102.801 | 3.575 | 13.0 | 3.9 | NO | NO | MM |
| 8 - | 8 170731M2_9 | Standard | 12.500 | 2.69 | 27418.373 | 39589.105 | 3.463 | 12.6 | 0.7 | NO | NO | MM |
| 9 9+ | 9 170731M2_10 | Standard | 12.500 | 2.70 | 40599.961 | 83770.414 | 2.423 | 8.8 | -29.6 | NO | NO | MM |

## Compound name: 13C3-PFBS

Response Factor: 0.0341202
RRF SD: 0.00479083, Relative SD: 14.041
Response type: Internal Std (Ref 52 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name Type Sta Conc RT Area IS Area |  |  |  |  |  | Response Conc. <br> 0.459 13.4 |  | \%Dev Conc. Flag CoD CoD Flag x $x$-excluded |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1$ | 1 170731M2_2 | Standard | 12.500 | 2.93 | 3567.166 | 38888.445 |  |  | 7.5 | NO | NO | bb |
| $2$ | 2 170731M2_3 | Standard | 12.500 | 2.92 | 3674.875 | 39697.934 | 0.463 | 13.6 | 8.5 | NO | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 12.500 | 2.92 | 3756.884 | 39547.027 | 0.475 | 13.9 | 11.4 | NO | NO | bb |
| 4 | 4 170731M2_5 | Standard | 12.500 | 2.92 | 3453.801 | 39438.602 | 0.438 | 12.8 | 2.7 | NO | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 12.500 | 2.93 | 3669.754 | 42060.418 | 0.436 | 12.8 | 2.3 | NO | NO | bb |
| $6$ | 6170731 M 2 _7 | Standard | 12.500 | 2.93 | 3495.072 | 40025.766 | 0.437 | 12.8 | 2.4 | NO | NO | bb |
| 7 | 7 170731M2_8 | Standard | 12.500 | 2.92 | 3386.169 | 39102.801 | 0.433 | 12.7 | 1.5 | NO | NO | bb |
| 8 | 8170731 M 2 _9 | Standard | 12.500 | 2.92 | 3369.060 | 39589.105 | 0.426 | 12.5 | -0.2 | NO | NO | bb |
| 9 , mex | 9 170731M2_10 | Standard | 12.500 | 2.93 | 4571.001 | 83770.414 | 0.273 | 8.0 | -36.0 | NO | NO | bb |


| Dataset: | U:IQ4.PRO\results\170731M21170731M2-CRV.qld |
| :--- | :--- |
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## Compound name: 13C2-PFHxA

Response Factor: 0.334017
RRF SD: 0.0197264, Relative SD: 5.90582
Response type: Internal Std (Ref 52 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std Conc5.000 | RT A Area |  | IS Area Response Conc. \%Dev |  |  |  | Conc. Flag . CoD ${ }^{\text {CoD Flag }}$ x=excluded |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.45 | 1 170731M2_2 | Standard |  | 3.16 | 13289.316 | 38888.445 | 1.709 | 5.1 | 2.3 | NO | NO | bb |
| $2 x+\square$ | 2 170731M2_3 | Standard | 5.000 | 3.17 | 13996.411 | 39697.934 | 1.763 | 5.3 | 5.6 | NO | NO | bb |
| 3 \% | 3 170731M2_4 | Standard | 5.000 | 3.16 | 13471.391 | 39547.027 | 1.703 | 5.1 | 2.0 | NO | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 5.000 | 3.16 | 13180.728 | 39438.602 | 1.671 | 5.0 | 0.1 | NO | NO | bb |
| $5$ | $5170731 \mathrm{M} 2 \_6$ | Standard | 5.000 | 3.16 | 14300.003 | 42060.418 | 1.700 | 5.1 | 1.8 | NO | NO | bb |
| 6 (1) + | 6 170731M2_7 | Standard | 5.000 | 3.17 | 13464.359 | 40025.766 | 1.682 | 5.0 | 0.7 | NO | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 5.000 | 3.16 | 13579.439 | 39102.801 | 1.736 | 5.2 | 4.0 | NO | NO | bb |
| 8 | 8 170731M2_9 | Standard | 5.000 | 3.17 | 13004.882 | 39589.105 | 1.642 | 4.9 | -1.7 | NO | NO | bb |
| 9 9, 4 acs | 9 170731M2_10 | Standard | 5.000 | 3.16 | 23861.670 | 83770.414 | 1.424 | 4.3 | -14.7 | NO | NO | bb |

## Compound name: 13C4-PFHpA

Response Factor: 0.414287
RRF SD: 0.0516844 , Relative SD: 12.4755
Response type: Internal Std (Ref 52 ), Area * (IS Conc. / IS Area )
Curve type: RF

| . | \# Namer Type |  | Std. Cone | RT | Area | IS Area Response Conc \%ove Conc. Flag |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1{ }^{1+4}$ | 1 170731M2_2 | Standard | 12.500 | 3.43 | 42267.941 | 38888.445 | 5.435 | 13.1 | 4.9 | NO | NO | bb |
| 2.4 | 2 170731M2_3 | Standard | 12.500 | 3.43 | 44035.770 | 39697.934 | 5.546 | 13.4 | 7.1 | NO | NO | bb |
| 3 | 3 170731M2_4 | Standard | 12.500 | 3.43 | 47111.973 | 39547.027 | 5.956 | 14.4 | 15.0 | NO | NO | bb |
| 4. | 4 170731M2_5 | Standard | 12.500 | 3.43 | 40041.188 | 39438.602 | 5.076 | 12.3 | -2.0 | NO | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 12.500 | 3.43 | 43531.445 | 42060.418 | 5.175 | 12.5 | -0.1 | NO | NO | bb |
| $6$ | 6170731 M 2 _7 | Standard | 12.500 | 3.43 | 41835.402 | 40025.766 | 5.226 | 12.6 | 0.9 | NO | NO | bb |
|  | 7 170731M2_8 | Standard | 12.500 | 3.43 | 42486.371 | 39102.801 | 5.433 | 13.1 | . 4.9 | NO | NO | bb |
| 8.42 | 8170731 M 2 _9 | Standard | 12.500 | 3.44 | 40762.777 | 39589.105 | 5.148 | 12.4 | -0.6 | NO | NO | bb |
| $9 \times 1{ }^{\text {a }}$ | 9 170731M2_10 | Standard | 12.500 | 3.43 | 60510.934 | 83770.414 | 3.612 | 8.7 | -30.3 | NO | NO | bb |


| Dataset: | U:IQ4.PRO\results\170731M21170731M2-CRV.qId |
| :--- | :--- |
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## Compound name: 1802-PFHxS

Response Factor: 0.475307
RRF SD: 0.0429846, Relative SD: 9.04355
Response type: Internal Std (Ref 53 ), Area * (IS Conc. / IS Area)
Curve type: RF

| S | \# Name - = ${ }^{\text {a }}$ - Type |  | Std. Conc | RT | Area | IS Area | ponse | Conc, | \%Dev | Conc. Fiag | CoD CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.3 | 1 170731M2_2 | Standard | 12.500 | 3.50 | 4105.498 | 8046.377 | 6.378 | 13.4 | 7.3 | NO | NO | bb |
| 2 L | 2 170731M2_3 | Standard | 12.500 | 3.51 | 4057.192 | 8495.484 | 5.970 | 12.6 | 0.5 | NO | NO | bb |
| 3 m | 3 170731M2_4 | Standard | 12.500 | 3.50 | 4402.638 | 8882.063 | 6.196 | 13.0 | 4.3 | NO | NO | bb |
| 4 | 4 170731M2_5 | Standard | 12.500 | 3.50 | 3891.568 | 8188.101 | 5.941 | 12.5 | -0.0 | NO | NO | bb |
| 5. | 5 170731M2_6 | Standard | 12.500 | 3.50 | 3878.935 | 8591.091 | 5.644 | 11.9 | -5.0 | NO | NO | bb |
|  | 6 170731M2_7 | Standard | 12.500 | 3.51 | 3978.140 | 8363.203 | 5.946 | 12.5 | 0.1 | NO | NO | bb |
| 5 | 7 170731M2_8 | Standard | 12.500 | 3.51 | 3932.861 | 7776.584 | 6.322 | 13.3 | 6.4 | NO | NO | bb |
| + | 8 170731M2_9 | Standard | 12.500 | 3.51 | 4159.138 | 8119.819 | 6.403 | 13.5 | 7.8 | NO | NO | bb |
| 9 9 | 9 170731M2_10 | Standard | 12.500 | 3.51 | 4925.332 | 13173.476 | 4.674 | 9.8 | -21.3 | NO | NO | bb |

## Compound name: 13C2-6:2 FTS

Response Factor: 0.213903
RRF SD: 0.0188493, Relative SD: 8.81207
Response type: Internal Std (Ref 54 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | \% | Con | RT | Area | ISArea | Response | Conc. | \%Dev | c. Fla | D F | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. \# \% | 1 170731M2_2 | Standard | 12.500 | 3.63 | 9927.280 | 45613.742 | 2.720 | 12.7 | 1.7 | NO | NO | bb |
| $2$ | 2 170731M2_3 | Standard | 12.500 | 3.63 | 10315.116 | 51389.625 | 2.509 | 11.7 | -6.2 | NO | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 12.500 | 3.62 | 11541.11¢ | 54967.332 | 2.625 | 12.3 | -1.8 | NO | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 12.500 | 3.62 | 10131.339 | 48131.012 | 2.631 | 12.3 | -1.6 | NO | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 12.500 | 3.63 | 9593.972 | 48854.391 | 2.455 | 11.5 | -8.2 | NO | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 12.500 | 3.63 | 10116.732 | 49711.629 | 2.544 | 11.9 | -4.9 | NO | NO | bb |
| $17$ | 7 170731M2_8 | Standard | 12.500 | 3.63 | 9833.309 | 49752.918 | 2.471 | 11.5 | -7.6 | NO | NO | bb |
| $18$ | 8 170731M2_9 | Standard | 12.500 | 3.63 | 11556.366 | 48614.910 | 2.971 | 13.9 | 11.1 | NO | NO | bb |
| $9{ }^{\circ}$ | 9170731 M 2 _10 | Standard | 12.500 | 3.63 | 18952.229 | 75486.695 | 3.138 | 14.7 | 17.4 | NO | NO | bb |

Dataset: U:\Q4.PRO\results\170731M21170731M2-CRV.qld

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## Compound name: 13C2-PFOA

Response Factor: 1.29846
RRF SD: 0.105268, Relative SD: 8.10711
Response type: Internal Std (Ref 54 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C5-PFNA

Response Factor: 1.09418
RRF SD: 0.111771, Relative SD: 10.2151
Response type: Internal Std (Ref 55 ), Area * (IS Conc. / IS Area)
Curve type: RF


Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qid
$\begin{array}{ll}\text { Last Altered: } & \text { Tuesday, August 01, } 2017 \text { 10:11:08 Pacific Daylight Time } \\ \text { Printed: } & \text { Tuesday, August 01, 2017 10:16:34 Pacific Daylight Time }\end{array}$
Printed: Tuesday, August 01, 2017 10:16:34 Pacific Daylight Time

## Compound name: 13C8-PFOSA

Response Factor: 0.124457
RRF SD: 0.0171532, Relative SD: 13.7824
Response type: Internal Std ( Ref 58 ), Area * (IS Conc. / IS Area )
Curve type: RF

| \% | \# Name |  | Std. Conc RT |  | Area | IS Area | Response Conc. \%Der |  |  | Conc. Flag . COD CoD Flag $x$ eexcluded |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 - ${ }^{\text {a }}$ | 1 170731M2_2 | Standard | 12.500 | 3.82 | 6628.687 | 46687.762 | 1.775 | 14.3 | 14.1 | NO | NO | bb |
| 2. | 2 170731M2_3 | Standard | 12.500 | 3.83 | 6757.332 | 55126.090 | 1.532 | 12.3 | -1.5 | NO | No | bb |
| $3 \times$ | 3 170731M2_4 | Standard | 12.500 | 3.82 | 7148.018 | 52064.938 | 1.716 | 13.8 | 10.3 | NO | NO | bb |
| 4 - 4 de | 4 170731M2_5 | Standard | 12.500 | 3.82 | 6732.580 | 55069.406 | 1.528 | 12.3 | -1.8 | No | NO | bb |
| . | 5 170731M2_6 | Standard | 12.500 | 3.83 | 6463.064 | 48450.305 | 1.667 | 13.4 | 7.2 | NO | NO | bb |
| 6 W | 6 170731M2_7 | Standard | 12.500 | 3.83 | 6861.386 | 50457.156 | 1.700 | 13.7 | 9.3 | NO | NO | bb |
| $7{ }^{7}$ | 7 170731M2_8 | Standard | 12.500 | 3.82 | 5762.874 | 52556.180 | 1.371 | 11.0 | -11.9 | NO | NO | bb |
| 8 | 8 170731M2_9 | Standard | 12.500 | 3.83 | 5694.701 | 43779.801 | 1.626 | 13.1 | 4.5 | NO | NO | bb |
| 9 - | 9 170731M2_10 | Standard | 12.500 | 3.83 | 6801.088 | 78259.594 | 1.086 | 8.7 | -30.2 | NO | NO | bb |

## Compound name: 13C8-PFOS

Response Factor: 1.15331
RRF SD: 0.0926176 , Relative SD: 8.03062
Response type: Internal Std ( Ref 56 ), Area * (IS Conc. / IS Area )
Curve type: RF

| W, M: | \# Name | Type | Std Conc | RT Area IS Area Response |  |  |  | Conc. \%Dev |  | Conc. Flag CoD CoDFlag x=excluded |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 170731M2_2 | Standard | 12.500 | 3.87 | 9891.881 | 9416.050 | 13.132 | 11.4 | -8.9 | NO | NO | bb |
| 2 2. $=$ \% | 2 170731M2_3 | Standard | 12.500 | 3.87 | 11460.590 | 9484.859 | 15.104 | 13.1 | 4.8 | NO | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 12.500 | 3.87 | 11503.416 | 9437.330 | 15.237 | 13.2 | 5.7 | NO | NO | bb |
| 4. | 4 170731M2_5 | Standard | 12.500 | 3.87 | 10201.429 | 8900.184 | 14.328 | 12.4 | -0.6 | NO | NO | bb |
| $5: x+4+$ | 5 170731M2_6 | Standard | 12.500 | 3.87 | 10639.481 | 9014.546 | 14.753 | 12.8 | 2.3 | NO | NO | bb |
|  | 6 170731M2_7 | Standard | 12.500 | 3.87 | 11768.862 | 8997.038 | 16.351 | 14.2 | 13.4 | NO | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 12.500 | 3.87 | 9805.450 | 8503.210 | 14.414 | 12.5 | -0.0 | NO | NO | bd |
| 8 | 8 170731M2_9 | Standard | 12.500 | 3.87 | 9480.636 | 8476.880 | 13.980 | 12.1 | -3.0 | NO | NO | bd |
| 9-4\%MTH | 9 170731M2_10 | Standard | 12.500 | 3.87 | 11450.712 | 11498.018 | 12.449 | 10.8 | -13.6 | NO | NO | bd |

Dataset:
U:IQ4.PRO|results\170731M2\170731M2-CRV.qld
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## Compound name: 13C2-PFDA

Response Factor: 1.05862
RRF SD: 0.102606, Relative SD: 9.69247
Response type: Internal Std (Ref 57 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C2-8:2 FTS

Response Factor: 0.128621
RRF SD: 0.0196887, Relative SD: 15.3075
Response type: Internal Std (Ref 57 ), Area * (IS Conc. / IS Area )
Curve type: RF


Dataset: U:\Q4.PRO\results\170731M2\170731M2-CRV.qld
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## Compound name: d3-N-MeFOSAA

Response Factor: 0.0193183
RRF SD: 0.00204703, Relative SD: 10.5963
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name - - Type |  | Std. Conc | RT | Area | IS Area | ponse | Conc. |  | nc. Flag | COD COD Fiz | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $12 \times 2$ | 1 170731M2_2 | Standard | 162.500 | 4.02 | 12318.428 | 46687.762 | 3.298 | 170.7 | 5.1 | NO | NO | bb |
| 2.4 | 2 170731M2_3 | Standard | 162.500 | 4.02 | 14049.963 | 55126.090 | 3.186 | 164.9 | 1.5 | No | NO | bb |
| 3 | 3 170731M2_4 | Standard | 162.500 | 4.02 | 13356.303 | 52064.938 | 3.207 | 166.0 | 2.1 | NO | NO | bb |
| 4.4 | 4 170731M2_5 | Standard | 162.500 | 4.01 | 13264.592 | 55069.406 | 3.011 | 155.9 | -4.1 | NO | NO | bb |
| 5 | 5 170731M2_6 | Standard | 162.500 | 4.02 | 12616.413 | 48450.305 | 3.255 | 168.5 | 3.7 | NO | NO | bb |
| 6 | 6 170731M2_7 | Standard | 162.500 | 4.02 | 13566.270 | 50457.156 | 3.361 | 174.0 | 7.1 | NO | NO | bb |
| 7.45 | 7 170731M2_8 | Standard | 162.500 | 4.01 | 12476.236 | 52556.180 | 2.967 | 153.6 | -5.5 | NO | NO | bb |
| 8 | 8 170731M2_9 | Standard | 162.500 | 4.02 | 12518.632 | 43779.801 | 3.574 | 185.0 | 13.9 | NO | NO | bb |
| 9 | 9 170731M2_10 | Standard | 162.500 | 4.02 | 14988.046 | 78259.594 | 2.394 | 123.9 | -23.7 | NO | NO | bb |

## Compound name: d5-N-EtFOSAA

Response Factor: 0.0189371
RRF SD: 0.00164292 , Relative SD: 8.67569
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area )
Curve type: RF

| $2 \sqrt{2}$ | \# Name <br> Type |  | Std. Conc RT |  |  | IS Area | Response Conc. \%Dev Conc. Flag |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.1. | 1 170731M2_2 | Standard | 162.500 | 4.08 | 11737.404 | 46687.762 | 3.143 | 165.9 | 2.1 | NO | NO | bb |
| 2.,.ts | 2 170731M2_3 | Standard | 162.500 | 4.08 | 13698.948 | 55126.090 | 3.106 | 164.0 | 0.9 | NO | NO | bb |
| 3 | $3170731 \mathrm{M} 2 \_4$ | Standard | 162.500 | 4.08 | 13688.059 | 52064.938 | 3.286 | 173.5 | 6.8 | NO | NO | bb |
| 4.4 | 4170731 M 2 _5 | Standard | 162.500 | 4.08 | 12896.733 | 55069.406 | 2.927 | 154.6 | -4.9 | NO | NO | bb |
| 5 | 5 170731M2_6 | Standard | 162.500 | 4.08 | 11500.281 | 48450.305 | 2.967 | 156.7 | -3.6 | NO | NO | bb |
|  | $6170731 \mathrm{M} 2 \ldots 7$ | Standard | 162.500 | 4.08 | 12932.044 | 50457.156 | 3.204 | 169.2 | 4.1 | NO | NO | bb |
| $17$ | 7 170731M2_8 | Standard | 162.500 | 4.08 | 12029.896 | 52556.180 | 2.861 | 151.1 | -7.0 | NO | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 162.500 | 4.08 | 12470.056 | 43779.801 | 3.560 | 188.0 | 15.7 | NO | NO | bb |
| $9$ | $9170731 \mathrm{M} 2 \_10$ | Standard | 162.500 | 4.09 | 16532.346 | 78259.594 | 2.641 | 139.4 | -14.2 | NO | NO | bb |

Vista Analytical Laboratory
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Compound name: 13C2-PFUnA
Response Factor: 1.17213
RRF SD: 0.0984029 , Relative SD: 8.39524
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C2-PFDoA

Response Factor: 0.118471
RRF SD: 0.0126225 , Relative SD: 10.6544
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | nse | Conc. | . | ac. $F$ |  | ded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1$ | 1 170731M2_2 | Standard | 12.500 | 4.31 | 6100.251 | 46687.762 | 1.633 | 13.8 | 10.3 | NO | NO | bb |
| 2 2. | 2 170731M2_3 | Standard | 12.500 | 4.31 | 6198.730 | 55126.090 | 1.406 | 11.9 | -5.1 | NO | NO | bb |
| 3. | 3 170731M2_4 | Standard | 12.500 | 4.31 | 6089.570 | 52064.938 | 1.462 | 12.3 | -1.3 | NO | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 12.500 | 4.31 | 5996.160 | 55069.406 | 1.361 | 11.5 | -8.1 | NO | NO | bb |
| 5 . | 5 170731M2_6 | Standard | 12.500 | 4.31 | 5858.786 | 48450.305 | 1.512 | 12.8 | 2.1 | NO | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 12.500 | 4.31 | 6554.075 | 50457.156 | 1.624 | 13.7 | 9.6 | NO | NO | bb |
| $17$ | 7 170731M2_8 | Standard | 12.500 | 4.31 | 5701.481 | 52556.180 | 1.356 | 11.4 | -8.4 | NO | NO | bb |
| 8 | 8 170731M2_9 | Standard | 12.500 | 4.31 | 6062.306 | 43779.801 | 1.731 | 14.6 | 16.9 | NO | NO | bb |
| 9 9* | 9 170731M2_10 | Standard | 12.500 | 4.31 | 7788.229 | 78259.594 | 1.244 | 10.5 | -16.0 | NO | NO | bb |

Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results1170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
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## Compound name: d3-N-MeFOSA

Response Factor: 0.0404511
RRF SD: 0.0027023, Relative SD: 6.68042
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: RF

| 1. | \# Name |  | Std. Conc RT Area |  |  | 15 Area | Response Conc. |  | \%Dev Conc. Flag CoD |  | CoDFlag x-excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 170731M2_2 | Standard | 150.000 | 4.38 | 22996.787 | 46687.762 | 6.157 | 152.2 | 1.5 | NO | NO | MM |
| 2. | 2 170731M2_3 | Standard | 150.000 | 4.38 | 25726.459 | 55126.090 | 5.834 | 144.2 | -3.9 | NO | NO | bb |
| 3. | 3 170731M2_4 | Standard | 150.000 | 4.38 | 25550.789 | 52064.938 | 6.134 | 151.6 | 1.1 | NO | NO | bb |
| 4 | 4 170731M2_5 | Standard | 150.000 | 4.38 | 24786.727 | 55069.406 | 5.626 | 139.1 | -7.3 | NO | NO | db |
| $5 \geq$ | 5 170731M2_6 | Standard | 150.000 | 4.38 | 23582.914 | 48450.305 | 6.084 | 150.4 | 0.3 | NO | NO | bb |
| 6 | 6 170731M2_7 | Standard | 150.000 | 4.38 | 26155.398 | 50457.156 | 6.480 | 160.2 | 6.8 | NO | NO | bb |
| $1$ | 7 170731M2_8 | Standard | 150.000 | 4.38 | 23085.887 | 52556.180 | 5.491 | 135.7 | -9.5 | NO | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 150.000 | 4.38 | 23835.992 | 43779.801 | 6.806 | 168.2 | 12.2 | NO | NO | bb |
| 9 m | 9 170731M2_10 | Standard | 150.000 | 4.38 | 37548.465 | 78259.594 | 5.997 | 148.3 | -1.2 | NO | NO | bb |

## Compound name: 13C2-PFTeDA

Response Factor: 0.801476
RRF SD: 0.0616954, Relative SD: 7.69773
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name . Type |  | Std. Conc | RT | Area | IS Area | Response | one. | \%Dev | Conc. Flag | COD CODF | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1$ | 1 170731M2_2 | Standard | 12.500 | 4.66 | 38964.742 | 46687.762 | 10.432 | 13.0 | 4.1 | NO | NO | bb |
| $2 \cdots$ | 2 170731M2_3 | Standard | 12.500 | 4.66 | 43108.695 | 55126.090 | 9.775 | 12.2 | -2.4 | NO | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 12.500 | 4.66 | 43416.883 | 52064.938 | 10.424 | 13.0 | 4.0 | NO | NO | bb |
| 4 , ${ }^{\text {a }}$ | 4 170731M2 5 | Standard | 12.500 | 4.66 | 42363.957 | 55069.406 | 9.616 | 12.0 | -4.0 | NO | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 12.500 | 4.66 | 38970.395 | 48450.305 | 10.054 | 12.5 | 0.4 | NO | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 12.500 | 4.66 | 42258.219 | 50457.156 | 10.469 | 13.1 | 4.5 | NO | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 12.500 | 4.66 | 40066.441 | 52556.180 | 9.529 | 11.9 | -4.9 | NO | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 12.500 | 4.66 | 39581.660 | 43779.801 | 11.301 | 14.1 | 12.8 | NO | NO | bb |
| 94.4 | 9 170731M2_10 | Standard | 12.500 | 4.66 | 53624.324 | 78259.594 | 8.565 | 10.7 | -14.5 | NO | NO | bb |

Dataset: U:\Q4.PRO\results\170731M21170731M2-CRV.qld

Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
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## Compound name: d5-N-ETFOSA

Response Factor: 0.0550774
RRF SD: 0.0033443 , Relative SD: 6.07201
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  |  |  | Std. Conc RT |  | Area | IS Area Response |  | Conc. $\%$ Pev |  | Conc. Flag | CoD Flag $x$ =excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 yc , | 1 170731M2_2 | Standard | 150.000 | 4.97 | 32355.941 | 46687.762 | 8.663 | 157.3 | 4.9 | NO | NO | bb |
| 2 2. $\quad$ \% | 2 170731M2_3 | Standard | 150.000 | 4.97 | 35601.133 | 55126.090 | 8.073 | 146.6 | -2.3 | NO | NO | bb |
| 3 | $3170731 \mathrm{M} 2+4$ | Standard | 150.000 | 4.97 | 34205.117 | 52064.938 | 8.212 | 149.1 | -0.6 | NO | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 150.000 | 4.97 | 33521.320 | 55069.406 | 7.609 | 138.1 | -7.9 | NO | NO | bb |
| 5 | 5 170731M2_6 | Standard | 150.000 | 4.97 | 32043.641 | 48450.305 | 8.267 | 150.1 | 0.1 | NO | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 150.000 | 4.97 | 34405.922 | 50457.156 | 8.524 | 154.8 | 3.2 | NO | NO | bb |
| 7 | 7 170731M2_8 | Standard | 150.000 | 4.97 | 32776.059 | 52556.180 | 7.795 | 141.5 | -5.6 | NO | NO | bd |
| 8 \% | 8 170731M2_9 | Standard | 150.000 | 4.97 | 32444.443 | 43779.801 | 9.264 | 168.2 | 12.1 | NO | NO | bb |
| 9 9, ${ }^{\text {a }}$ | 9 170731M2_10 | Standard | 150.000 | 4.98 | 49761.906 | 78259.594 | 7.948 | 144.3 | -3.8 | NO | NO | bb |

## Compound name: 13C2-PFHxDA

Response Factor: 0.991204
RRF SD: 0.0786595 , Relative SD: 7.93575
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name |  | Conc | RT Area |  | IS Area | Response Conc. \%Dev Conc. Flag CoD |  |  |  | CoD Flag |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1- H | 1 170731M2_2 | Standard | 5.000 | 5.03 | 18578.701 | 46687.762 | 4.974 | 5.0 | 0.4 | NO | NO | bb |
| 2 \% | 2 170731M2_3 | Standard | 5.000 | 5.03 | 21305.383 | 55126.090 | 4.831 | 4.9 | -2.5 | NO | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 5.000 | 5.03 | 21093.645 | 52064.938 | 5.064 | 5.1 | 2.2 | NO | NO | bb |
| 4.5 | 4 170731M2_5 | Standard | 5.000 | 5.03 | 20624.443 | 55069.406 | 4.681 | 4.7 | -5.5 | NO | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 5.000 | 5.03 | 19494.348 | 48450.305 | 5.029 | 5.1 | 1.5 | NO | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 5.000 | 5.03 | 20781.805 | 50457.156 | 5.148 | 5.2 | 3.9 | NO | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 5.000 | 5.03 | 19811.059 | 52556.180 | 4.712 | 4.8 | -4.9 | NO | NO | bb |
| $18$ | 8 170731M2_9 | Standard | 5.000 | 5.03 | 20275.766 | 43779.801 | 5.789 | 5.8 | 16.8 | NO | NO | bb |
| 9. ${ }^{\text {a }}$ | 9 170731M2_10 | Standard | 5.000 | 5.04 | 27386.783 | 78259.594 | 4.374 | 4.4 | -11.7 | NO | NO | bb |

Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results1170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
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## Compound name: d7-N-MeFOSE

Response Factor: 0.0651506
RRF SD: 0.00469717, Relative SD: 7.20972
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std Conc | RT | - Area | ISArea | ponse | Conc. | Dev | c. F | F | xcluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 170731M2_2 | Standard | 150.000 | 5.43 | 38065.852 | 46687.762 | 10.192 | 156.4 | 4.3 | NO | NO | bb |
| 2 | 2 170731M2_3 | Standard | 150.000 | 5.43 | 40818.066 | 55126.090 | 9.256 | 142.1 | -5.3 | NO | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 150.000 | 5.43 | 40754.777 | 52064.938 | 9.785 | 150.2 | 0.1 | NO | NO | bb |
| 4. | 4 170731M2_5 | Standard | 150.000 | 5.43 | 39794.629 | 55069.406 | 9.033 | 138.6 | -7.6 | NO | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 150.000 | 5.43 | 38172.813 | 48450.305 | 9.848 | 151.2 | 0.8 | NO | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 150.000 | 5.43 | 40819.426 | 50457.156 | 10.112 | 155.2 | 3.5 | NO | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 150.000 | 5.43 | 37733.039 | 52556.180 | 8.974 | 137.7 | -8.2 | NO | NO | bb |
| 8.4 | $8170731 \mathrm{M} 2 \ldots 9$ | Standard | 150.000 | 5.43 | 39369.297 | 43779.801 | 11.241 | 172.5 | 15.0 | NO | NO | bb |
| 9 9, | 9 170731M2_10 | Standard | 150.000 | 5.43 | 59556.500 | 78259.594 | 9.513 | 146.0 | -2.7 | NO | NO | bb |

## Compound name: d9-N-EtFOSE

Response Factor: 0.0647796
RRF SD: 0.00452035, Relative SD: 6.97805
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT Area IS Area Response |  |  |  | Conc. \%Dev |  | Conc. Flag CoD CoD Flag |  | $x$-excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 170731M2_2 | Standard | 150.000 | 5.61 | 37434.258 | 46687.762 | 10.023 | 154.7 | 3.1 | NO | NO | bb |
| 2 2 | 2 170731M2_3 | Standard | 150.000 | 5.61 | 40953.574 | 55126.090 | 9.286 | 143.4 | -4.4 | NO | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 150.000 | 5.61 | 40593.066 | 52064.938 | 9.746 | 150.4 | 0.3 | NO | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 150.000 | 5.61 | 39083.969 | 55069.406 | 8.872 | 136.9 | -8.7 | NO | NO | bb |
|  | 5 170731M2_6 | Standard | 150.000 | 5.60 | 37934.445 | 48450.305 | 9.787 | 151.1 | 0.7 | NO | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 150.000 | 5.61 | 40396.703 | 50457.156 | 10.008 | 154.5 | 3.0 | NO | NO | bb |
| $17$ | 7 170731M2_8 | Standard | 150.000 | 5.61 | 37673.949 | 52556.180 | 8.960 | 138.3 | -7.8 | NO | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 150.000 | 5.60 | 39004.324 | 43779.801 | 11.137 | 171.9 | 14.6 | NO | NO | bb |
| 9 9 | 9 170731M2_10 | Standard | 150.000 | 5.61 | 60321.027 | 78259.594 | 9.635 | 148.7 | -0.8 | NO | NO | bb |

Vista Analytical Laboratory
Dataset:
U:IQ4.PRO\results\170731M21170731M2-CRV.qld
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## Compound name: 13C4-PFBA

Response Factor: 1
RRF SD: 3.92523e-017, Relative SD: $3.92523 e-015$
Response type: Internal Std (Ref 51 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name Type |  | Std. Conc | RT Area IS Area |  |  | Response | Conc. \%Dev Conc. Fla |  |  | CoD Flag x $x$-excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 170731M2_2 | Standard | 12.500 | 1.40 | 13370.174 | 13370.174 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 2 \% ${ }^{\text {a }}$ | 2 170731M2_3 | Standard | 12.500 | 1.40 | 14138.808 | 14138.808 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 3trum | 3 170731M2_4 | Standard | 12.500 | 1.40 | 13876.813 | 13876.813 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 4 170731M2_5 | Standard | 12.500 | 1.40 | 13352.213 | 13352.213 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $5$ | 5 170731M2_6 | Standard | 12.500 | 1.40 | 13996.207 | 13996.207 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $6$ | 6170731 M 2 _7 | Standard | 12.500 | 1.40 | 13824.148 | 13824.148 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $7$ | 7 170731M2_8 | Standard | 12.500 | 1.40 | 13506.435 | 13506.435 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 12.500 | 1.40 | 13834.986 | 13834.986 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9.4 | $9170731 \mathrm{M} 2 \_10$ | Standard | 12.500 | 1.41 | 24706.939 | 24706.939 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

## Compound name: 13C5-PFHxA

Response Factor: 1
RRF SD: 0 , Relative SD: 0
Response type: Internal Std (Ref 52 ), Area * (IS Conc. / IS Area)
Curve type: RF


| Dataset: | U:IQ4.PRO\results\170731M2\170731M2-CRV.qld |
| :--- | :--- |
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| Printed: | Tuesday, August 01, 2017 10:16:34 Pacific Daylight Time |

## Compound name: 13C3-PFHxS

Response Factor: 1
RRF SD: 1.30185e-016, Relative SD: 1.30185e-014
Response type: Internal Std (Ref 53 ), Area * (IS Conc. / IS Area )
Curve type: RF

| 2 | \# Name | Type | 2 | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD CoD Flag | $x=e x$ cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| , | 1 170731M2_2 | Standard |  | 12.500 | 3.50 | 8046.377 | 8046.377 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $2 \times$ | 2 170731M2_3 | Standard |  | 12.500 | 3.51 | 8495.484 | 8495.484 | 12.500 | 12.5 | 0.0 | No | No | bb |
| 3 y 3 ${ }^{\text {a }}$ | 3 170731M2_4 | Standard |  | 12.500 | 3.50 | 8882.063 | 8882.063 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 - | 4 170731M2_5 | Standard |  | 12.500 | 3.50 | 8188.101 | 8188.101 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 170731M2_6 | Standard |  | 12.500 | 3.51 | 8591.091 | 8591.091 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 - ${ }^{4}$ | 6 170731M2_7 | Standard |  | 12.500 | 3.51 | 8363.203 | 8363.203 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 7 | 7 170731M2_8 | Standard |  | 12.500 | 3.50 | 7776.584 | 7776.584 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 - | 8 170731M2_9 | Standard |  | 12.500 | 3.51 | 8119.819 | 8119.819 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $9 \times 3$ | 9 170731M2_10 | Standard |  | 12.500 | 3.51 | 13173.476 | 13173.476 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

## Compound name: 13C8-PFOA

## Response Factor:

RRF SD: 0, Relative SD: 0
Response type: Internal Std ( Ref 54 ), Area * (IS Conc. / IS Area )
Curve type: RF

Dataset: U:IQ4.PRO\results1170731M21170731M2-CRV.qld

Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed:
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## Compound name: 13C9-PFNA

Response Factor: 1
RRF SD: 3.92523e-017, Relative SD: 3.92523e-015
Response type: Internal Std (Ref 55 ), Area * (IS Conc. / IS Area )
Curve type: RF


## Compound name: 13C4-PFOS

Response Factor: 1
RRF SD: 3.92523e-017, Relative SD: 3.92523e-015
Response type: Internal Std ( Ref 56 ), Area * (IS Conc. / IS Area )
Curve type: RF

| 4- ${ }^{\text {a }}$ | \# Name - - Type |  | Std. Conc RT |  | Area | IS Area Response Conc, \%Dev |  |  |  | Conc. Flag | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Wtat | 1 170731M2_2 | Standard | 12.500 | 3.87 | 9416.050 | 9416.050 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 170731M2_3 | Standard | 12.500 | 3.87 | 9484.859 | 9484.859 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2-x | 3 170731M2_4 | Standard | 12.500 | 3.87 | 9437.330 | 9437.330 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 12.500 | 3.87 | 8900.184 | 8900.184 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5.4 | 5 170731M2_6 | Standard | 12.500 | 3.87 | 9014.546 | 9014.546 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 12.500 | 3.87 | 8997.038 | 8997.038 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| + | 7 170731M2_8 | Standard | 12.500 | 3.87 | 8503.210 | 8503.210 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| \% | 8170731 M 2 _9 | Standard | 12.500 | 3.87 | 8476.880 | 8476.880 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| - | 9 170731M2_10 | Standard | 12.500 | 3.87 | 11498.018 | 11498.018 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

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## Compound name: 13C6-PFDA

Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 57 ), Area * (IS Conc. / IS Area)
Curve type: RF

| S |  |  |  |  | - ${ }^{\text {\% }}$ - Area | IS Area | Response Conc. \%Dev Conc. Flag |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 + ${ }^{\text {d }}$ | 1 170731M2_2 | Standard | 12.500 | 3.99 | 48495.309 | 48495.309 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $2 \times 2$ | 2 170731M2_3 | Standard | 12.500 | 3.99 | 59901.941 | 59901.941 | 12.500 | 12.5 | 0.0 | NO | No | bb |
| $3 \times$ | 3 170731M2_4 | Standard | 12.500 | 3.99 | 59169.184 | 59169.184 | 12.500 | 12.5 | 0.0 | NO | No | bb |
| 4 4-5.4. | 4 170731M2_5 | Standard | 12.500 | 3.98 | 50594.809 | 50594.809 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5. | 5 170731M2_6 | Standard | 12.500 | 3.99 | 46199.484 | 46199.484 | 12.500 | 12.5 | 0.0 | NO | No | bb |
| 6 - ${ }^{\text {chem }}$ | 6 170731M2_7 | Standard | 12.500 | 3.99 | 55659.504 | 55659.504 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 7 170731M2_8 | Standard | 12.500 | 3.99 | 46843.121 | 46843.121 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3- | 8 170731M2_9 | Standard | 12.500 | 3.99 | 48865.242 | 48865.242 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 - | 9 170731M2_10 | Standard | 12.500 | 3.99 | 77377.094 | 77377.094 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

## Compound name: 13C7-PFUnA

Response Factor: 1
RRF SD: 8.77708e-017, Relative SD: 8.77708e-015
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1: | 1 170731M2_2 | Standard | 12.500 | 4.15 | 46687.762 | 46687.762 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 170731M2_3 | Standard | 12.500 | 4.16 | 55126.090 | 55126.090 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $3$ | 3 170731M2_4 | Standard | 12.500 | 4.15 | 52064.938 | 52064.938 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $4$ | 4 170731M2_5 | Standard | 12.500 | 4.15 | 55069.406 | 55069.406 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $15$ | 5 170731M2_6 | Standard | 12.500 | 4.15 | 48450.305 | 48450.305 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $6$ | 6 170731M2_7 | Standard | 12.500 | 4.15 | 50457.156 | 50457.156 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $17$ | 7 170731M2_8 | Standard | 12.500 | 4.15 | 52556.180 | 52556.180 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $8$ | 8 170731M2_9 | Standard | 12.500 | 4.15 | 43779.801 | 43779.801 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $9$ | 9 170731M2_10 | Standard | 12.500 | 4.16 | 78259.594 | 78259.594 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

Vista Analytical Laboratory

| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 10:20:34 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:21:31 Pacific Daylight Time |

Method: U:IQ4.PROIMethDBIPFAS_FULL_7-20-17.mdb 01 Aug 2017 09:55:07

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08

Compound name: PFBA


## Method: U:IQ4.PROIMethDBIPFAS_FULL_7-20-17.mdb 01 Aug 2017 09:55:07

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08

Compound name: PFBA
Coefficient of Determination: $\mathbf{R}^{\wedge} 2=0.999898$
Calibration curve: $6.26653 \mathrm{e}-005^{*} \mathrm{x}^{\wedge} 2+1.07835{ }^{*} \mathrm{x}+0.0734459$
Response type: Internal Std ( Ref 28 ), Area * ( IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1

| Dataset: | U:IQ4.PRO\results1170731M21170731M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time |

Compound name: PFPeA
Correlation coefficient: $\mathrm{r}=0.999842, \mathrm{r}$ 2 $=0.999685$
Calibration curve: 0.95207 * x + 0.034134
Response type: Internal Std (Ref 29 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


\section*{Quantify Calibration Report

## Vista Analytical Laboratory Q1

## Vista Analytical Laboratory Q1

Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

## Compound name: PFBS

Correlation coefficient: $\mathrm{r}=0.999700, \mathrm{r}^{\wedge} 2=0.999400$
Calibration curve: 1.88408 * $x+0.0670139$
Response type: Internal Std (Ref 30 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report

Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: PFHxA
Correlation coefficient: $\mathrm{r}=0.999770, \mathrm{r}^{\wedge} 2=0.99954$
Calibration curve: 1.38743 * x + 0.151774
Response type: Internal Std (Ref 31 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report

Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: PFHpA
Correlation coefficient: $\mathrm{r}=0.999907, \mathrm{r}^{\wedge} 2=0.999814$
Calibration curve: $1.19527^{*} x+0.0770691$
Response type: Internal Std (Ref 32 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PROIresults1170731M2\170731M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time |

## Compound name: PFHxS

Correlation coefficient: $\mathrm{r}=0.998411, \mathrm{r}^{\wedge} 2=0.996824$
Calibration curve: 1.6806 * $x+0.0313148$
Response type: Internal Std (Ref 33 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:\Q4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: 6:2 FTS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999797$
Calibration curve: $-0.00364043^{*} x^{\wedge} 2+1.16681^{*} x+-0.0592153$
Response type: Internal Std (Ref 34 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: $\quad$ Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: PFOA
Correlation coefficient: $\mathrm{r}=0.999910, \mathrm{r}^{\wedge} 2=0.999821$
Calibration curve: 0.953928 * $x+0.14566$
Response type: Internal Std (Ref 35 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1

| Dataset: | U:IQ4.PRO\results\170731M21170731M2-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time |

Compound name: PFHpS
Correlation coefficient: $\mathrm{r}=0.999006, \mathrm{r}^{\wedge} 2=0.998013$
Calibration curve: 0.0861619 *x + 0.0071876
Response type: Internal Std ( Ref 35 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report <br> Vista Analytical Laboratory Q1

| Dataset: | U:IQ4.PRO\results1170731M21170731M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time |

Compound name: PFNA
Correlation coefficient: $\mathrm{r}=0.999697, \mathrm{r}^{\wedge} 2=0.999394$
Calibration curve: 1.08541 * x + 0.0735739
Response type: Internal Std (Ref 36 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report

MassLynx MassLynx V4.1 SCN945 SCN960

## Vista Analytical Laboratory Q1

Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: PFOSA
Correlation coefficient: $\mathrm{r}=0.999883, \mathrm{r}^{\wedge} 2=0.999766$
Calibration curve: 1.0734 * x + -0.0271184
Response type: Internal Std (Ref 37 ), Area * ( IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Work Order 1700871

## Quantify Calibration Report <br> \section*{Vista Analytical Laboratory Q1}

| Dataset: | U:IQ4.PROlresults1170731M21170731M2-CRV.qld |
| :--- | :--- |
| Last Altered: | Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time |

Compound name: PFOS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999779$
Calibration curve: 0.000313423 * $x^{\wedge} 2+1.01509$ * $x+0.0486823$
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

Dataset: U:IQ4.PROlresults\170731M21170731M2-CRV.qld
Last Altered:
Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time

Printed:
Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

## Compound name: PFDA

Correlation coefficient: $\mathrm{r}=0.999542, \mathrm{r}^{\wedge} 2=0.999084$
Calibration curve: 1.19993 * $x+0.156566$
Response type: Internal Std (Ref 39 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1

| Dataset: | U:IQ4.PROIresults1170731M2\170731M2-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time |
| Printed: | Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time |

Compound name: 8:2 FTS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999107$
Calibration curve: -0.00477278 * $x^{\wedge} 2+1.45357$ * $x+0.0233651$
Response type: Internal Std (Ref 40 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


```Quantify Calibration Report

\section*{Vista Analytical Laboratory Q1}
```

Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time Printed: $\quad$ Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

```

Compound name: N-MeFOSAA
Coefficient of Determination: \(\mathrm{R}^{\wedge} 2=0.999795\)
Calibration curve: 0.00169243 * \(x^{\wedge} 2+17.7214^{*}\) x + 0.975242
Response type: Internal Std (Ref 41 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


\section*{Vista Analytical Laboratory Q1}

Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed:
Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: N-EtFOSAA
Coefficient of Determination: \(\mathrm{R}^{\wedge} 2=0.999924\)
Calibration curve: -0.0019298 * \(x^{\wedge} 2+15.4647\) * \(x+-0.327453\)
Response type: Internal Std (Ref 42 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: PFUnA
Coefficient of Determination: \(\mathbf{R}^{\wedge} 2=0.997941\)
Calibration curve: \(-3.28617 e-005^{*} x^{\wedge} 2+0.757566{ }^{*} x+0.0881327\)
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


\section*{Dataset:}

U:\Q4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

\section*{Compound name: PFDS}

Coefficient of Determination: \(\mathrm{R}^{\wedge} 2=0.997578\)
Calibration curve: -4.11818e-005 * \(x^{\wedge} 2+0.0811765\) * \(x+-0.0032981\)
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
\(\begin{array}{ll}\text { Last Altered: } \quad \text { Tuesday, August 01, } 2017 \text { 10:11:08 Pacific Daylight Time } \\ \text { Printed: } & \text { Tuesday, August 01, } 2017 \text { 10:14:31 Pacific }\end{array}\)
Printed Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: PFDoA
Coefficient of Determination: \(\mathrm{R}^{\wedge} 2=0.999599\)
Calibration curve: \(-9.87083 e-006\) * \(x^{\wedge} 2+0.940673\) * \(x+0.00742583\)
Response type: Internal Std (Ref 44 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


\section*{Quantify Calibration Report}

Vista Analytical Laboratory Q1
Dataset:
U:\Q4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: N-MeFOSA
Correlation coefficient: \(r=0.998345, r^{\wedge} 2=0.996693\)
Calibration curve: 1.00604 * \(x+0.235716\)
Response type: Internal Std (Ref 45 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


\section*{Quantify Calibration Report}

\section*{Vista Analytical Laboratory Q1}

Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qld

\section*{Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time}

Printed:
Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: PFTrDA
Correlation coefficient: \(\mathrm{r}=0.999725, \mathrm{r}^{\wedge} 2=0.999450\)
Calibration curve: 10.3774 * \(x+1.19316\)
Response type: Internal Std ( Ref 44 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset:
U:\Q4.PRO\results\170731M2|170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: PFTeDA
Coefficient of Determination: \(\mathrm{R}^{\wedge} 2=0.999821\)
Calibration curve: \(-0.000206845{ }^{*} x^{\wedge} 2+1.07301^{*} x+0.115151\)
Response type: Internal Std (Ref 46 ), Area * (IS Conc. I IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


\section*{Vista Analytical Laboratory Q1}

Dataset:
U:\Q4.PRO\results\170731M21170731M2-CRV.ald
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed:
Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: N-EtFOSA
Correlation coefficient: \(\mathrm{r}=0.999415, \mathrm{r}^{\wedge} 2=0.998831\)
Calibration curve: 0.921854 * \(x+0.382781\)
Response type: Internal Std (Ref 47 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


\section*{Quantify Calibration Report MassLynx MassLynx V4.1 SCN945 SCN960}

\section*{Vista Analytical Laboratory Q1}

Dataset: U:\Q4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: PFHxDA
Coefficient of Determination: \(\mathrm{R}^{\wedge} 2=0.999687\)
Calibration curve: \(-0.000332417^{*} x^{\wedge} 2+1.25821\) * \(x+0.243616\)
Response type: Internal Std (Ref 48 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

\begin{tabular}{ll} 
Dataset: & U:IQ4.PRO\results1170731M21170731M2-CRV.qld \\
& \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time
\end{tabular}

\section*{Compound name: PFODA}

Correlation coefficient: \(\mathrm{r}=0.998537, \mathrm{r}^{\wedge} 2=0.997077\)
Calibration curve: 1.12504 * x + 0.153988
Response type: Internal Std ( Ref 48 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PROIresults\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: N-MeFOSE
Correlation coefficient: \(\mathrm{r}=0.999653, \mathrm{r}^{\wedge} 2=0.999306\)
Calibration curve: 1.02661 * x + 0.421311
Response type: Internal Std (Ref 49 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


\section*{Quantify Calibration Report}

Vista Analytical Laboratory Q1
Dataset: U:\Q4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:14:31 Pacific Daylight Time

Compound name: N-EtFOSE
Correlation coefficient: \(\mathrm{r}=0.999481, \mathrm{r}^{\wedge} 2=0.998963\)
Calibration curve: 1.14913 * \(x+1.24499\)
Response type: Internal Std ( Ref 50 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

\begin{tabular}{ll} 
Dataset: & U:\Q4.PRO\results\170731M21170731M2-CRV.qld \\
& \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

Method: U:\Q4.PRO\MethDB\PFAS_FULL_7-20-17.mdb 01 Aug 2017 09:55:07

\section*{Calibration: 01 Aug 2017 10:11:08}

\section*{Name: 170731M2_2, Date: 01-Aug-2017, Time: 00:39:54, ID: ST170731M2-1 PFC CS-2 17G3107, Description: PFC CS-2 17 G 3107}


13C3-PFBA
F2:MRM of 1 channel,ES-
F2:MRM of 1 channel,ES
\(216.1>171.8\)


\section*{PFPeA}

F4:MRM of 1 channel,ES-


13C3-PFPeA
F5:MRM of 1 channel,ES-
F5.MRM of 1 channel, ES
\(266>221.8\)


\section*{PFBS}




\section*{13C3-PFBS}


PFHxA



\section*{13C2-PFHxA}



\section*{13C4-PFHpA}

F15:MRM of 1 channel,ES-


\section*{PFHxS}

1802-PFHxS
F18:MRM of 1 channel,ES-
\(403>102.6\)
\(100 \quad \begin{aligned} & 403>102.6 \\ & 7.920 \mathrm{e}+004\end{aligned}\)



\section*{Vista Analytical Laboratory}

Dataset:
U:IQ4.PRO\results1170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_2, Date: 01-Aug-2017, Time: 00:39:54, ID: ST170731M2-1 PFC CS-2 17G3107, Description: PFC CS-2 17 G3107


13C2-6:2 FTS
F23:MRM of 1 channel,ES\(429.1>408.9\)



F19:MRM of 2 channels,ES-


13C2-PFOA
F20:MRM of 1 channel,ESF20:MRM of 1 channel,ES
\(414.9>369.7\)




13C3-PFBS
F7:MRM of 1 channel,ES-
\(302>98.8\)



F25:MRM of 2 channels,ES-


13C5-PFNA
F26:MRM of 1 channel,ES-



F28:MRM of 2 channels,ES-
\(498.1>478\)


\section*{13C8-PFOSA}



F30:MRM of 2 channels,ES-
\(499>99\)


13C8-PFOS


Dataset:
U:\Q4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_2, Date: 01-Aug-2017, Time: 00:39:54, ID: ST170731M2-1 PFC CS-2 17G3107, Description: PFC CS-2 17G3107

\begin{tabular}{ll} 
Dataset: & U:IQ4.PROlresults1170731M21170731M2-CRV.qld \\
& \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

Name: 170731M2_2, Date: 01-Aug-2017, Time: 00:39:54, ID: ST170731M2-1 PFC CS-2 17G3107, Description: PFC CS-2 17G3107



13C2-PFTeDA
F59:MRM of 2 channels,ES-
\(714.8>669.6\)


\section*{PFTeDA}
\(\begin{array}{r}\text { F58:MRM of } 4 \text { channels,ES- } \\ 100 \\ \hline\end{array}\)
F58:MRM of 4 channels, ES-
\(712.9>369\)


\section*{13C2-PFTeDA}

F59:MRM of 2 channels,ES
\(714.8>669.6\) \(714.8>669.6\)




Last Altered: \(\quad\) Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_2, Date: 01-Aug-2017, Time: 00:39:54, ID: ST170731M2-1 PFC CS-2 17G3107, Description: PFC CS-2 17G3107

d7-N-MeFOSE
F54:MRM of 1 channel,ES\(623.1>58.9\)




F56:MRM of 1 channel,ES-



\section*{13C3-PFHxS}

F17:MRM of 1 channel,ES-



\section*{13C8-PFOA}

F21:MRM of 1 channel,ES-
\(421.3>376\)



13C9-PFNA
F27:MRM of 1 channel,ES



Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_2, Date: 01-Aug-2017, Time: 00:39:54, ID: ST170731M2-1 PFC CS-2 17G3107, Description: PFC CS-2 17G3107

\section*{13C4-PFOS \\ F31:MRM of 1 channel,ES\(503>79.9\) \\ }



Last Altered: \(\quad\) Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_3, Date: 01-Aug-2017, Time: 00:50:40, ID: ST170731M2-2 PFC CS-1 17G3108, Description: PFC CS-1 17G3108


\section*{13C3-PFBA}



\section*{13C3-PFPeA}

F5:MRM of 1 channel,ES-
F5:MRM of 1 channel, ES-
\(266>221.8\)



\section*{13C3-PFBS}


\section*{PFHxA}

F8:MRM of 2 channels,ES-
 \(313.2>268.9\)
\(4.950 \mathrm{e}+004\)


F8:MRM of 2 channels, ES-


13C2-PFHxA


\section*{PFHpA}

F14:MRM of 2 channels,ES-
\(363>318.9\)
\(4.569 \mathrm{e}+004\)


F14:MRM of 2 channels, ES-
\(363>169\)


\section*{13C4-PFHpA}


\section*{PFHxS}

F16:MRM of 2 channels,ES-


F16:MRM of 2 channels,ES-


1802-PFHxS
F18:MRM of 1 channel,ES-
\(403>102.6\)


\section*{Vista Analytical Laboratory}

Dataset:
U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_3, Date: 01-Aug-2017, Time: 00:50:40, ID: ST170731M2-2 PFC CS-1 17G3108, Description: PFC CS-1 17G3108


Dataset: U:\Q4.PRO|results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_3, Date: 01-Aug-2017, Time: 00:50:40, ID: ST170731M2-2 PFC CS-1 17G3108, Description: PFC CS-1 17G3108






F43:MRM of 2 channels,ES


13C2-PFUnA



PFDS


F50:MRM of 2 channels,ES


13C2-PFUnA
F44:MRM of 1 channel,ES-
\(565>519.8\)
\(1.220 e+006\)


Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: \(\quad\) Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed:
Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

\section*{Name: 170731M2_3, Date: 01-Aug-2017, Time: 00:50:40, ID: ST170731M2-2 PFC CS-1 17G3108, Description: PFC CS-1 17G3108}


F51:MRM of 2 channels,ES-
\(612.9>569\)
\(8.024 e+003\)

4.2504 .5004 .750



F34:MRM of 2 channels,ES-





F39:MRM of 2 channels,ES-



F60:MRM of 2 channels,ES.


13C2-PFHxDA

\begin{tabular}{ll} 
Dataset: & U:\Q4.PRO\results\17073.|M2\17073.|M2-CRV.qld \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

Name: 170731M2_3, Date: 01-Aug-2017, Time: 00:50:40, ID: ST170731M2-2 PFC CS-1 17G3108, Description: PFC CS-1 17G3108


\section*{d7-N-MeFOSE}

F54:MRM of 1 channel,ES-






\section*{13C3-PFHxS}

F17:MRM of 1 channel,ES-
\(401.9>79.9\)



\section*{13C8-PFOA}

F21:MRM of 1 channel,ES-
\(421.3>376\)



\section*{13C9-PFNA}


\begin{tabular}{ll} 
Dataset: & U:\Q4.PRO\results\170731M21170731M2-CRV.qld \\
& \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

Name: 170731M2_3, Date: 01-Aug-2017, Time: 00:50:40, ID: ST170731M2-2 PFC CS-1 17G3108, Description: PFC CS-1 17G3108

\begin{tabular}{ll} 
Dataset: & U:IQ4.PRO\results\170731M2\170731M2-CRV.qld \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

\section*{Name: 170731M2_4, Date: 01-Aug-2017, Time: 01:01:18, ID: ST170731M2-3 PFC CS0 17G3109, Description: PFC CS0 17G3109}

\section*{PFBA \\ }


PFPeA


\section*{13C3-PFPeA}

F5:MRM of 1 channel,ES-


\section*{PFBS}


13C3-PFBS


\section*{PFHxA}






\section*{PFHpA}

F14:MRM of 2 channels, ES
\(363>318.9\)


F14:MRM of 2 channels,ES-



PFHxS


1802-PFHxS
F18:MRM of 1 channel,ES-
\(403>102.6\)
\(8.206 \mathrm{e}+004\)


Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_4, Date: 01-Aug-2017, Time: 01:01:18, ID: ST170731M2-3 PFC CS0 17G3109, Description: PFC CS0 17G3109


\section*{PFNA}




F28:MRM of 2 channels,ES-


\section*{13C8-PFOSA}


PFOS


F30:MRM of 2 channels,ES

13C8-PFOS
F33:MRM of 1 channel,ES-
\(507>79.9\)
\(1.994 e+005\)

Dataset: U:IQ4.PRO|results|170731M21170731M2-CRV.qld
\(\begin{array}{ll}\text { Last Altered: } & \text { Tuesday, August 01, } 2017 \text { 10:11:08 Pacific Daylight Time } \\ \text { Printed: } & \text { Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time }\end{array}\)

Name: 170731M2_4, Date: 01-Aug-2017, Time: 01:01:18, ID: ST170731M2-3 PFC CS0 17G3109, Description: PFC CS0 17G3109





\section*{PFUnA}

F43:MRM of 2 channels, ES\(562.9>518.9\)


F43:MRM of 2 channels,ES-



PFDS


F50:MRM of 2 channels,ES


13C2-PFUnA
F44:MRM of 1 channel,ES\(565>519.8\)


Dataset: U:IQ4.PRO|results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_4, Date: 01-Aug-2017, Time: 01:01:18, ID: ST170731M2-3 PFC CS0 17G3109, Description: PFC CS0 17 G 3109


F51:MRM of 2 channels,ES\(612.9>569\) \(1.119 \mathrm{e}+004\)


\section*{13C2-PFDOA}



\section*{d3-N-MeFOSA}



F57:MRM of 2 channels,ES


\section*{13C2-PFTeDA}


F58:MRM of 4 channels,ES-





\section*{d5-N-ETFOSA}


\section*{PFHxDA}


F60:MRM of 2 channels,ES-


13C2-PFHxDA


Last Altered: \(\quad\) Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_4, Date: 01-Aug-2017, Time: 01:01:18, ID: ST170731M2-3 PFC CS0 17G3109, Description: PFC CS0 17G3109



Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_4, Date: 01-Aug-2017, Time: 01:01:18, ID: ST170731M2-3 PFC CS0 17G3109, Description: PFC CS0 17G3109

\section*{13C4-PFOS \\ F31:MRM of 1 channel,ES\(503>79.9\) \\ }

13C6-PFDA
F38:MRM of 1 channel,ES\(519.1>473.7\)


13C7-PFUnA
F46:MRM of 1 channel,ES-
\(570.1>524.8\)
\(1.002 \mathrm{e}+006\)

\begin{tabular}{ll} 
Dataset: & U:IQ4.PRO\results\170731M21170731M2-CRV.qid \\
& \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

Name: 170731M2_5, Date: 01-Aug-2017, Time: 01:12:05, ID: ST170731M2-4 PFC CS1 17G3110, Description: PFC CS1 17 G3110


\section*{13C3-PFBA}


\section*{PFPeA}



F5:MRM of 1 channel,ES-



F6:MRM of 2 channels,ES \(299>79.7\) \(2.375 \mathrm{e}+004\)




\section*{13C3-PFBS}


\section*{PFHxA}

F8:MRM of 2 channels,ES313.2 > 268.9 \(1.830 \mathrm{e}+005\)




13C2-PFHxA
F9:MRM of 1 channel,ES2.MRM of \(315>269.8\)




\section*{PFHxS}

F16:MRM of 2 channels,ES


F16:MRM of 2 chánnels,ES


1802-PFHxS


Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld

Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_5, Date: 01-Aug-2017, Time: 01:12:05, ID: ST170731M2-4 PFC CS1 17G3110, Description: PFC CS1 17 G3110





F19:MRM of 2 channels,ES-


\section*{13C2-PFOA}

F20:MRM of 1 channel,ES-
\(\begin{array}{rr} & 414.9>369.7 \\ 100-1.299 e+006\end{array}\)




\section*{13C3-PFBS}



F28:MRM of 2 channels,ES-


\section*{13C8-PFOSA}

F32:MRM of 1 channel, ES-
\(506.1>77.7\)


\section*{PFOS}


F30:MRM of 2 channels,ES-


13C8-PFOS
F33:MRM of 1 channel,ES-

\begin{tabular}{ll} 
Dataset: & U:\Q4.PRO\results\170731M21170731M2-CRV.qld \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

\section*{Name: 170731M2_5, Date: 01-Aug-2017, Time: 01:12:05, ID: ST170731M2-4 PFC CS1 17G3110, Description: PFC CS1 17 G 3110}


F35:MRM of 2 channels,ES-
\(513>219\)


\section*{13C2-PFDA}

F36:MRM of 1 channel,ES515.1 > 469.9



F40:MRM of 2 channels,ES-
\(527>80\)
F45:MRM of 2 channels,ES\(570.1>483\)

3.8004 .0004 .200

\section*{13C2-8:2 FTS
F41:MRM of 1 channel,ES-}

F41.MRM
\(529.1>508.7\)
\(1.021 \mathrm{e}+005\)



F48:MRM of 2 channels,ES-




13C2-PFUnA
F44:MRM of 1 channel,ES-
\(565>519.8\)



F50:MRM of 2 channels; ES-


13C2-PFUnA


Dataset:
U:|Q4.PRO|results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_5, Date: 01-Aug-2017, Time: 01:12:05, ID: ST170731M2-4 PFC CS1 17G3110, Description: PFC CS1 17 G 3110


F51:MRM of 2 channels,ES\(612.9>569\)

4.2504 .5004 .750




F59:MRM of 2 channels,ES F59:MRM of 2 channels,ES-
\(714.8>669.6\)


4.2504 .5004 .750

\section*{13C2-PFTeDA}


F58:MRM of 4 channels,ES-


13C2-PFTeDA
F59:MRM of 2 channels,ES-



F39:MRM of 2 channels,ES-


\section*{d5-N-ETFOSA}

F42:MRM of 1 channel,ES-
F42:MRM of 1 channel,ES-
\(531.1>168.9\)


\section*{PFHxDA}


F60:MRM of 2 channels,ES-


13C2-PFHxDA


Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_5, Date: 01-Aug-2017, Time: 01:12:05, ID: ST170731M2-4 PFC CS1 17G3110, Description: PFC CS1 17 G 3110

d7-N-MeFOSE
F54:MRM of 1 channel,ES-
F54:MRM of 1 channel, ES-
\(623.1>58.9\)


d9-N-EtFOSE
F56:MRM of 1 channel,ES-



13C3-PFHxS
F17:MRM of 1 channel,ES-




13C8-PFOA
F21:MRM of 1 channel,ES-
\(421.3>376\)
\[
472.2>426.9
\]



13C9-PFNA
F27:MRM of 1 channel,ES-

\section*{13C2-PFHxDA}

F61:MRM of 1 channel,ES \(815>769.7\)

\begin{tabular}{ll} 
Dataset: & U:\Q4.PRO\results\170731M2\170731M2-CRV.qld \\
& \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

Name: 170731M2_5, Date: 01-Aug-2017, Time: 01:12:05, ID: ST170731M2-4 PFC CS1 17G3110, Description: PFC CS1 17 G3110




Dataset: U:IQ4.PRO\results1170731M21170731M2-CRV.qld

Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_6, Date: 01-Aug-2017, Time: 01:22:43, ID: ST170731M2-5 PFC CS2 17G3111, Description: PFC CS2 17 G 3111


\section*{13C3-PFBA}



\section*{13C3-PFPeA}


\section*{PFBS}


F6:MRM of 2 channels,ES-
\(299>99\)


\section*{13C3-PFBS}




13C2-PFHxA


\section*{PFHpA}

F14:MRM of 2 channels,ES\(363>318.9\) \(363>318.9\)
\(4.457 \mathrm{e}+005\)


\section*{13C4-PFHpA}


\section*{PFHxS}


F16:MRM of 2 channels,ES-


1802-PFHxS

\begin{tabular}{ll} 
Dataset: & U:IQ4.PRO|results1170731M21170731M2-CRV.qld \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

\section*{Name: 170731M2_6, Date: 01-Aug-2017, Time: 01:22:43, ID: ST170731M2-5 PFC CS2 17G3111, Description: PFC CS2 17G3111}

\section*{6:2 FTS \\  \\ F22:MRM of 2 channels,ES\(427.1>80\) \(2.670 \mathrm{e}+004\) \\ }


\section*{PFOA}


F19:MRM of 2 channels,ES-


13C2-PFOA
F20:MRM of 1 channel,ES-




13C3-PFBS
F7:MRM of 1 channel,ES-
\(302>98.8\)


\section*{PFNA}

F25:MRM of 2 channels,ES


F25:MRM of 2 channels, ES-




F28:MRM of 2 channels,ES-


Dataset:
U:\Q4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: \(\quad\) Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_6, Date: 01-Aug-2017, Time: 01:22:43, ID: ST170731M2-5 PFC CS2 17G3111, Description: PFC CS2 17G3111

\section*{PFDA}

F35:MRM of 2 channels,ES\(513>468.8\) \(4.709 \mathrm{e}+005\)


F35:MRM of 2 channels,ES-
\(513>219\)


13C2-PFDA


13C2-8:2 FTS



F48:MRM of 2 channels,ES \(584.2>483\)


\section*{d5-N-EtFOSAA}



F43:MRM of 2 channels,ES-


\section*{13C2-PFUnA}

F44:MRM of 1 channel,ES


\section*{PFDS}


F50:MRM of 2 channels,ES


13C2-PFUnA
F44:MRM of 1 channel,ES-
\(565>519.8\)
\(1.279 \mathrm{e}+006\)


Dataset: U:\Q4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_6, Date: 01-Aug-2017, Time: 01:22:43, ID: ST170731M2-5 PFC CS2 17G3111, Description: PFC CS2 17 G3111


PFTeDA
F58:MRM of 4 channels,ES-


F58:MRM of 4 channels,ES-




\section*{PFHxDA}

F60:MRM of 2 channels,ES-


13C2-PFHxDA
F61:MRM of 1 channel,ES-
\(815>769.7\)


\section*{Name: 170731M2_6, Date: 01-Aug-2017, Time: 01:22:43, ID: ST170731M2-5 PFC CS2 17G3111, Description: PFC CS2 17G3111}

d7-N-MeFOSE
F54:MRM of 1 channel,ES\(623.1>58.9\) \(5.444 \mathrm{e}+005\)







13C3-PFHxS
F17:MRM of 1 channel, ES-
\(401.9>79.9\)




13C5-PFHXA
F10:MRM of 1 channel,ES-
\(318>272.9\)
\(9.165 \mathrm{e}+005\)


13C2-PFHxDA


Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: \(\quad\) Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_6, Date: 01-Aug-2017, Time: 01:22:43, ID: ST170731M2-5 PFC CS2 17G3111, Description: PFC CS2 17 G3111

 13C7-PFUnA

F46:MRM of 1 channel,ES-
\(570.1>524.8\)


Dataset:

\section*{U:\Q4.PRO\results\170731M2\170731M2-CRV.qld}

Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed:
Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_7, Date: 01-Aug-2017, Time: 01:33:30, ID: ST170731M2-6 PFC CS3 17G3105, Description: PFC CS3 17G3105


\section*{13C3-PFBA}

F2:MRM of 1 channel,ES-



\section*{13C3-PFPeA}





F16:MRM of 2 channels,ES-



Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: \(\quad\) Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_7, Date: 01-Aug-2017, Time: 01:33:30, ID: ST170731M2-6 PFC CS3 17G3105, Description: PFC CS3 17 G 3105

\section*{6:2 FTS \\  \\ F22:MRM of 2 channels,ES- \\ \(427.1>80\) \(4.670 \mathrm{e}+004\) \\ }


\section*{PFOA}

F19:MRM of 2 channels,ES-


F19:MRM of 2 channels,ES-


13C2-PFOA


\section*{PFNA}
\(\begin{array}{r}\text { F25:MRM of } 2 \text { channels,ES- } \\ 462.9>418.8 \\ 100 \\ \hline\end{array}\)
F25:MRM of 2 channels,ES-

\section*{PFOSA}

F28:MRM of 2 channels,ES 498.1 > 77.8


F28:MRM of 2 channels,ES




F30:MRM of 2 channels,ES-


13C8-PFOS
F33:MRM of 1 channel,ES
\(507>79.9\)


Dataset: U:\Q4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_7, Date: 01-Aug-2017, Time: 01:33:30, ID: ST170731M2-6 PFC CS3 17G3105, Description: PFC CS3 17G3105

\begin{tabular}{ll} 
Dataset: & U:\Q4.PROlresults\170731M21170731M2-CRV.qld \\
& \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

Name: 170731M2_7, Date: 01-Aug-2017, Time: 01:33:30, ID: ST170731M2-6 PFC CS3 17G3105, Description: PFC CS3 17 G3105

\section*{PFDoA}


F51:MRM of 2 channels,ES-
\(612.9>569\) \(9.556 \mathrm{e}+004\)

4.2504 .5004 .750



F34:MRM of 2 channels,ES-

d3-N-MeFOSA


F57:MRM of 2 channels,ES-
\(662.9>319\)


\section*{13C2-PFTeDA}

F59:MRM of 2 channels, ES
\[
\begin{array}{r}
714.8>669.6 \\
7 \text { วつวロ+กnร }
\end{array}
\]
100

\section*{PFTeDA}

F58:MRM of 4 channels,ES-


F58:MRM of 4 channels, ES-


\section*{13C2-PFTeDA}

F59:MRM of 2 channels,ES-
\(714.8>669.6\)


\section*{ \\ F39:MRM of 2 channels,ES- \\ }



U:IQ4.PRO\resultsI170731M21170731M2-CRV.qld
Last Altered: \(\quad\) Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_7, Date: 01-Aug-2017, Time: 01:33:30, ID: ST170731M2-6 PFC CS3 17G3105, Description: PFC CS3 17G3105


Dataset: U:\Q4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_7, Date: 01-Aug-2017, Time: 01:33:30, ID: ST170731M2-6 PFC CS3 17G3105, Description: PFC CS3 17G3105

\section*{13C4-PFOS \\ F31:MRM of 1 channel,ES-}

13C6-PFDA
F38:MRM of 1 channel,ES\(519.1>473.7\)



F46:MRM of 1 channel,ES \(570.1>524.8\)

Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_8, Date: 01-Aug-2017, Time: 01:44:08, ID: ST170731M2-7 PFC CS4 17G3112, Description: PFC CS4 17G3112

\section*{PFBA \\ }

\section*{13C3-PFBA}


PFPeA
F4:MRM of 1 channel,ES-
\(263.1>218.9\)
\(2.354 \mathrm{e}+006\)

13C3-PFPeA


\section*{PFBS}

\section*{PFHxA}




13C2-PFHxA
F9:MRM of 1 channel,ES-
\(315>269.8\) \(2.878 \mathrm{e}+005\)


\section*{PFHpA}

F14:MRM of 2 channels,ES
\(363>318.9\)
\(3.933 \mathrm{e}+006\)

PFHxS

F14:MRM of 2 channels,ES
\(363>169\)




F16:MRM of 2 channels,ES


1802-PFHxS
F18:MRM of 1 channel,ES-
\(403>102.6\)
7.160 .


Dataset: U:IQ4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_8, Date: 01-Aug-2017, Time: 01:44:08, ID: ST170731M2-7 PFC CS4 17G3112, Description: PFC CS4 17G3112



13C5-PFNA




\section*{PFOS}


F30:MRM of 2 channels,ES-


13C8-PFOS
F33:MRM of 1 channel,ES-



\section*{Dataset: U:\Q4.PRO\results\170731M21170731M2-CRV.qld}

Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed:
Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

\section*{Name: 170731M2_8, Date: 01-Aug-2017, Time: 01:44:08, ID: ST170731M2-7 PFC CS4 17G3112, Description: PFC CS4 17G3112}


\section*{13C2-PFDA}

F36:MRM of 1 channel,ES \(515.1>469.9\) \(7.630 \mathrm{e}+005\)



\section*{13C2-8:2 FTS
F41:MRM of 1 channel,ES-
\[
529.1>508.7
\]}








PFDS


\begin{tabular}{ll} 
Dataset: & U:\Q4.PRO\results\170731M21170731M2-CRV.qld \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

Name: 170731M2_8, Date: 01-Aug-2017, Time: 01:44:08, ID: ST170731M2-7 PFC CS4 17G3112, Description: PFC CS4 17 G3112


F51:MRM of 2 channels, ES-
\(612.9>569\) \(4.476+005\)




F34:MRM of 2 channels,ES-




F57:MRM of 2 channels,ES-
\(662.9>319\)




\section*{PFHxDA}




Vista Analytical Laboratory
Dataset:
U:IQ4.PROIresults1170731M21170731M2-CRV.qld
Last Altered: \(\quad\) Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_8, Date: 01-Aug-2017, Time: 01:44:08, ID: ST170731M2-7 PFC CS4 17G3112, Description: PFC CS4 17 G3112



Dataset: U:\Q4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_8, Date: 01-Aug-2017, Time: 01:44:08, ID: ST170731M2-7 PFC CS4 17G3112, Description: PFC CS4 17 G3112

\section*{13C4-PFOS \\ F31:MRM of 1 channel,ES \(503>79.9\) \\  \\ 3.7504 .0004 .250}

13C7-PFUnA
F46:MRM of 1 channel,ES


Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_9, Date: 01-Aug-2017, Time: 01:54:46, ID: ST170731M2-8 PFC CS5 17G3113, Description: PFC CS5 17 G 3113




13C3-PFPeA
F5:MRM of 1 channel,ES-
\(266>221.8\)
\(5.778 \mathrm{e}+005\)


\section*{PFBS}


F6:MRM of 2 channels,ES




\section*{PFHxA}




\section*{PFHpA}

F14:MRM of 2 channels,ES\(363>318.9\)


13C4-PFHpA
F15:MRM of 1 channel,ES-
\(367.2>321.8\)



\section*{PFHxS}


1802-PFHxS


Dataset: U:\Q4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed:
Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_9, Date: 01-Aug-2017, Time: 01:54:46, ID: ST170731M2-8 PFC CS5 17G3113, Description: PFC CS5 17 G 3113


F22:MRM of 2 channels,ES-
\(427.1>80\)
\(4.026 \mathrm{e}+005\)






F20:MRM of 1 channel,ES-
\[
\begin{array}{r}
414.9>369.7 \\
1.267 \mathrm{e}+006
\end{array}
\]



F24:MRM of 4 channels,ES\(448.9>79.9\)


13C3-PFBS


\section*{PFNA}

F25:MRM of 2 channels,ES-


F25:MRM of 2 channels,ES-


13C5-PFNA
F26:MRM of 1 channel,ES-



F28:MRM of 2 channels,ES-


13C8-PFOSA



F30:MRM of 2 channels,ES-


13C8-PFOS
F33:MRM of 1 channel,ES-
\(507>79.9\)


Dataset: U:IQ4.PRO\results\170731M2\170731M2-CRV.qld
\begin{tabular}{ll} 
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

\section*{Name: 170731M2_9, Date: 01-Aug-2017, Time: 01:54:46, ID: ST170731M2-8 PFC CS5 17G3113, Description: PFC CS5 17 G3113}



8:2 FTS


F40:MRM of 2 channels,ES-
\(527>80\)


13C2-8:2 FTS
F41:MRM of 1 channel,ES-
\(529.1>508.7\)



F45:MRM of 2 channels,ES-





13C2-PFUnA
F44:MRM of 1 channel,ES-
\[
\begin{array}{l}565>519.8\end{array}
\]


PFDS


F50:MRM of 2 channels,ES-
\(598.9>80\)


13C2-PFUnA
F44:MRM of 1 channel,ES-

\begin{tabular}{ll} 
Dataset: & U:IQ4.PRO\results\170731M21170731M2-CRV.qld \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

Name: 170731M2_9, Date: 01-Aug-2017, Time: 01:54:46, ID: ST170731M2-8 PFC CS5 17G3113, Description: PFC CS5 17 G3113


PFTeDA
F58:MRM of 4 channels,ES-


F58:MRM of 4 channels,ES-


\section*{13C2-PFTeDA}

F59:MRM of 2 channels,ES-
\(714.8>669.6\)



F39:MRM of 2 channels,ES-





\section*{PFHxDA}

F60:MRM of 2 channels,ES-


F60:MRM of 2 channels,ES-


13C2-PFHxDA
F61:MRM of 1 channel,ES-

\begin{tabular}{ll} 
Dataset: & U:IQ4.PRO\results\170731M21170731M2-CRV.qld \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

Name: 170731M2_9, Date: 01-Aug-2017, Time: 01:54:46, ID: ST170731M2-8 PFC CS5 17G3113, Description: PFC CS5 17 G3113

d7-N-MeFOSE
F54:MRM of 1 channel,ES \(623.1>58.9\) \(5.544 \mathrm{e}+005\)


d9-N-EtFOSE
F56:MRM of 1 channel,ES-







13C2-PFHxDA
F61:MRM of 1 channel,ES \(815>769.7\) \(3.737 \mathrm{e}+005\)


Dataset: U:\Q4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_9, Date: 01-Aug-2017, Time: 01:54:46, ID: ST170731M2-8 PFC CS5 17G3113, Description: PFC CS5 17 G3113


Dataset: U:\Q4.PRO\results\170731M21170731M2-CRV.qld
Last Altered: \(\quad\) Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_10, Date: 01-Aug-2017, Time: 02:05:40, ID: ST170731M2-9 PFC CS6 17G2801, Description: PFC CS6 17 G2801

\begin{tabular}{ll} 
Dataset: & U:IQ4.PRO\results\170731M21170731M2-CRV.qld \\
Last Altered: & Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time
\end{tabular}

Name: 170731M2_10, Date: 01-Aug-2017, Time: 02:05:40, ID: ST170731M2-9 PFC CS6 17G2801, Description: PFC CS6 17 G 2801


PFNA



\section*{13C5-PFNA}

F26:MRM of 1 channel,ES-



F28:MRM of 2 channels,ES-




F30:MRM of 2 channels,ES


13C8-PFOS
F33:MRM of 1 channel,ES-
\(507>79.9\)
\(1.946 e+005\)


Last Altered: \(\quad\) Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_10, Date: 01-Aug-2017, Time: 02:05:40, ID: ST170731M2-9 PFC CS6 17G2801, Description: PFC CS6 17G2801


Dataset: U:\Q4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_10, Date: 01-Aug-2017, Time: 02:05:40, ID: ST170731M2-9 PFC CS6 17G2801, Description: PFC CS6 17 G2801


F51:MRM of 2 channels,ES\(612.9>569\) \(2.828 e+006\)


13C2-PFDoA
F52:MRM of 1 channel,ES\(615>569.7\) \(1.291 e+005\)



F34:MRM of 2 channels,ES-

d3-N-MeFOSA



F57:MRM of 2 channels,ES-



F59:MRM of 2 channels,ES-


\section*{PFTeDA}

F58:MRM of 4 channels,ES\(712.9>668.8\) \(1.753 \mathrm{e}+007\)



13C2-PFTeDA
F59:MRM of 2 channels,ES-



F39:MRM of 2 channels,ES-
\(526.1>219\)




Dataset: U:\Q4.PRO\results\170731M2\170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_10, Date: 01-Aug-2017, Time: 02:05:40, ID: ST170731M2-9 PFC CS6 17G2801, Description: PFC CS6 17G2801


Vista Analytical Laboratory
Dataset: U:IQ4.PROYresults1170731M21170731M2-CRV.qld
Last Altered: Tuesday, August 01, 2017 10:11:08 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:12:04 Pacific Daylight Time

Name: 170731M2_10, Date: 01-Aug-2017, Time: 02:05:40, ID: ST170731M2-9 PFC CS6 17G2801, Description: PFC CS6 17G2801




Name: 170731M2_13, Date: 01-Aug-2017, Time: 02:38:37, ID: SS170731M2-1 PFC SSS 17G3106, Description: PFC SSS 17G3106


Name: 170731M2_13, Date: 01-Aug-2017, Time: 02:38:37, ID: SS170731M2-1 PFC SSS 17G3106, Description: PFC SSS 17G3106
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline  & \# Name & Trace & Area & IS Area & RRF & Pred.RT & RT & Resp. & Conc. & \%Rec \\
\hline 32 & 32 13C4-PFHpA & 367.2 > 321.8 & 4.36 e 4 & 3.98 e 4 & 0.414 & 3.45 & 3.43 & 5.48 & 13.2 & 105.9 \\
\hline 33. & 33 1802-PFHxS & \(403>102.6\) & 3.75 e3 & 7.57 e 3 & 0.475 & 3.56 & 3.51 & 6.19 & 13.0 & 104.2 \\
\hline 34. & 34 13C2-6:2 FTS & \(429.1>408.9\) & 1.03 e 4 & 4.79 e 4 & 0.214 & 3.64 & 3.63 & 2.68 & 12.5 & 100.3 \\
\hline 35. & 35 13C2-PFOA & \(414.9>369.7\) & 6.49 e 4 & 4.79 e 4 & 1.298 & 3.65 & 3.64 & 16.9 & 13.0 & 104.2 \\
\hline 36. & 36 13C5-PFNA & 468.2 > 422.9 & 5.50 e 4 & 4.99 e 4 & 1.094 & 3.83 & 3.82 & 13.8 & 12.6 & 100.7 \\
\hline 37 W, 4 . & 37 13C8-PFOSA & \(506.1>77.7\) & 6.35 e 3 & 5.45 e 4 & 0.124 & 3.84 & 3.83 & 1.46 & 11.7 & 93.5 \\
\hline 38. & 38 13C8-PFOS & \(507>79.9\) & 1.06 e 4 & 8.57 e 3 & 1.153 & 3.89 & 3.87 & 15.5 & 13.4 & 107.4 \\
\hline 39. & 39 13C2-PFDA & \(515.1>469.9\) & 5.65 e 4 & 5.31 e 4 & 1.059 & 4.01 & 3.99 & 13.3 & 12.6 & 100.6 \\
\hline 40. & 40 13C2-8:2 FTS & \(529.1>508.7\) & 6.05 e 3 & 5.31 e 4 & 0.129 & 4.00 & 3.98 & 1.43 & 11.1 & 88.7 \\
\hline 41. & 41 d3-N-MeFOSAA & \(573.3>419\) & 1.35 e 4 & 5.45 e 4 & 0.019 & 4.03 & 4.02 & 3.09 & 160 & 98.5 \\
\hline 42 & \(42 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}\) & \(589.3>419\) & 1.25 e 4 & 5.45 e 4 & 0.019 & 4.12 & 4.09 & 2.87 & 151 & 93.2 \\
\hline 43 & 43 13C2-PFUnA & \(565>519.8\) & 6.16 e 4 & 5.45 e 4 & 1.172 & 4.17 & 4.16 & 14.1 & 12.1 & 96.4 \\
\hline 44 & 44 13C2-PFDoA & \(615>569.7\) & 6.21 e 3 & 5.45 e 4 & 0.118 & 4.34 & 4.31 & 1.42 & 12.0 & 96.1 \\
\hline 45 & 45 d3-N-MeFOSA & \(515.2>168.9\) & 2.44 e 4 & 5.45 e 4 & 0.040 & 4.29 & 4.38 & 5.60 & 138 & 92.3 \\
\hline 46 & 46 13C2-PFTeDA & 714.8 > 669.6 & 4.04 e 4 & 5.45 e 4 & 0.801 & 4.68 & 4.66 & 9.26 & 11.6 & 92.5 \\
\hline 47 . \({ }^{\text {ctim}}\) & 47 d5-N-ETFOSA & \(531.1>168.9\) & 3.29 e 4 & 5.45 e 4 & 0.055 & 5.01 & 4.97 & 7.55 & 137 & 91.4 \\
\hline 48 . \({ }^{\text {a }}\) & 48 13C2-PFHxDA & \(815>769.7\) & 1.96 e 4 & 5.45 e 4 & 0.991 & 5.06 & 5.03 & 4.50 & 4.54 & 90.7 \\
\hline 49 & 49 d7-N-MeFOSE & \(623.1>58.9\) & 3.90 e 4 & 5.45 e 4 & 0.065 & 5.42 & 5.43 & 8.94 & 137 & 91.4 \\
\hline 50 - & 50 d9-N-EtFOSE & \(639.2>58.8\) & 3.88 e 4 & 5.45 e 4 & 0.065 & 5.59 & 5.61 & 8.89 & 137 & 91.5 \\
\hline 51. & 51 13C4-PFBA & \(217>171.8\) & 1.36 e 4 & 1.36 e 4 & 1.000 & 1.41 & 1.40 & 12.5 & 12.5 & 100.0 \\
\hline \(52 \times\) & 52 13C5-PFHxA & \(318>272.9\) & 3.98 e 4 & 3.98 e 4 & 1.000 & 3.19 & 3.17 & 5.00 & 5.00 & 100.0 \\
\hline 53 & 53 13C3-PFHxS & \(401.9>79.9\) & 7.57 e 3 & 7.57 e 3 & 1.000 & 3.56 & 3.51 & 12.5 & 12.5 & 100.0 \\
\hline 54. & 54 13C8-PFOA & \(421.3>376\) & 4.79 e 4 & 4.79 e 4 & 1.000 & 3.65 & 3.64 & 12.5 & 12.5 & 100.0 \\
\hline 55 & 55 13C9-PFNA & \(472.2>426.9\) & 4.99 e 4 & 4.99 e 4 & 1.000 & 3.83 & 3.82 & 12.5 & 12.5 & 100.0 \\
\hline 56 & 56 13C4-PFOS & \(503>79.9\) & 8.57 e 3 & 8.57 e 3 & 1.000 & 3.89 & 3.87 & 12.5 & 12.5 & 100.0 \\
\hline 57 & 57 13C6-PFDA & \(519.1>473.7\) & 5.31 e 4 & 5.31 e 4 & 1.000 & 4.01 & 3.99 & 12.5 & 12.5 & 100.0 \\
\hline 58 & 58 13C7-PFUnA & \(570.1>524.8\) & 5.45 e 4 & 5.45e4 & 1.000 & 4.17 & 4.16 & 12.5 & 12.5 & 100.0 \\
\hline
\end{tabular}
\begin{tabular}{ll} 
Dataset: & U:\Q4.PRO\results\170731M2\170731M2-13.qld \\
Last Altered: & Tuesday, August 01, 2017 10:24:48 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:25:30 Pacific Daylight Time
\end{tabular}

Method: U:IQ4.PROIMethDBIPFAS_FULL_7-20-17.mdb 01 Aug 2017 09:55:07
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08
Name: 170731M2_13, Date: 01-Aug-2017, Time: 02:38:37, ID: SS170731M2-1 PFC SSS 17G3106, Description: PFC SSS 17G3106

\section*{Total PFBS}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & \multicolumn{2}{|l|}{} & RT & Area & IS Area & \multicolumn{3}{|l|}{Response Primary Flags . Wonc.} \\
\hline 13 & 3 PFBS & \(299>79.7\) & 2.93 & 4357.564 & 3405.490 & 15.995 & bb & 8.45 \\
\hline
\end{tabular}

\section*{Total PFHxS}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline - & \# Name & - 2 - Trace & & \multicolumn{2}{|l|}{RT} & IS Area & \multicolumn{2}{|l|}{Response Primary Flags} & Conc. \\
\hline 4 & 6 PFHxS & \(398.9>79.6\) & & 3.51 & 4174.485 & 3749.125 & 13.918 & MM & 8.26 \\
\hline
\end{tabular}

\section*{Total PFOA}


\section*{Total PFOS}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & \# Name & Trace & RT & Area & \multicolumn{4}{|l|}{IS Area Response Primary Flags . 2 . Conc} \\
\hline 1. & - 12 PFOS & \(499>79.9\) & 3.87 & 7204.411 & 10619.089 & 8.480 & bb & 8.29 \\
\hline
\end{tabular}

\section*{Total N -Me-FOSAA}


\section*{Total N-EtFOSAA}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline 4-3 & \multicolumn{2}{|l|}{\# Name} & C RT & Area & 15 Area & Response & Primary & Conc. \\
\hline 1 : \({ }^{\text {a }}\) & 16 N -EtFOSAA & \(584.2>419\) & 4.09 & 11783.439 & 12511.836 & 153.040 & bb & 9.93 \\
\hline \(2+3\) & 64 Total N-EtFOSAA & \(584.2>419\) & 4.33 & 9.825 & 12511.836 & 0.128 & bb & 0.0294 \\
\hline
\end{tabular}
\begin{tabular}{ll} 
Dataset: & U:\Q4.PRO\results\170731M2\170731M2-13.qld \\
Last Altered: & Tuesday, August 01, 2017 10:24:48 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:25:30 Pacific Daylight Time
\end{tabular}

\section*{Method: U:IQ4.PROIMethDBIPFAS_FULL_7-20-17.mdb 01 Aug 2017 09:55:07}

\section*{Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_7-31-17-FULL.cdb 01 Aug 2017 10:11:08}

Name: 170731M2_13, Date: 01-Aug-2017, Time: 02:38:37, ID: SS170731M2-1 PFC SSS 17G3106, Description: PFC SSS 17G3106


\section*{13C3-PFBA}

F2:MRM of 1 channel,ES-



13C3-PFPeA
F5:MRM of 1 channel,ES-

\section*{PFBS}



13C3-PFBS






\section*{13C4-PFHpA}

F15:MRM of 1 channel,ES-



F16:MRM of 2 channels,ES-


1802-PFHxS
F18:MRM of 1 channel,ES-

```

Dataset:
U:IQ4.PRO\results1170731M21170731M2-13.qld
Last Altered: Tuesday, August 01, 2017 10:24:48 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:25:30 Pacific Daylight Time

```

Name: 170731M2_13, Date: 01-Aug-2017, Time: 02:38:37, ID: SS170731M2-1 PFC SSS 17G3106, Description: PFC SSS 17G3106


F22:MRM of 2 channels,ES-
\(427.1>80\)
\(4.146 \mathrm{e}+004\)


13C2-6:2 FTS
F23:MRM of 1 channel,ES-
\(429.1>408.9\)




\section*{13C2-PFOA}

F20:MRM of 1 channel,ES-
\(414.9>369.7\)



F24:MRM of 4 channels,ES-






F28:MRM of 2 channels,ES-




13C8-PFOS
F33:MRM of 1 channel, ES-
\(507>79.9\)

\begin{tabular}{ll} 
Dataset: & U:IQ4.PRO\results\170731M2\170731M2-13.qld \\
Last Altered: & Tuesday, August 01, 2017 10:24:48 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:25:30 Pacific Daylight Time
\end{tabular}

Name: 170731M2_13, Date: 01-Aug-2017, Time: 02:38:37, ID: SS170731M2-1 PFC SSS 17G3106, Description: PFC SSS 17G3106


Dataset:
U:IQ4.PRO\results\170731M21170731M2-13.qid
Last Altered: Tuesday, August 01, 2017 10:24:48 Pacific Daylight Time
Printed: \(\quad\) Tuesday, August 01, 2017 10:25:30 Pacific Daylight Time

Name: 170731M2_13, Date: 01-Aug-2017, Time: 02:38:37, ID: SS170731M2-1 PFC SSS 17G3106, Description: PFC SSS 17 G 3106


\section*{13C2-PFDoA}

F52:MRM of 1 channel,ES-
F52.MRM of 1 channel, ES
\(615>569.7\)

4.2504 .5004 .750


F34:MRM of 2 channels,ES\(512.1>219\)


\section*{d3-N-MeFOSA}

F37:MRM of 1 channel,ES-



F57:MRM of 2 channels,ES\(662.9>319\)


\section*{13C2-PFTEDA}

F59:MRM of 2 channels,ES-


F58:MRM of 4 channels,ES
\(712.9>369\)


\section*{13C2-PFTeDA}

F59:MRM of 2 channels,ES-
FS9:MRM of 2 channels,ES
\(714.8>669.6\)



F39:MRM of 2 channels, ES-
\(526.1>219\)

d5-N-ETFOSA
F42:MRM of 1 channel,ES-
\(531.1>168.9\)


\section*{PFHxDA}

F60:MRM of 2 channels,ES 812.8 > 768.9


13C2-PFHxDA

\begin{tabular}{ll} 
Dataset: & U:\Q4.PRO\results\170731M2\170731M2-13.qld \\
Last Altered: & Tuesday, August 01, 2017 10:24:48 Pacific Daylight Time \\
Printed: & Tuesday, August 01, 2017 10:25:30 Pacific Daylight Time
\end{tabular}

Name: 170731M2_13, Date: 01-Aug-2017, Time: 02:38:37, ID: SS170731M2-1 PFC SSS 17G3106, Description: PFC SSS 17 G3106

Dataset: U:\Q4.PROVresults\170731M21170731M2-13.qld

Last Altered: \(\quad\) Tuesday, August 01, 2017 10:24:48 Pacific Daylight Time
Printed: Tuesday, August 01, 2017 10:25:30 Pacific Daylight Time

Name: 170731M2_13, Date: 01-Aug-2017, Time: 02:38:37, ID: SS170731M2-1 PFC SSS 17G3106, Description: PFC SSS 17 G3106



"sys_sample_code","lab_anl_method_name","analysis_date","analysis_time","total_or_dissolved","column_number","t est_type","cas_rn","chemical_name","result_value","result_error_delta","result_type_code","reportable_result","detect_ flag","lab_qualifiers","organic_yn","method_detection_limit","reporting_detection_limit","quantatation_limit","result_u nit","detection_limit_unit","tic_retention_time","result_comment","qc_original_conc","qc_spike_added","qc_spike_me asured","qc_spike_recovery","qc_dup_original_conc","qc_dup_spike_added","qc_dup_spike_measured","qc_dup_spik e_recovery","qc_rpd","qc_spike_lcl","qc_spike_ucl","qc_rpd_cl","qc_spike_status","qc_dup_spike_status","qc_rpd_sta tus"
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","1.84","5.17","8.23","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","","","TRG","Yes","N","U","Y","2.24","5.17","8.23","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","","","TRG","Yes","N","U","Y","0.608","5.17","8.23","NG_L","NG_L","","","","","","","","","","","","",""," " "" " " " ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC
ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.975","5.17","8.23","NG_L","NG_L","","","","","","","","","","","","",""," " "" "" ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","","","TRG","Yes","N","U","Y","0.670","5.17","8.23","NG_L","NG_L","","","","","","","","","","","","","","", "" "" ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.831","5.17","8.23","NG_L","NG_L","","","","","","","","","","","","","","","","","" "EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000"," \(375-95-1 "\), ,"PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.834","5.17","8.23","NG_L","NG_L","","","","","","","","","","","","","","", "" "" ""
"EB03-20170712","537 MOD","07/28/17","00:11","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","1.53","5.17","8.23","NG_L","NG_L","","","","",","","","","","","","","",""," " "" ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","2355-31-


"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC
ACID
(PFUNA)","","","TRG","Yes","N","U","Y","1.08","5.17","8.23","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","1.41","5.17","8.23","NG_L","NG_L","","","","","",","","","","","","",

"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","","","TRG","Yes","N","U","Y","0.815","5.17","8.23","NG_L","NG_L","","","","","","","","","","","","",""," ","","",""
"EB03-20170712","537_MOD","07/31/17","16:04","N","NA","000","72629-94-
8","PFTrDA","","","TRḠ","Yes","N","U","Y","0.508","5.17","8.23","NG_L","NG_L","","","","","","","","","","","",""," ","","","","
"EB03-20170712","537_MOD","07/31/17","16:04","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.777","5.17","8.23","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","13C3-PFBS","13C3-
PFBS","119","","IS","Yes","Y","","Y","","",","PCT_REC","","",","","100","119","119","","","","",","50","150","",""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","13C2-PFHxA","13C2-
PFHxA","118","","IS","Yes","Y","","Y",","","","PCT_REC","",","",","100","118","118","","",","","","50","150","", "t" "t" " 11
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","13C4-PFHpA","13C4-
PFHpA","111","","IS","Yes","Y","","Y",","","","PCT_REC","",","",",",100","111","111","","",","","","50","150","", "1" "1" "!"
"EB03-20170712","537 MOD","07/28/17","00:11","N","NA","000","18O2-PFHxS","18O2-
PFHxS","110",","IS","Yes","Y","","Y","",","","PCT_REC","","",","","100","110","110",","","",","","50","150","",

"EB03-20170712","537 MOD","07/28/17","00:11","N","NA","000","13C2-PFOA","13C2-
PFOA","122","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","122","122","",","","","","50","150",""," " " " " " \("\)
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","13C8-PFOS","13C8-
PFOS","118","","IS","Yes","Y","","Y",","","","PCT_REC","",","","","100","118","118","","",","","","50","150",""," """"
"EB03-20170712","537 MOD","07/28/17","00:11","N","NA","000","13C5-PFNA","13C5-
PFNA","95.8","","IS","Yes","Y","","Y","","",","PCT_REC","","",","","100","95.8","95.8","","","",","","50","150","" "t" "t" ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","13C2-PFDA","13C2-
PFDA","101","","IS","Yes","Y","","Y",","","","PCT_REC","",","","","100","101","101","","","",","","50","150",""," " "" ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","95.8",","IS","Yes","Y","","Y","","",","PCT_REC","","",","","100","95.8","95.8","",","","","","50","15 0","",","",""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","13C2-PFUnA","13C2-
PFUnA","90.1","","IS","Yes","Y",","Y","",","","PCT_REC","","",","","100","90.1","90.1","",","","","","50","150"," " "" "" ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","98.4","","IS","Yes","Y","","Y","","",","PCT_REC",","","",","100","98.4","98.4","",","","","","50","150 " "" "" "" ""
"EB03-20170712","537_MOD","07/28/17","00:11","N","NA","000","13C2-PFDoA","13C2-
PFDoA","99.7","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","99.7","99.7","","",","","","50","150"," ","","","
"EB03-20170712","537_MOD","07/31/17","16:04","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","71.0","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","71.0","71.0","","",","","","50","150" "","","",""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","375-73-
5","PFBS","4.19","","TRG","Yes","Y","J","Y","1.94","5.43","8.66","NG_L","NG_L","",","",","","","","",","","",""," """" "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","307-244","PERFLUOROHEXANOIC ACID
(PFHXA)","8.79","","TRG","Yes","Y","","Y","2.36","5.43","8.66","NG_L","NG_L","","","",","","","","",","","","","" "" "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","375-85-

\section*{9","PERFLUOROHEPTANOIC ACID}
(PFHPA)","3.60","","TRG","Yes","Y","J","Y","0.640","5.43","8.66","NG_L","NG_L","",","","",","","","","",","","", "" "" "" "" ""
"5-GW-05 DGMW41B-20170712","537 MOD","07/28/17","00:22","N","NA","000","355-464","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","11.2","","TRG","Yes","Y","","Y","1.03","5.43","8.66","NG_L","NG_L","",","","","",","","",","","","","", "" "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","335-671","PERFLUOROOCTANOIC ACID
(PFOA)","27.8","","TRG","Yes","Y",","Y","0.705","5.43","8.66","NG_L","NG_L","",","","",","","","",","","","","", "t" "t" "t" " 11
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","1763-23-
1","HEPTĀDECAFLUOROACTANESULFONIC ACID SOLUTION
","4.13","","TRG","Yes","Y","J","Y","0.874","5.43","8.66","NG L","NG_L","","",","","","",","","","","","","",","","" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","375-95-
1","PERFLUORONONANOIC ACID
(PFNA)","",","TRG","Yes","N","U","Y","0.877","5.43","8.66","NG_L","NG_L","","",","","","",","","","",","","","", "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","335-762","PERFLUORODECANOIC ACID
(PFDA)","",",",TRG","Yes","N","U","Y","1.61","5.43","8.66","NG_L","NG_L","","","",","","","",","","",","","",""," " "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","1.79","5.43","8.66","NG_L","NG_L","",","","","",","","","","","",""

"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","2058-94-
8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","1.14","5.43","8.66","NG_L","NG_L","","","",","","","","",","","","","","" "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","2991-50-
6","EtFOSAAA","",","TRG","Yes","N","Ū","Y","1.48","5.43","8.66","NG_L","NG_L","","",","","","","","",","","","", "t" "r" "r " "r " "
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","",","TRG","Yes","N","U","Y","0.857","5.43","8.66","NG_L","NG_L","","",","",","","","","","",","",""," ","" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/31/17","16:15","N","NA","000","72629-94-
8","PFTrDA","",","TRG","Yes","N","U","Y","0.535","5.43","8.66","NG L","NG L","",","","","","","","",","","",""," " "" "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/31/17","16:15","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.817","5.43","8.66","NG_L","NG_L","",","","","",","","","","","","", "" "" "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","13C3-PFBS","13C3-
PFBS","116","","IS","Yes","Y","","Y","","",",",PCT_REC","","","",","100","116","116","",","","","","50","150","","" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","13C2-PFHxA","13C2-
PFHxA","112","","IS","Yes","Y","","Y","","","","PCT_REC","",","","","100","112","112","","",","","","50","150","", "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","13C4-PFHpA","13C4-
PFHpA","110","","IS","Yes","Y","","Y","","",",",PCT_REC","",","","","100","110","110","","",","","","50","150","", "" "" ""
"5-GW-05 DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","18O2-PFHxS","18O2-
PFHxS","104",","IS","Yes","Y","","Y","","","","PCT REC","","","",","100","104","104","",","","",","50","150","", "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","13C2-PFOA","13C2-
PFOA","107","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","107","107","",","","","","50","150",""," " "" ""
"5-GW-05 DGMW41B-20170712","537 MOD","07/28/17","00:22","N","NA","000","13C8-PFOS","13C8-
PFOS","109","","IS","Yes","Y","","Y","","","","PCT REC","","","",","100","109","109","",","","","","50","150","","" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","13C5-PFNA","13C5PFNA","95.6","","IS","Yes","Y","","Y","","",","PCT_REC","","",","","100","95.6","95.6","",","","","","50","150",""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","13C2-PFDA","13C2-
PFDA","95.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","95.1","95.1","","","","","","50","150","" "'" "t" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","d3-MeFOSAA","d3MeFOSAA","97.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","97.8","97.8","","","","","","50","15 0","","","",""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","13C2-PFUnA","13C2-
PFUnA","96.8","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","96.8","96.8","","","","","","50","150"," " "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","d5-EtFOSAA","d5EtFOSAA","104","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","104","104","","","","","","50","150", "" "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/28/17","00:22","N","NA","000","13C2-PFDoA","13C2-
PFDoA","-103","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","103","103","","","","","","50","150","", "" "" ""
"5-GW-05_DGMW41B-20170712","537_MOD","07/31/17","16:15","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","55.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","55.3","55.3","","","","","","50","150" "" "" "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","1.90","5.30","8.50","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","307-244","PERFLUOROHEXANOIC ACID
(PFHXA)","7.61","","TRG","Yes","Y","J","Y","2.32","5.30","8.50","NG_L","NG_L","","","","","","","","","","","",""," ","","","",""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","375-85-
9","PERFLUOROHEPTANOIC ACID
(PFHPA)","","","TRG","Yes","N","U","Y","0.628","5.30","8.50","NG_L","NG_L","","","","","","","","","","","","",""," " "" "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","355-464","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","2.38","","TRG","Yes","Y","J","Y","1.01","5.30","8.50","NG_L","NG_L","","","","","","","","","","",",""," " "" "" " " " ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","335-67-
1","PERFLUOROOCTANOIC ACID
(PFOA)","3.53","","TRG","Yes","Y","J","Y","0.692","5.30","8.50","NG_L","NG_L","","","","","","","","","","","","","" "" "" "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.857","5.30","8.50","NG_L","NG_L","","","","","","","","","","","","","","","","",""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","375-95-

\section*{1","PERFLUORONONANOIC ACID}
(PFNA)","","","TRG","Yes","N","U","Y","0.861","5.30","8.50","NG_L","NG_L","","","","","","","","","","","","","","", "" "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","335-76-
2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","1.58","5.30","8.50","NG_L","NG_L","","","","","","","","","","","","","",""," ","",""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","1.75","5.30","8.50","NG_L","NG_L","","","","","","","","","","","","" ""","""","","
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","2058-948","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","1.12","5.30","8.50","NG_L","NG_L","","","",","","","",","","","","","","" "!" "t" "t"
"18-Gُ'GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","2991-50-
6","EtFOSAA","",",",TRG","Yes","N","U","Y","1.46","5.30","8.50","NG_L","NG_L","","",","","","","","",","","","",

"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","",",",TRG","Yes","N","U","Y","0.841","5.30","8.50","NG_L","NG_L","",","","","",","","","",","","",""," " "" "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/31/17","16:25","N","NA","000","72629-94-
8","PFTrDA","",",",TRG","Yes","N","U","Y","0.525","5.30","8.50","NG L","NG L","",","","","","","",","","","",""," " "" "" "" ""
"18-GW-18BGM03E-20170712","537 MOD","07/31/17","16:25","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.802","5.30","8.50","NG_L","NG_L","",","","","",","","","",","","", "" "" "" "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","13C3-PFBS","13C3-
PFBS","111","","IS","Yes","Y","","Y","","",",",PCT_REC","","","","","100","111","111","",","","","","50","150","","" "" ""
"18-GW-18BGM03E-20170712","537 MOD","07/28/17","00:33","N","NA","000","13C2-PFHxA","13C2-
PFHxA","107","","IS","Yes","Y","","Ȳ",","","","PCT REC","",","","","100","107","107","","",","","","50","150","", "" "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","13C4-PFHpA","13C4-
PFHpA","111","","IS","Yes","Y","","Y","","",","PCT_REC","",","","","100","111","111","","",","","","50","150","", "" "" ""
"18-GW-18BGM03E-20170712","537 MOD","07/28/17","00:33","N","NA","000","18O2-PFHxS","18O2-
PFHxS","112",","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","112","112","",","","",","50","150","", "" "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","13C2-PFOA","13C2-
PFOA","108","","IS","Yes","Y","","Y","",","","PCT_REC",","","","","100","108","108","",","","",","50","150",""," " "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","13C8-PFOS","13C8-
PFOS","116",","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","116","116","",","","","","50","150","",""
""""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","13C5-PFNA","13C5-
PFNA","104","","IS","Yes","Y","","Y",","","","PCT_REC","",","","","100","104","104","",","","",","50","150",""," " "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","13C2-PFDA","13C2-
PFDA","95.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","95.5","95.5","","","",","","50","150","" "","",""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","85.0","","IS","Yes","Y","","Y","",","","PCT_REC","","",","","100","85.0","85.0","","",","","","50","15 0","","",",""
"18-GW-18BGM03E-20170712","537 MOD","07/28/17","00:33","N","NA","000","13C2-PFUnA","13C2-
PFUnA","89.4","","IS","Yes","Y",",",Y","",","","PCT_REC","","",","","100","89.4","89.4","",","","","","50","150"," " "" "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/28/17","00:33","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","90.4","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","90.4","90.4","","",","","","50","150 ","","","","
"18-GW-18BGM03E-20170712","537 MOD","07/28/17","00:33","N","NA","000","13C2-PFDoA","13C2-
PFDoA","95.2","","IS","Yes","Y",","Y","",","","PCT_REC","","",","","100","95.2","95.2","","",","","","50","150"," " "" "" ""
"18-GW-18BGM03E-20170712","537_MOD","07/31/17","16:25","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","56.3","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","56.3","56.3","","",","","","50","150" "" "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","375-73-
5","PFBS","8.97","","TRG","Yes","Y","","Y","1.91","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","","" "" "" " " " ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID
(PFHXA)","41.2","","TRG","Yes","Y","","Y","2.32","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","","" "" "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","375-85-
9","PERFLUOROHEPTANOIC ĀCID
(PFHPA)","5.95","","TRG","Yes","Y","J","Y","0.629","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","355-464","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","18.9","","TRG","Yes","Y","","Y","1.01","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","","", "" "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","40.3","","TRG","Yes","Y","","Y","0.693","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","","", "" "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTĀNESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.859","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","","","","","","" "24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","375-95-

\section*{1","PERFLUORONONANOIC ACID}
(PFNA)","","","TRG","Yes","N","U","Y","0.862","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","","","", "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","1.59","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","","",""," ","","
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","1.76","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","" "" "" "" "" ""
'24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","2058-948","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","1.12","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","1.46","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.843","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","",""," ","","",""
"24-GW-24IN03-20170712","537_MOD","07/31/17","16:36","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.526","5.34","8.52","NG_L","NG_L","","","","","","","","","","","",""," " "" "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/31/17","16:36","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.804","5.34","8.52","NG_L","NG_L","","","","","","","","","","","","", "","" "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","13C3-PFBS","13C3-
PFBS","121","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","121","121","","","","",","50","150","","" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","13C2-PFHxA","13C2-

PFHxA","115","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","115","115","","","","","","50","150","", "" "'" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","13C4-PFHpA","13C4-
PFHpA","112","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","112","112","","","","","","50","150","", "" " " " "
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","18O2-PFHxS","18O2-
PFHxS","119","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","119","119","","","","","","50","150","", "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","13C2-PFOA","13C2-
PFOA","108","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","108","108","","","","","","50","150",""," " "" ""
"24-GW-24IN03-20170712","537 MOD","07/28/17","00:44","N","NA","000","13C8-PFOS","13C8-
PFOS","107","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","107","107","","","","","","50","150","","" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","13C5-PFNA","13C5-
PFNA","110","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","110","110","","","","","","50","150",""," " "" ""
"24-GW-24IN03-20170712","537 MOD","07/28/17","00:44","N","NA","000","13C2-PFDA","13C2-
PFDA","94.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","94.0","94.0","","","","","","50","150","" "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","111","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","111","111","","","","","","50","150 " "" "" "" ""
"24-GW-24IN03-20170712","537 MOD","07/28/17","00:44","N","NA","000","13C2-PFUnA","13C2-
PFUnA","101","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","101","101","","","","","","50","150","", "" " "' ""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","86.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","86.2","86.2","","","","","","50","150 ","","","",""
"24-GW-24IN03-20170712","537_MOD","07/28/17","00:44","N","NA","000","13C2-PFDoA","13C2-
PFDoA","98.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","98.9","98.9","","","","","","50","150"," " "" "" ""
"24-GW-24IN03-20170712","537_MOD","07/31/17","16:36","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","3.50","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","3.50","3.50","","","","","","50","15 0","","*","",""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","375-73-
5","PFBS","9.66","","TRG","Yes","Y","","Y","1.90","5.30","8.47","NG_L","NG_L","","","","","","","","","","","","",""

"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","44.7","","TRḠ","Yes","Y","","Y","2.31","5.30","8.47","NG_L","NG_L","","",","","","",","","","","","","" "" "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","6.96","","TRG","Yes","Y","J","Y","0.626","5.30","8.47","NG_L","NG_L","",","","",","","","",","","","", "" "" "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","17.6","","TRG","Yes","Y","","Y","1.00","5.30","8.47","NG_L","NG_L","","","","","","","","","","","","","", "" "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","42.7","","TRG","Yes","Y","","Y","0.689","5.30","8.47","NG_L","NG_L","","","","","","","","","","","","","", "" "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.854","5.30","8.47","NG_L","NG_L","","","","","","","","","","","","","","","","",""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.858","5.30","8.47","NG_L","NG_L","","","","","","","","","","","","","","", "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","1.58","5.30","8.47","NG_L","NG_L","","","","","","","","","","","","","",""," " "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","1.75","5.30","8.47","NG_L","NG_L","","","","","","","","","","","","" "" "" "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","1.11","5.30","8.47","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","1.45","5.30","8.47","NG_L","NG_L","","","","","","","",","","","","", "" "" "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","307-55-1","PERFLUORODODECANOIC
ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.838","5.30","8.47","NG_L","NG_L","","","","","","","","","","","","",""," "," "", ""
"DUP02-20170712","537_MOD","07/31/17","16:48","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.523","5.30","8.47","NG_L","NG_L","","","","","","","","","","","",""," ","",","",""
"DUP02-20170712","537 MOD","07/31/17","16:48","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.799","5.30","8.47","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" """
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","13C3-PFBS","13C3-
PFBS","112","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","112","112","","","","","","50","150","","" """""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","13C2-PFHxA","13C2-
PFHxA","110","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","110","110","","","","","","50","150","", "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","13C4-PFHpA","13C4-
PFHpA","103","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","103","103","","","","","","50","150","", "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","18O2-PFHxS","18O2-
PFHxS","116","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","116","116","","","","","","50","150","", " " " " ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","13C2-PFOA","13C2-
PFOA","100","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","100","100","","","","","","50","150",""," ","","
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","13C8-PFOS","13C8-
PFOS","109","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","109","109","","","","","","50","150","","" ""","
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","13C5-PFNA","13C5-
PFNA","99.1","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","99.1","99.1","","","","","","50","150","" "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","13C2-PFDA","13C2-
PFDA","81.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","81.4","81.4","","","","","","50","150","" "" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","92.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","92.4","92.4","","","","","","50","15 0","","","",""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","13C2-PFUnA","13C2-

PFUnA","86.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","86.4","86.4","","","","","","50","150"," " "'" "" ""
"DUP02-20170712","537_MOD","07/28/17","00:54","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","85.0","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","85.0","85.0","","","","","","50","150 ","","","","
"DUP02-20170712","537 MOD","07/28/17","00:54","N","NA","000","13C2-PFDoA","13C2-
PFDoA","104","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","104","104","","","","","","50","150","", "'" "'" "'"
"DUP02-20170712","537_MOD","07/31/17","16:48","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","19.3","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","19.3","19.3","","","","","","50","15 0","","*","",""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","375-73-
5","PFBS","200","","TRG","Yes","Y","","Y","1.89","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","","", " " "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","307-24-
4","PERFLUOROHEXANOIC ACID
(PFHXA)","439","","TRG","Yes","Y","","Y","2.30","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","","", "t" " "t " " " "
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","375-859","PERFLUOROHEPTANOIC ACID
(PFHPA)","64.0","","TRG","Yes","Y","","Y","0.623","5.25","8.44","NG_L","NG_L","","","","","","","","","","","",""," ","","","" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","355-464","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","235","","TRG","Yes","Y","","Y","0.999","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","","" "" "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","335-67-
1","PERFLUOROOCTANOIC ACID
(PFOA)","77.6","","TRG","Yes","Y","","Y","0.687","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","","", "" "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","1763-231","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","1.88","","TRG","Yes","Y","J","Y","0.851","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","","","","","" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","375-951","PERFLUORONONANOIC ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.854","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","","","", " 717 " "
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","335-76-
2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","1.57","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","","",""," ","",""
"24-GW-24EX13A-20170712","537 MOD","07/28/17","01:05","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","1.74","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","" "" "" "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","2058-94-
8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","1.11","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","1.45","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","307-551","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.835","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","",""," " "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/31/17","16:58","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.521","5.25","8.44","NG_L","NG L","","","","","","","","","","","",""," " "" "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/31/17","16:58","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.796","5.25","8.44","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","13C3-PFBS","13C3-
PFBS","122","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","122","122","","","","",","50","150","","" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","13C2-PFHxA","13C2-
PFHxA","109","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","109","109","","","","","","50","150","", "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","13C4-PFHpA","13C4-
PFHpA","109","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","109","109","","","","","","50","150","", "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","18O2-PFHxS","18O2-
PFHxS","113","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","113","113","","","","","","50","150","", "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","13C2-PFOA","13C2-
PFOA","102","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","102","102","","","","","","50","150",""," " "" ""
"24-GW-24EX13A-20170712","537 MOD","07/28/17","01:05","N","NA","000","13C8-PFOS","13C8-
PFOS","114","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","114","114","","","","","","50","150","","" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","13C5-PFNA","13C5-
PFNA","99.9","","IS","Yes","Y","","Y","","",","PCT_REC","","","",","100","99.9","99.9","","","","",","50","150","" "" "" ""
"24-GW-24EX13A-20170712","537 MOD","07/28/17","01:05","N","NA","000","13C2-PFDA","13C2-
PFDA","88.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","88.4","88.4","","","","","","50","150","" "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","112","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","112","112","","","","","","50","150 " "" "" "" " ""
"24-GW-24EX13A-20170712","537 MOD","07/28/17","01:05","N","NA","000","13C2-PFUnA","13C2-
PFUnA","90.1","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","90.1","90.1","","","","","","50","150"," " "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","108","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","108","108","","","","","","50","150", "" "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/28/17","01:05","N","NA","000","13C2-PFDoA","13C2-
PFDoA","100","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","100","100","","","","","","50","150","", "" "" ""
"24-GW-24EX13A-20170712","537_MOD","07/31/17","16:58","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","58.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","58.4","58.4","","","","","","50","150" "" "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","375-73-
5","PFBS","37.4","","TRG","Yes","Y","","Y","1.88","5.25","8.38","NG_L","NG_L","","","","","","","","","","","","","" "" "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","307-24-
4","PERFLUOROHEXANOIC ACID
(PFHXA)","140","","TRG","Yes","Y","","Y","2.28","5.25","8.38","NG_L","NG_L","","","","","","","","","","","","","", "'" "'" "'t "'"
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","375-859","PERFLUOROHEPTANOIC ACID
(PFHPA)","20.4","","TRG","Yes","Y","","Y","0.619","5.25","8.38","NG_L","NG_L","","","","","","","","","","","",""," ","" "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","355-464","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","70.8","","TRG","Yes","Y","","Y","0.992","5.25","8.38","NG_L","NG_L","","","","","","","","","","","",""," " "" "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","335-67-
1","PERFLUOROOCTANOIC ACID
(PFOA)","141","","TRG","Yes","Y","","Y","0.682","5.25","8.38","NG_L","NG_L","","","","","","","","","","","","",""," " "" "" ""
"24-GW-24MW15D-20170712","537 MOD","07/28/17","01:16","N","NA","000","1763-231","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.846","5.25","8.38","NG_L","NG_L","","","","","","","","","","","","","","","","","" "24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","375-95-
1","PERFLUORONONANOIC ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.849","5.25","8.38","NG_L","NG_L","","","","","","","","","","","","","","", "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","335-76-
2","PERFLUORODECANOIC ACID-
(PFDA)","","","TRG","Yes","N","U","Y","1.56","5.25","8.38","NG_L","NG_L","","","","","","","","","","","","","",""," " "" ""
"24-GW-24MW15D-20170712","537 MOD","07/28/17","01:16","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","1.73","5.25","8.38","NG L","NG L","","","","","","","","","","","","" "" "" "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","2058-94-
8","PERFLUOROUNDECANOIC AC̄ID
(PFUNA)","","","TRG","Yes","N","U","Y","1.10","5.25","8.38","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","1.44","5.25","8.38","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","307-55-
1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.830","5.25","8.38","NG_L","NG_L","","","","","","","","","","","","",""," " "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/31/17","17:09","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.518","5.25","8.38","NG_L","NG_L","","","","","","","","","","","",""," " "" "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/31/17","17:09","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.791","5.25","8.38","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" """
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","13C3-PFBS","13C3-
PFBS","118","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","118","118","","","","","","50","150","","" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","13C2-PFHxA","13C2-
PFHxA","107","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","107","107","","","","","","50","150","", "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","13C4-PFHpA","13C4-
PFHpA","105","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","105","105","","","","","","50","150","",
"" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","18O2-PFHxS","18O2-
PFHxS","97.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","97.8","97.8","","","","","","50","150","
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","13C2-PFOA","13C2-
PFOA","105","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","105","105","","","","","","50","150",""," " "" ""
"24-GW-24MW15D-20170712","537 MOD","07/28/17","01:16","N","NA","000","13C8-PFOS","13C8-
PFOS","107","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","107","107","","","","","","50","150","","" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","13C5-PFNA","13C5-
PFNA","114","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","114","114","","","","","","50","150",""," " "" ""
"24-GW-24MW15D-20170712","537 MOD","07/28/17","01:16","N","NA","000","13C2-PFDA","13C2-
PFDA","86.7","","IS","Yes","Y","","Y","","",","PCT_REC","","","",","100","86.7","86.7","","",","","","50","150","" "" "" ""
"24-Gُ-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","105","","IS","Yes","Y","","Y","","",","PCT_REC","","","",","100","105","105","","","","","","50","150 ","" "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","13C2-PFUnA","13C2-
PFUnA","92.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","92.9","92.9","","","","",","50","150"," " "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","102","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","102","102","","","","","","50","150", "" "" "" ""
"24-GW-24MW15D-20170712","537_MOD","07/28/17","01:16","N","NA","000","13C2-PFDoA","13C2-
PFDoA","121","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","121","121","","","","","","50","150","", "t" "t" " \(" t\)
"24-GW-24MW15D-20170712","537_MOD","07/31/17","17:09","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","59.6","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","59.6","59.6","","","","","","50","150" "t" "t" "t" "'r
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","375-73-
5","PFBS","149","","TRG","Yes","Y","","Y","1.88","5.25","8.40","NG_L","NG_L","","","","","","","","","","","","","", "" "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","307-24-
4","PERFLŪOROHEXANOIC ACID
(PFHXA)","404","","TRG","Yes","Y","","Y","2.29","5.25","8.40","NG_L","NG_L","","","","","","","","","","","","","", "t" "t" ""t " ll
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","375-85-
9","PERFLÜOROHEPTANOIC ACID
(PFHPA)","0.887","","TRG","Yes","Y","J","Y","0.621","5.25","8.40","NG_L","NG_L","","","","","","","","","","","","" "" "" "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.995","5.25","8.40","NG_L","NG_L","","","","","","","","","","","","",""," " "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","335-67-
1","PERFLŪOROOCTANOIC ACID
(PFOA)","","","TRG","Yes","N","U","Y","0.684","5.25","8.40","NG_L","NG_L","","","","","","","",","","","","","","", "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.848","5.25","8.40","NG_L","NG_L","","","","","","","","","","","","","","","","",""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","375-95-
1","PERFLŪORONONANOIC ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.851","5.25","8.40","NG_L","NG_L","","","","","","","","","",","","","","", ""' "'t ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","335-762","PERFLŪORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","1.57","5.25","8.40","NG_L","NG_L","","","","","","","","","","","","","",""," " "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","1.73","5.25","8.40","NG_L","NG_L","","","","","","","","","","","","" "" "" "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","2058-94-
8","PERFLŪOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","1.10","5.25","8.40","NG_L","NG_L","","","","","","","","","","","","","","" "'" "'l " \(" t\)
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","1.44","5.25","8.40","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","307-55-
1","PERFLŪORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.832","5.25","8.40","NG L","NG L","","","","","","","","","","","","",""," " "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/31/17","17:20","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.519","5.25","8.40","NG_L","NG_L","","","","","","","","","","","",""," " "" "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/31/17","17:20","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.793","5.25","8.40","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","13C3-PFBS","13C3-
PFBS","116","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","116","116","","","","","","50","150","","" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","13C2-PFHxA","13C2-
PFHxA","109","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","109","109","","","","","","50","150","", "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","13C4-PFHpA","13C4-
PFHpA","113","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","113","113","","","","","","50","150","", "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","18O2-PFHxS","18O2-
PFHxS","112","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","112","112","","","","",","50","150","", "" "" ""
"16-GW-16 MW28-20170712","537 MOD","07/28/17","01:58","N","NA","000","13C2-PFOA","13C2-
PFOA","101","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","101","101","","","","","","50","150",""," " "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","13C8-PFOS","13C8-
PFOS","109","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","109","109","","","","","","50","150","","" "",""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","13C5-PFNA","13C5-
PFNA","97.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","97.4","97.4","","","","",","50","150","" "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","13C2-PFDA","13C2-
PFDA","88.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","88.2","88.2","","","","","","50","150","" "" "" ""
"16-GW-16 MW28-20170712","537 MOD","07/28/17","01:58","N","NA","000","d3-MeFOSAA","d3MeFOSAA","98.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","98.9","98.9","","","","","","50","15 0","","","" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","13C2-PFUnA","13C2-
PFUnA","90.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","90.1","90.1","","","","","","50","150","

"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","101","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","101","101","","","","","","50","150", "" "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/28/17","01:58","N","NA","000","13C2-PFDoA","13C2-
PFDoA","100","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","100","100","","","","","","50","150","", "" "" ""
"16-GW-16_MW28-20170712","537_MOD","07/31/17","17:20","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","87.2","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","87.2","87.2","","","","","","50","150" "","","",""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","375-73-
5","PFBS","163","","TRG","Yes","Y","","Y","1.88","5.25","8.39","NG_L","NG_L","","","","","","","","","","","","","", "" "" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","307-24-
4","PERFLUOROHEXANOIC ACID
(PFHXA)","50.2","","TRG","Yes","Y","","Y","2.29","5.25","8.39","NG_L","NG_L","","","","","","","","","","","","","" ""","","","
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","375-859","PERFLUOROHEPTANOIC ACID
(PFHPA)","5.33","","TRG","Yes","Y","J","Y","0.620","5.25","8.39","NG_L","NG_L","","","","","","","","","",","","", "" "" "" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","355-46-
4","PERFLŪOROHEXANESULFON̄IC ACID
(PFHXS)","21.6","","TRG","Yes","Y","","Y","0.994","5.25","8.39","NG_L","NG_L","","","","","","","","","","","",""," ","","","",""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","335-67-
1","PERFLŪOROOCTANOIC ACID
(PFOA)","","","TRG","Yes","N","U","Y","0.683","5.25","8.39","NG_L","NG_L","","","","","","","","","","","","","","", "" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","2.21","","TRG","Yes","Y","J","Y","0.847","5.25","8.39","NG_L","NG_L","","","","","","","","","","","","","","","","" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","375-95-
1","PERFLŪORONONANOIC ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.850","5.25","8.39","NG_L","NG_L","","","","","","","","","","","","","","", "" "",""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","335-762","PERFLŪORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","1.56","5.25","8.39","NG_L","NG_L","","","","","","","","","","","","","",""," "," ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","1.73","5.25","8.39","NG_L","NG_L","","","","","","","","","","","","" ""","",","","
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","2058-94-
8","PERFLŪOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","1.10","5.25","8.39","NG_L","NG_L","","","","","","","","","","","","","","" ""","","
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","1.44","5.25","8.39","NG_L","NG_L","","","","","","","",","","","","", "" "" "" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","307-55-

\section*{1","PERFLUOORODODECANOIC ACID}
(PFDOA)","","","TRG","Yes","N","U","Y","0.831","5.25","8.39","NG_L","NG_L","","","","","","","","","","","","",""," " "'r " "' " "'
"16-GW-16 MW19-20170712","537 MOD","07/31/17","17:30","N","NA","000","72629-94-
8","PFTrDĀ","","","TRG","Yes","N","U","Y","0.518","5.25","8.39","NG L","NG L","","","","","","","","","","","",""," " "" "" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/31/17","17:30","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.792","5.25","8.39","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"16-GW-16 MW19-20170712","537 MOD","07/28/17","02:09","N","NA","000","13C3-PFBS","13C3-
PFBS","120","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","120","120","","","","","","50","150","","" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","13C2-PFHxA","13C2-
PFHxA","111","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","111","111","","","","","","50","150","", "" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","13C4-PFHpA","13C4-
PFHpA","114","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","114","114","","","","","","50","150","", "" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","18O2-PFHxS","18O2-
PFHxS","112","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","112","112","","","","","","50","150","", "" "" ""
"16-GW-16 MW19-20170712","537 MOD","07/28/17","02:09","N","NA","000","13C2-PFOA","13C2-
PFOA","107","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","107","107","","","","","","50","150","","
" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","13C8-PFOS","13C8-
PFOS","109","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","109","109","","","","",","50","150","","" "" ""
"16-GW-16 MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","13C5-PFNA","13C5-
PFNA","106","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","106","106","","","","","","50","150","","
" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","13C2-PFDA","13C2-
PFDA","100","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","100","100","","","","","","50","150",""," " "" ""
"16-GW-16 MW19-20170712","537 MOD","07/28/17","02:09","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","108","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","108","108","","","","","","50","150 " "" "" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","13C2-PFUnA","13C2-
PFUnA","87.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","87.3","87.3","","","","","","50","150"," " "" "" ""
"16-GW-16 MW19-20170712","537 MOD","07/28/17","02:09","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","114","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","114","114","","","","","","50","150", "" "" "" ""
"16-GW-16_MW19-20170712","537_MOD","07/28/17","02:09","N","NA","000","13C2-PFDoA","13C2-
PFDoA","117","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","117","117","","","","","","50","150","", "" "" ""
"16-GW-16 MW19-20170712","537 MOD","07/31/17","17:30","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","70.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.8","70.8","","","","","","50","150"
"" "" "" ""
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","1.92","5.39","8.59","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"EB04-20170713","537 MOD","07/28/17","02:20","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","","","TRG","Yes","N","U","Y","2.34","5.39","8.59","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","","","TRG","Yes","N","U","Y","0.634","5.39","8.59","NG_L","NG_L","","","","","","","","","","","","",""," " "'r " " " "'"
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","","","TRG","Yes","N","U","Y","1.02","5.39","8.59","NG_L","NG_L","","","","","","","",","","","","","","", "" "'" ""
"EB04-20170713","537 MOD","07/28/17","02:20","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","","","TRG","Yes","N","U","Y","0.699","5.39","8.59","NG_L","NG_L","","","","","","","","","","","","","","", "" "" ""
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.866","5.39","8.59","NG_L","NG L","","","","","","","","","","","","","","","","","" "EB04-20170713","537 MOD","07/28/17","02:20","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.869","5.39","8.59","NG_L","NG_L","","","","","","","","","","","","","","", " "t " " " "
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","1.60","5.39","8.59","NG_L","NG_L","","","","","","","","","","","","","",""," " "" ""
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","1.77","5.39","8.59","NG_L","NG_L","","","","","","","","","","","","" "" "" "" "" ""
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","1.13","5.39","8.59","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"EB04-20170713","537 MOD","07/28/17","02:20","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","1.47","5.39","8.59","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","","","TRG","Yes","N","U","Y","0.850","5.39","8.59","NG_L","NG_L","","","","","","","","","","","","",""," " "" "" ""
"EB04-20170713","537 MOD","07/31/17","17:41","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.530","5.39","8.59","NG_L","NG_L","","","","","","","","","","","",""," " "" "" "" ""
"EB04-20170713","537_MOD","07/31/17","17:41","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.810","5.39","8.59","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","13C3-PFBS","13C3-
PFBS","114","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","114","114","","","",","","50","150","","" "'1 " 11
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","13C2-PFHxA","13C2-
PFHxA","107","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","107","107","","","","","","50","150","", "" "'r ""
"EB04-20170713","537 MOD","07/28/17","02:20","N","NA","000","13C4-PFHpA","13C4-
PFHpA","102","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","102","102","","","","","","50","150","", "" "" ""
"EB04-20170713","537 MOD","07/28/17","02:20","N","NA","000","18O2-PFHxS","18O2-
PFHxS","106","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","106","106","","","","","","50","150","", "" "" ""
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","13C2-PFOA","13C2-
PFOA","96.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","96.3","96.3","","","","","","50","150","" "" "" ""
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","13C8-PFOS","13C8-
PFOS","108","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","108","108","","","","","","50","150","","" ""","
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","13C5-PFNA","13C5-

PFNA","97.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","97.4","97.4","","","","","","50","150","" "t" \(1!=1 "\)
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","13C2-PFDA","13C2-
PFDA","90.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","90.8","90.8","","","","","","50","150","" "" "" ""
"EB04-20170713","537 MOD","07/28/17","02:20","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","94.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","94.0","94.0","","","","","","50","15 0","","","",""
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","13C2-PFUnA","13C2-
PFUnA","87.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","87.8","87.8","","","","","","50","150"," " "" "" ""
"EB04-20170713","537 MOD","07/28/17","02:20","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","90.1","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","90.1","90.1","","","","","","50","150 " "" "" "" ""
" \(\quad\),
"EB04-20170713","537_MOD","07/28/17","02:20","N","NA","000","13C2-PFDoA","13C2-
PFDoA","62.2","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","62.2","62.2","","","","","","50","150"," " "" "" ""
"EB04-20170713","537_MOD","07/31/17","17:41","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","29.2","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","29.2","29.2","","","","","","50","15 0","","*","",""
"16-GW-16_MW04-20170713","537_MOD","08/03/17","17:49","N","NA","DL1","375-73-
5","PFBS","3280","","TRG","Yes","Y","D","Y","9.29","26.0","41.5","NG_L","NG_L","","","","","","","","","","","","", "" "" "" """ ""
"16-GW-16_MW04-20170713","537_MOD","08/03/17","17:49","N","NA","DL1","307-244","PERFLUOROHEXANOIC ACID
(PFHXA)","2550","","TRG","Yes","Y","D","Y","11.3","26.0","41.5","NG_L","NG_L","","","","","","","","","","",","", "" "" "" "" " "
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","375-85-
9","PERFLUOROHEPTANOIC ACID
(PFHPA)","","","TRG","Yes","N","U","Y","0.613","5.21","8.30","NG_L","NG_L","","","","","","","","","","","","",""," " "" "" " ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","355-46-

\section*{4","PERFLUOROHEXANESULFONIC ACID}
(PFHXS)","","","TRG","Yes","N","U","Y","0.983","5.21","8.30","NG_L","NG_L","","","","","","","","","","","","",""," ","","","
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","335-67-

\section*{1","PERFLUOROOCTANOIC ACID}
(PFOA)","","","TRG","Yes","N","U","Y","0.676","5.21","8.30","NG_L","NG_L","","","","","","","",","","","","","","", "","","
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.838","5.21","8.30","NG_L","NG L","","","","","","","","","","","","","","","","","" "16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","375-95-
1","PERFLUORONONANOIC ACID
(PFNA)","","","TRG","Yes","N","U","Y","0.841","5.21","8.30","NG_L","NG_L","","","","","","","","","","","","","","", "" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","335-76-
2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","1.55","5.21","8.30","NG_L","NG_L","","","","","","","","","","","","","",""," ","",""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","2355-31-
9","MeFOSAAA","","","TRG","Yes","N","U","Y","1.71","5.21","8.30","NG_L","NG_L","","","","","","","","","","","","" ""","",","","
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","2058-94-

8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","1.09","5.21","8.30","NG_L","NG_L","","","","","","","","","","","","","","" "" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","1.42","5.21","8.30","NG_L","NG_L","","","","","","","","","","","","",
"" "" "" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","307-55-
1","PERFLŪORODODECANOIC Ā̄ID
(PFDOA)","","","TRG","Yes","N","U","Y","0.822","5.21","8.30","NG_L","NG_L","","","","","","","","","","","","",""," " "" "" ""
"16-GW-16 MW04-20170713","537 MOD","07/31/17","17:52","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.513","5.21","8.30","NG_L","NG_L","","","","","","","","","","","",""," " "" "" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/31/17","17:52","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.784","5.21","8.30","NG_L","NG_L","","","","","","","","","","","","", "" "" "" "" ""
"16-GW-16 MW04-20170713","537 MOD","08/03/17","17:49","N","NA","DL1","13C3-PFBS","13C3-
PFBS","79.3","","IS","Yes","Y","D","Y","","","","PCT_REC","","","","","100","79.3","79.3","","","","","","50","150"," " "" "" ""
"16-GW-16_MW04-20170713","537_MOD","08/03/17","17:49","N","NA","DL1","13C2-PFHxA","13C2-
PFHxA","88.7","","IS","Yes","Y","D","Y","","","","PCT_REC","","","","","100","88.7","88.7","","","","","","50","150" "" "" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","13C4-PFHpA","13C4-
PFHpA","162","","IS","Yes","Y","H","Y","","","","PCT_REC","","",","","100","162","162","","","","","","50","150"," " "*" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","18O2-PFHxS","18O2-
PFHxS","110","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","110","110","","","","","","50","150","", "" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","13C2-PFOA","13C2-
PFOA","101","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","101","101","","","","","","50","150","","
","","
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","13C8-PFOS","13C8-
PFOS","111","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","111","111","","","","","","50","150","","" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","13C5-PFNA","13C5-
PFNA","108","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","108","108","","","","","","50","150","","
" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","13C2-PFDA","13C2-
PFDA","95.0","","IS","Yes","Y","","Ȳ","","","","PCT_REC","","","","","100","95.0","95.0","","","","","","50","150",""
"" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","135","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","135","135","","","","","","50","150
","","","",""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","13C2-PFUnA","13C2-
PFUnA","95.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","95.2","95.2","","","","",","50","150","
" "" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","130","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","130","130","","","","","","50","150", "" "" "" ""
"16-GW-16_MW04-20170713","537_MOD","07/28/17","02:31","N","NA","000","13C2-PFDoA","13C2-
PFDoA","58.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","58.7","58.7","","","","","","50","150","
" "" "" " "
"16-GW-16_MW04-20170713","537_MOD","07/31/17","17:52","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","33.6","","IS","Yes","Y","H","Y","","","","PCT_REC","","","","","100","33.6","33.6","","","","","","50","15

0", "'", "*" "'" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.895","2.50","4.00","NG_L","NG_L","","","","","","","","","","","","",""," " "" "" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","","","TRG","Yes","N","U","Y","1.09","2.50","4.00","NG_L","NG_L","","","","","","","","","","","","","",""

"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","",",",TRG","Yes","N","U","Y","0.296","2.50","4.00","NG_L","NG_L","","",","","","",","","","","","",""," " "" "" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","",",",TRG","Yes","N","U","Y","0.474","2.50","4.00","NG_L","NG_L","","",","","","",","","","",","","","

"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","","","TRG","Yes","N","U","Y","0.326","2.50","4.00","NG_L","NG_L","","",","","",","","","",","","","","", "'l " 17 " \(" 1\)
"B7G0067-BLK1","537 MOD","07/27/17","21:08","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.404","2.50","4.00","NG L","NG L","","",","","","","","",","","","","","","","","" "B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.405","2.50","4.00","NG_L","NG_L","",","","","",","","","",","","",","", "'t " 17 " "'
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.745","2.50","4.00","NG_L","NG_L","","",","","",","","","",","","","","",

"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","2355-31-
9","MeFOSAA","",","TRG","Yes","N","U","Y","0.825","2.50","4.00","NG_L","NG_L","",","","",","","","",","","",

"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC
ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.525","2.50","4.00","NG_L","NG_L","",","","","",","","","",","","",""," " "" "" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.685","2.50","4.00","NG_L","NG_L","","",","","","",","","","","," " "" "" "" "" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","",",",TRG","Yes","N","U","Y","0.396","2.50","4.00","NG_L","NG_L","","",","","","",","","",","","",""," ","","",""
"B7G0067-BLK1","537_MOD","07/31/17","12:52","N","NA","000","72629-94-
8","PFTrDA","",","TRG","Yes","N","U","Y","0.247","2.50","4.00","NG_L","NG_L",","","","",","","",","","","",""," ","","","",""
"B7G0067-BLK1","537_MOD","07/31/17","12:52","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.378","2.50","4.00","NG_L","NG_L","",","","","",","","","","","","", "" "" "" "" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","13C3-PFBS","13C3-
PFBS","116","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","116","116",","","","",","50","150","","" "'" "'"
"B7G0067-BLK1","537 MOD","07/27/17","21:08","N","NA","000","13C2-PFHxA","13C2-
PFHxA","107","","IS","Yes","Y","","Y","","","","PCT_REC","",","","","100","107","107","","","","","","50","150","", "'" "'" " \("\)
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","13C4-PFHpA","13C4-
PFHpA","109","","IS","Yes","Y","","Y","","",","PCT_REC","","",","","100","109","109","","","",","","50","150","", "","" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","18O2-PFHxS","18O2-
PFHxS","105","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","105","105","","","","",","50","150","", "" "" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","13C2-PFOA","13C2-
PFOA","105","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","105","105","","","","","","50","150",""," " "" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","13C8-PFOS","13C8-
PFOS","113","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","113","113","","","","","","50","150","","" ,"",""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","13C5-PFNA","13C5-
PFNA","105","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","105","105","","","","","","50","150",""," " "" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","13C2-PFDA","13C2-
PFDA","95.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","95.9","95.9","","","",","","50","150","" "" "" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","95.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","95.2","95.2","","","","","","50","15 0","","","",""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","13C2-PFUnA","13C2-
PFUnA","95.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","95.3","95.3","","","","","","50","150"," " "" "" " ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","85.0","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","85.0","85.0","","","","","","50","150 " "" "" "" ""
"B7G0067-BLK1","537_MOD","07/27/17","21:08","N","NA","000","13C2-PFDoA","13C2-
PFDoA","113","","IS","Yes","Y","","Y","","",","PCT_REC","","","","","100","113","113","","","","","","50","150","", "" "" ""
"B7G0067-BLK1","537_MOD","07/31/17","12:52","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","57.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","57.9","57.9","","","","","","50","150" """," "" ""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","375-73-
5","PFBS","37.1","","TRG","Yes","Y","","Y","0.895","2.50","4.00","NG_L","NG_L","","","","40.0","37.1","92.8",""," ","","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","37.3","","TRG","Yes","Y","","Y","1.09","2.50","4.00","NG_L","NG_L","","","","40.0","37.3","93.3","","", "","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","38.3","","TRG","Yes","Y","","Y","0.296","2.50","4.00","NG_L","NG_L","","","","40.0","38.3","95.8",""," ","","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","39.0","","TRG","Yes","Y","","Y","0.474","2.50","4.00","NG_L","NG_L","","","","40.0","39.0","97.5",""," ","","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","41.6","","TR̄G","Yes","Y","","Y","0.326","2.50","4.00","NG_L","NG_L","","","","40.0","41.6","104","",""," ","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","37.6","","TRG","Yes","Y","","Y","0.404","2.50","4.00","NG_L","NG_L","","","","40.0","37.6","93.9","","","","","", "70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","38.7","","TRG","Yes","Y","","Y","0.405","2.50","4.00","NG_L","NG_L","","","","40.0","38.7","96.7","","", "","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","40.7","","TRG","Yes","Y","","Y","0.745","2.50","4.00","NG_L","NG_L","","","","40.0","40.7","102","",""," ","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","2355-31-
9","MeFOSAA","40.2","","TRG","Yes","Y","","Y","0.825","2.50","4.00","NG_L","NG_L","","","","40.0","40.2","100 ","","","","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","41.8","","TRG","Yes","Y","","Y","0.525","2.50","4.00","NG_L","NG_L","","","","40.0","41.8","105","","" ,"","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","2991-50-
6","EtFOSAA","38.9","","TRG","Yes","Y","","Y","0.685","2.50","4.00","NG_L","NG_L","","","","40.0","38.9","97.2" ,"","","","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","35.7","","TRG","Yes","Y","","Y","0.396","2.50","4.00","NG_L","NG_L","","","","40.0","35.7","89.4",""," ","","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/31/17","12:31","N","NA","000","72629-94-
8","PFTrDA","36.9","","TRG","Yes","Y","","Y","0.247","2.50","4.00","NG_L","NG_L","","","","40.0","36.9","92.1"," ","","","","","60","130","","","",""
"B7G0067-BS1","537_MOD","07/31/17","12:31","N","NA","000","376-06-
7","PFTeDA","41.3","","TRG","Yes","Y","","Y","0.378","2.50","4.00","NG_L","NG_L","","","","40.0","41.3","103"," ","","","","","70","130","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","13C3-PFBS","13C3-
PFBS","118","","IS","Yes","Y","","Y","","",","PCT_REC","","","",","100","118","118","","","",","","50","150","","" "",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","13C2-PFHxA","13C2-
PFHxA","119","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","119","119","","","","","","50","150","", "" "" ""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","13C4-PFHpA","13C4-
PFHpA","112","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","112","112","","","","","","50","150","", "" "" ""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","18O2-PFHxS","18O2-
PFHxS","116","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","116","116","","","","","","50","150","", "'t "'t " 11
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","13C2-PFOA","13C2-
PFOA","112","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","112","112","","","","","","50","150",""," ","","
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","13C8-PFOS","13C8-
PFOS","127","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","127","127","","","","","","50","150","","" "" ""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","13C5-PFNA","13C5-
PFNA","105","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","105","105","","","","","","50","150",""," ","","
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","13C2-PFDA","13C2-
PFDA","87.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","87.8","87.8","","","","","","50","150","" "" "" ""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","81.4","","IS","Yes","Y","","Y","","",","PCT_REC","","",","","100","81.4","81.4","","","","","","50","15 0","","","",""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","13C2-PFUnA","13C2-
PFUnA","83.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","83.5","83.5","","","","","","50","150"," " "" "" ""
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","82.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","82.5","82.5","","","","","","50","150 ","","","","
"B7G0067-BS1","537_MOD","07/27/17","21:29","N","NA","000","13C2-PFDoA","13C2-

PFDoA","99.6","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","99.6","99.6","","","","","","50","150"," " "" "" ""
"B7G0067-BS1","537_MOD","07/31/17","12:31","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","60.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","60.2","60.2","","","","","","50","150"

, , ,

AMEC Foster Wheeler, Inc.
7376 SW Durham Road
Portland, OR 97224
Attn: Ms. Marina Mitchell
SUBJECT: Revised MCAS El Toro, BRAC PFAs, Data Validation
Dear Ms. Mitchell,
Enclosed are the revised validation reports for the fraction listed below. Please replace the previously submitted reports with the enclosed revised reports

\section*{LDC Project \#39234:}

\section*{SDG \#}

1700852, 1700851, 1700871

\section*{Fraction}

Perfluorinated Alkyl Acids
- Revision: Change in IS section.

Please feel free to contact us if you have any questions.
Sincerely,


Pei Geng
Project Manager/Senior Chemist

AMEC Foster Wheeler, Inc.
7376 SW Durham Road
Portland, OR 97224
Attn: Ms. Marina Mitchell
SUBJECT: MCAS EI Toro, BRAC PFAs, Data Validation
Dear Ms. Mitchell,
Enclosed are the final validation reports for the fraction listed below. These SDGs were received on August 9, 2017. Attachment 1 is a summary of the samples that were reviewed for analysis.

\section*{LDC Project \#39234:}

\section*{SDG \#}

\section*{Fraction}

1700852, 1700851, 1700871

\section*{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, Field Sampling Plan and Quality Assurance Project Plan for Intial Assessment of Per-Fluorinated Compounds or Per- and Polyfluoroalkyl Substances, Sites at Various Base Realignment and Closure Installations, March 2017
- U.S. Department of Defense Quality Systems Manual for Environmental Laboratories, Version 5.1, 2017
- USEPA, National Functional Guidelines for Superfund Organic Methods Data Review, August 2014

Please feel free to contact us if you have any questions.
Sincerely,


Pei Geng
Project Manager/Senior Chemist

Client Select / Stage 2B/4 LDC \#39234 (AMEC Foster Wheeler - San Diego, CA / MCAS El Toro, BRAC PFAs)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline LDC & SDG\# & DATE REC'D & (2) DATE DUE & \multicolumn{2}{|l|}{PFAs
(537)} & \multicolumn{2}{|l|}{\multirow[b]{2}{*}{W S}} & \multicolumn{2}{|l|}{\multirow[b]{2}{*}{W}} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} & \multirow[b]{2}{*}{W} & \multirow[b]{2}{*}{S} \\
\hline \multicolumn{4}{|l|}{Matrix: Water/Soil} & W & S & & & W & & & & & & & & & & & & & & & & & & & & & & & & & & & \\
\hline A & 1700852 & 08/09/17 & 08/23/17 & 7 & 0 & & & & & & & & & & & & & & & & & & & & & & & & & & & & & & \\
\hline A & 1700852 & 08/09/17 & 08/23/17 & 1 & 0 & & & & & & & & & & & & & & & & & & & & & & & & & & & & & & \\
\hline B & 1700851 & 08/09/17 & 08/23/17 & 6 & 0 & & & & & & & & & & & & & & & & & & & & & & & & & & & & & & \\
\hline B & 1700851 & 08/09/17 & 08/23/17 & 2 & 0 & & & & & & & & & & & & & & & & & & & & & & & & & & & & & & \\
\hline C & 1700871 & 08/09/17 & 08/23/17 & 7 & 0 & & & & & & & & & & & & & & & & & & & & & & & & & & & & & & \\
\hline c & 1700871 & 08/09/17 & 08/23/17 & 2 & 0 & & & & & & & & & & & & & & & & & & & & & & & & & & & & & & \\
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\hline Total & J/PG & & & 25 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 25 \\
\hline
\end{tabular}

\title{
Laboratory Data Consultants, Inc. Data Validation Report
}

Project/Site Name:
LDC Report Date:
Parameters:
Validation Level:
Laboratory:

MCAS El Toro, BRAC PFAs
August 14, 2017
Perfluorinated Alkyl Acids
Stage 2B/4
Vista Analytical Laboratory

Sample Delivery Group (SDG): 1700852
\begin{tabular}{|l|l|l|l|}
\hline \multicolumn{1}{|c|}{ Sample Identification } & \multicolumn{1}{|c|}{\begin{tabular}{c} 
Laboratory Sample \\
Identification
\end{tabular}} & \multicolumn{1}{|c|}{ Matrix } & \begin{tabular}{c} 
Collection \\
Date
\end{tabular} \\
\hline DUP01-20170711 & \(1700852-02\) & Water & \(07 / 11 / 17\) \\
\hline 1-GW-01-MW204-20170711 & \(1700852-03\) & Water & \(07 / 11 / 17\) \\
\hline 1-GW-01-MW206-20170711 & \(1700852-04\) & Water & \(07 / 11 / 17\) \\
\hline 2-GW-02DGMW59-20170711 & \(1700852-05\) & Water & \(07 / 11 / 17\) \\
\hline 2-GW-02NEW16-20170711 & \(1700852-06\) & Water & \(07 / 11 / 17\) \\
\hline 5-GW-05-DGMW68A-20170711** & \(1700852-07^{* *}\) & Water & \(07 / 11 / 17\) \\
\hline 1-GW-01-PZ20-20170711 & \(1700852-08\) & Water & \(07 / 11 / 17\) \\
\hline 1-GW-01-MW209-20170711 & \(1700852-09\) & Water & \(07 / 11 / 17\) \\
\hline 1-GW-01-MW204-20170711MS & \(1700852-03 M S\) & Water & \(07 / 11 / 17\) \\
\hline 1-GW-01-MW204-20170711MSD & \(1700852-03 M S D\) & Water & \(07 / 11 / 17\) \\
\hline
\end{tabular}

\footnotetext{
**Indicates sample underwent Stage 4 validation
}

\section*{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 (Field Sampling Plan and Quality Assurance Project Plan) for Initial Assessment of Per-Fluorinated Compounds (PFCS) or Per- and Polyfluoroalkyl Substances (PFAS) Sites at Various Base Realignment and Closure (BRAC) Installations (March 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 Contract Laboratory Program National Functional Guidelines (CLPNFG) for Superfund Organic Methods Data Review (August 2014). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:
Perfluorinated Alkyl Acids by Environmental Protection Agency (EPA) Method 537
All sample results were subjected to Stage 2B data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Stage 4 data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:
J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to 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 (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.

NJ (Presumptive and Estimated): The analysis indicates the presence of a compound or analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

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.

\section*{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.

\section*{II. LC/MS Instrument Performance Check}

Instrument performance was not required by the method.

\section*{III. Initial Calibration and Initial Calibration Verification}

Initial calibration was performed as required by the method.
For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (\%RSD) were less than or equal to 20.0\%.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination \(\left(r^{2}\right)\) were greater than or equal to 0.990 .

For each calibration point, the percent differences (\%D) of its 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.

\section*{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.

\section*{V. Laboratory Blanks}

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

\section*{VI. Field Blanks}

Sample EB 2_20170711 was identified as an equipment blank. No contaminants were found.

Sample SB01_20170710 (from SDG 1700851) was identified as a source blank. No contaminants were found.

\section*{VII. Matrix Spike/Matrix Spike Duplicates}

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (\%R) were within QC limits with the following exceptions:
\begin{tabular}{||c|c|c|c|c|c||}
\hline \begin{tabular}{c} 
Spike ID \\
(Associated Samples)
\end{tabular} & Compound & \begin{tabular}{c} 
MS (\%R) \\
(Limits)
\end{tabular} & \begin{tabular}{c} 
MSD (\%R) \\
(Limits)
\end{tabular} & Flag & A or P \\
\hline \hline \begin{tabular}{l} 
1-GW-01-MW204-20170711MS/MSD \\
(1-GW-01-MW204-20170711)
\end{tabular} & PFHxS & \(65.8(70-130)\) & - & J (all detects) & A \\
\hline
\end{tabular}

Relative percent differences (RPD) were within QC limits with the following exceptions:
\(\left.\begin{array}{||c|c|c|c|c|}\hline \begin{array}{c}\text { Spike ID } \\
\text { (Associated Samples) }\end{array} & \text { Compound } & \begin{array}{c}\text { RPD } \\
\text { (Limits) }\end{array} & 35.7(\leq 30) & \text { Flag }\end{array}\right]\)\begin{tabular}{l} 
A or P \\
\hline \hline \begin{tabular}{l} 
1-GW-01-MW204-20170711MS/MSD \\
\((1-G W-01-M W 204-20170711)\)
\end{tabular} \\
\hline
\end{tabular}

\section*{VIII. Ongoing Precision Recovery Samples}

Ongoing precision recovery (OPR) samples were analyzed as required by the method. Percent recoveries (\%R) were within QC limits.

\section*{IX. Field Duplicates}

Samples DUP01-20170711 and 1-GW-01-PZ20-20170711 were identified as field duplicates. No results were detected in any of the samples.

\section*{X. Internal Standards}

All internal standard recoveries (\%R) were within QC limits with the following exceptions:
\begin{tabular}{||l|c|c|c|c|c||}
\hline Sample & \begin{tabular}{c} 
Internal \\
Standards
\end{tabular} & \%R (Limits) & \begin{tabular}{c} 
Affected \\
Compound
\end{tabular} & Flag & A or P \\
\hline DUP01-20170711 & 13C3-PFBS & \(152(50-150)\) & PFBS & UJ (all non-detects) & \(P\) \\
\hline 1-GW-01-MW204-20170711 & 13C3-PFBS & \(154(50-150)\) & PFBS & J (all detects) & \(P\) \\
\hline 1-GW-01-MW206-20170711 & 13C3- PFBS & \(162(50-150)\) & PFBS & UJ (all non-detects) & \(P\) \\
\hline 2-GW-02DGMW59-20170711 & 13C3- PFBS & \(163(50-150)\) & PFBS & J (all detects) & \(P\) \\
\hline 5-GW-05-DGMW68A-20170711** & 13C3- PFBS & \(152(50-150)\) & PFBS & J (all detects) & \(P\) \\
\hline
\end{tabular}
\begin{tabular}{||l|l|l|l|l|c||}
\hline \multicolumn{1}{|c|}{ Sample } & \begin{tabular}{c} 
Internal \\
Standards
\end{tabular} & \%R (Limits) & \multicolumn{1}{|c|}{\begin{tabular}{c} 
Affected \\
Compound
\end{tabular}} & \multicolumn{1}{c|}{ Flag } & A or P \\
\hline \hline 1-GW-01-PZ20-20170711 & \(13 C 3-\) PFBS & \(152(50-150)\) & PFBS & UJ (all non-detects) & P \\
\hline 1-GW-01-MW209-20170711 & \(13 C 3-\) PFBS & \(151(50-150)\) & PFBS & J (all detects) & P \\
\hline
\end{tabular}

\section*{XI. Compound Quantitation}

All compound quantitations met validation criteria for samples which underwent Stage 4 validation.

The laboratory limit of quantitation (LOQ) and limit of detection (LOD) are higher than the QAPP LOQ and LOD.

The laboratory detection limit (DL) for PFOS is higher than the QAPP DL.
Raw data were not reviewed for Stage 2B validation.

\section*{XII. 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.

\section*{XIII. System Performance}

The system performance was acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

\section*{XIV. Overall Assessment of Data}

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to MS/MSD \%R and RPD and internal standards \%R, data were qualified as estimated in seven samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated ( \(J\) ) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

MCAS El Toro, BRAC PFAs
Perfluorinated Alkyl Acids - Data Qualification Summary - SDG 1700852
\begin{tabular}{||l|c|c|c|c||}
\hline \multicolumn{1}{|c|}{ Sample } & & & & \\
\hline \hline Compound & Flag & A or P & \\
\hline \begin{tabular}{l} 
1-GW-01-MW204-20170711
\end{tabular} & PFHxS & J (all detects) & A & \begin{tabular}{l} 
Matrix spike/Matrix spike \\
duplicate (\%R)(RPD) \\
1-GW-01-MW204-20170711 \\
1-GW-01-MW206-20170711 \\
2-GW-02DGMW59-20170711 \\
-GW-05-DGMW68A-20170711** \\
1-GW-01-PZ20-20170711 \\
1-GW-01-MW209-20170711
\end{tabular} \\
\hline PFBS & & J (all detects) & P & Internal standards (\%R) \\
\hline
\end{tabular}

MCAS El Toro, BRAC PFAs
Perfluorinated Alkyl Acids - Laboratory Blank Data Qualification Summary - SDG 1700852

No Sample Data Qualified in this SDG
MCAS El Toro, BRAC PFAs
Perfluorinated Alkyl Acids - Field Blank Data Qualification Summary - SDG 1700852

No Sample Data Qualified in this SDG

LDC \#: 39234A96 VALIDATION COMPLETENESS WORKSHEET
SDG \#: 1700852
Stage 2B/4


METHOD: LCMS Perfluorinated Alkyl Acids (EPA Method 537)
The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

Note: \(\quad \mathrm{A}=\) Acceptable \(\mathrm{N}=\) Not provided/applicable SW = See worksheet
ND = No compounds detected
\(\mathrm{R}=\) Rinsate FB = Field blank
\(D=\) Duplicate
TB = Trip blank
SB=Source blank
\[
\mathrm{EB}=\text { Equipment blank }
\]

OTHER:

\#: 39234496
VALIDATION FINDINGS CHECKLIST

Method: LCMS (EPA Method 537)


Page:
Reviewer: 2nd Reviewer:



METHOD: LC/MS PFOS/PFOAs (EPA Method 537M)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) or duplicate sample analyzed for each matrix in this SDG?
\(\begin{array}{ll}Y / N ~ N / A & \text { Was a MS/MSD analyzed every } 20 \text { samples of each matrix? } \\ Y(N) N / A & \text { Were the MS/MSD percent recoveries }(\% R) \text { and the relative percent differences (RPD) within the QC limits? }\end{array}\)
\(Y \triangle(N / A)\) Were all duplicate sample relative percent differences (RPD) or differences within QC limits?
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \# & Date & MS/MSD/DUP ID & Compound & \[
\begin{gathered}
\text { MS } \\
\% \mathrm{R} \text { (Limits) } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\text { MSD } \\
\text { \%R (Limits) } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\text { RPD } \\
\text { (Limits) }
\end{gathered}
\] & Associated Samples & Qualifications \\
\hline & & \[
10 / 11
\] & PFHx S & \[
658(70-130
\] & & & \[
3(\text { ats } 3)
\] & \[
\sqrt{1} 1 \sqrt{4}
\] \\
\hline & & & \(k\) & , & & \[
357(\leq 30)
\] & & \[
\text { Ret } / P A
\] \\
\hline & & & & & & & & 有 \\
\hline & & & & & & & & \\
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\hline
\end{tabular}

VALIDATION FINDINGS WORKSHEET
Internal Standards

Page: \(\frac{\text { bf }}{8}\) Reviewer: 2nd Reviewer: Af

\section*{METHOD: LC/MS PFC}

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
\(Y \nsupseteq\) N/A Were all internal standard area counts within \(50-150 \%\) limits?
Y N N/A Were the retention times of the internal standards within \(+/-30\) seconds of the retention times of the associated calibration standard?


VALIDATION FINDINGS WORKSHEET Compound Quantitation and Reported CRQLs

Page: 1 of 1
Reviewer: PG 2nd Reviewer:
```

METHOD:

``` \(\qquad\)
\(\qquad\)
``` HPLC
```

Please see qualifications below for all questions answered " $N$ ". Not applicable questions are identified as "N/A". Leyel IVID Only
Y N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, etc.? $Y /$ N N/A Did the reported results for detected target compounds agree within $10.0 \%$ of the recalculated results?

| \# | Compound Name | Finding | Associated Samples | Qualifications |
| :---: | :---: | :---: | :---: | :---: |
|  | All | The laboratory limit of quantitation (LOQ) and limit of detection (LOD) are higher than the QAPP LOQ and LOD |  | Text |
|  |  |  |  |  |
|  | All | The laboratory detection limit (DL) for PFOS is higher than the QAPP DL |  | Text |
|  |  |  |  |  |
|  |  |  |  |  |
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|  |  |  |  |  |
|  |  |  |  |  |

[^3]Method: LC/MS/MS PFCs

| $\begin{aligned} & \hline \hline \text { Calibration } \\ & \text { Date } \end{aligned}$ | System | Compound | Standard | (Y) <br> Response | $\begin{gathered} \hline \hline(X) \\ \text { Concentration } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7/24/2017 | Q4 | PFBS | 0 | 0.4737025 | 0.25 |
|  |  |  | s1 | 0.88965125 | 0.50 |
|  |  |  | s2 | 2.13415875 | 1.00 |
|  |  |  | s3 | 4.1171275 | 2.00 |
|  |  |  | S4 | 10.30721875 | 5.00 |
|  |  |  | s5 | 17.7060325 | 10.00 |
|  |  |  | s6 | 93.3127675 | 50.00 |
|  |  |  | s7 | 184.225463 | 100.00 |


| Regression Output |  | Reported |
| :---: | :---: | :---: |
| Constant | 0.259550 | 0.075295 |
| Std Err of Y Est |  |  |
| R Squared | 0.999910 | 0.999223 |
| Degrees of Freedom |  |  |
|  |  |  |
| X Coefficient(s) | 1.843495 | 1.852230 |
| Std Err of Coef. |  |  |
|  |  |  |
| Correlation Coefficient | 0.999955 |  |
| Coefficient of Determination ( $\mathrm{r}^{\wedge} 2$ ) | 0.999910 | 0.999223 |

* W+

VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: 1 of 1 Reviewer: 2nd Reviewer: EW

METHOD: GC $\qquad$ $\checkmark$ HPLC MS
The percent difference (\%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

```
% Difference = 100* (ave. CF - CF)/ave. CF
``` \(\cdot C F=A / C\)

Where: ave. \(C F=\) initial calibration average \(C F\)
\(C F=\) continuing calibration CF
\(A=\) Area of compound
\(\mathrm{C}=\) Concentration of compound
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & & & & & Renoted & ter & , & \\
\hline \# & Standard ID & \[
\begin{aligned}
& \text { Calibration } \\
& \text { Dato }
\end{aligned}
\] & Compound & Average CF(Ical) ccl Conc. & CF/Conc. CCV & CF/Conc. CCV & \%D & \%D \\
\hline 1 & TOTS5M1-2 & TOST17 & PfBS & 0.500 & 0.515 & 0.54 & 3.0 & 2.8 \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline 2 & 11053541.19 & \[
7 / 25 / 17
\] & AFBS & 10.0 & 9.77 & 9.7 & 33 & 23 \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline 3 & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline 4 & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline
\end{tabular}

Comments: Refer to Continuing Calibration 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
Matrix Spike/Matrix Spike Duplicates Results Verification

METHOD: _ GC \(V\) HPLC MS
The percent recoveries (\%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:
\%Recovery \(=100\) * (SSC SC)/SA
Where
\[
\begin{aligned}
\text { SSC } & =\text { Spiked sample concentration } \\
\text { SA } & =\text { Spike added } \\
\text { MS } & =\text { Matrix spike }
\end{aligned}
\]
\(R P D=\left(\left(\{S S C M S-S S C M S D\}^{*} 2\right) /(S S C M S+S S C M S D)\right)^{*} 100\)
\[
\text { MS = Matrix spike } \quad \text { MSD }=\text { Matrix spike duplicate }
\]

MS/MSD samples: \(10 / 11\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Compound} & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\[
\begin{gathered}
\text { Spike } \\
\text { Aldged } / 2,
\end{gathered}
\]}} & \multirow[t]{2}{*}{\[
\begin{gathered}
\begin{array}{c}
\text { Sample } \\
\text { Conc. }
\end{array} \\
\text { U- } /<1
\end{gathered}
\]} & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{Spike Sample Concentration
\(\qquad\)}} & \multicolumn{2}{|c|}{Matrix spike} & \multicolumn{2}{|l|}{Matrix Spike Duplicate} & \multicolumn{2}{|c|}{MS/MSD} \\
\hline & & & & & & \multicolumn{2}{|l|}{Percent Recovery} & \multicolumn{2}{|l|}{Percent Recovery} & \multicolumn{2}{|c|}{RPD} \\
\hline & ms & MSD & & MS & MSD & Reported & Recalc. & Reported & Recalc. & Reported & Recalc. \\
\hline Gasoline (8015) & & & & & & & & & & & \\
\hline Diesel (8015) & & & & & & & & & & & \\
\hline Benzene (8021B) & & & & & & & & & & & \\
\hline Methane (RSK-175) & & & & & & & & & & & \\
\hline 2,4-D (8151) & & & & & & & & & & & \\
\hline Dinoseb (8151) & & & & & & & & & & & \\
\hline Naphthalene (8310) & & & & & . & & & & & & \\
\hline Anthracene (8310) & & & & & & & & & & & \\
\hline HMX (8330) & & & & & & & & & & & \\
\hline \multicolumn{12}{|l|}{2,4,6-Trinitrotoluene (8330)} \\
\hline 173s & \%, \({ }^{3}\) & \(862^{2}\) & 19.6 & 98.2 & 107 & 94.9 & 94.9 & 103 & 103 & 8.19 & 8.19 \\
\hline \multicolumn{12}{|l|}{} \\
\hline \multicolumn{12}{|l|}{} \\
\hline & & & & & & & & & & & \\
\hline & & & & & & & & & & & \\
\hline
\end{tabular}

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.

\section*{Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification}

METHOD: __GC \(\sqrt{ }\) HPLC \(/ \mu S\)
The percent recoveries (\%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the
compounds identified below using the following calculation:
\% Recovery \(=100^{*}\) (SSC-SC)/SA

Where: \(\quad\) SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery

SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: \(\beta\) Tf010T-BS1


Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within \(10.0 \%\) of the recalculated results.
\(\qquad\)

METHOD: __GC_HPLC/rls
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 \(10 \%\) of the reported results?

Concentration= \(\qquad\) (A)(Fv)(Df) (RF)(Vs or Ws)(\%S/100)
\(A=\) Area or height of the compound to be measured
Fl= Final Volume of extract
Bf= Dilution Factor
\(R F=\) Average response factor of the compound In the initial calibration
\(V s=\) Initial volume of the sample
Ns= Initial weight of the sample
\%S= Percent Solid

Example:
\[
\text { Sample ID. } 7
\]

Compound Name \(\qquad\) PAPS
\[
\text { Concentration }=\frac{(360.102)-\left(\frac{360.102 \times 1.5}{5077.395}-0.0752948\right)}{(1.85203)(0.10843)}
\]
\[
=4.04 n 5
\]

aments: \(\qquad\)

\title{
Laboratory Data Consultants, Inc. Data Validation Report
}

\section*{Project/Site Name:}

LDC Report Date:
Parameters:
Validation Level:
Laboratory:

MCAS EI Toro, BRAC PFAs
August 29, 2017
Perfluorinated Alkyl Acids
Stage 2B/4
Vista Analytical Laboratory

Sample Delivery Group (SDG): 1700851
\begin{tabular}{|l|l|l|l|}
\hline \multicolumn{1}{|c|}{ Sample Identification } & \begin{tabular}{c} 
Laboratory Sample \\
Identification
\end{tabular} & Matrix & \begin{tabular}{c} 
Collection \\
Date
\end{tabular} \\
\hline 18-GW-18MCAS03-5-20170710 & \(1700851-03\) & Water & \(07 / 10 / 17\) \\
\hline 18-GW-18MCAS03-2-20170710 & \(1700851-04\) & Water & \(07 / 10 / 17\) \\
\hline 18-GW-18MCAS02-5-20170710 & \(1700851-05\) & Water & \(07 / 10 / 17\) \\
\hline 18-GW-18MCAS07-3-20170710 & \(1700851-06\) & Water & \(07 / 10 / 17\) \\
\hline 24-GW-24MW08B-20170710 & \(1700851-07\) & Water & \(07 / 10 / 17\) \\
\hline DUP03-20170710** & \(1700851-08^{* *}\) & Water & \(07 / 10 / 17\) \\
\hline 24-GW-24EX11-20170710 & \(1700851-09\) & Water & \(07 / 10 / 17\) \\
\hline SGV-GW-SGV Transfer Station-20170710** & \(1700851-10^{* *}\) & Water & \(07 / 10 / 17\) \\
\hline SGV-GW-SGV Transfer Station-20170710MS & \(1700851-10 \mathrm{MS}\) & Water & \(07 / 10 / 17\) \\
\hline SGV-GW-SGV Transfer Station-20170710MSD & \(1700851-10 \mathrm{MSD}\) & Water & \(07 / 10 / 17\) \\
\hline
\end{tabular}

\section*{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 (Field Sampling Plan and Quality Assurance Project Plan) for Initial Assessment of Per-Fluorinated Compounds (PFCS) or Per- and Polyfluoroalkyl Substances (PFAS) Sites at Various Base Realignment and Closure (BRAC) Installations (March 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 Contract Laboratory Program National Functional Guidelines (CLPNFG) for Superfund Organic Methods Data Review (August 2014). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:
Perfluorinated Alkyl Acids by Environmental Protection Agency (EPA) Method 537
All sample results were subjected to Stage 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 (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.

NJ (Presumptive and Estimated): The analysis indicates the presence of a compound or analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

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.

\section*{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.

\section*{II. LC/MS Instrument Performance Check}

Instrument performance was not required by the method.

\section*{III. Initial Calibration and Initial Calibration Verification}

Initial calibration was performed as required by the method.
For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (\%RSD) were less than or equal to 20.0\%.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination \(\left(r^{2}\right)\) were greater than or equal to 0.990 .

For each calibration point, the percent differences (\%D) of its 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.

\section*{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.

\section*{V. Laboratory Blanks}

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

\section*{VI. Field Blanks}

Sample EB 01_20170710 was identified as an equipment blank. No contaminants were found.

Sample SB 01_20170710 was identified as a source blank. No contaminants were found.

\section*{VII. 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 within QC limits with the following exceptions:
\begin{tabular}{||l|l|c|c|c|c||}
\hline \multicolumn{1}{|c|}{\begin{tabular}{c} 
Spike ID \\
(Associated Samples)
\end{tabular}} & Compound & \begin{tabular}{c} 
MS (\%R) \\
(Limits)
\end{tabular} & \begin{tabular}{c} 
MSD (\%R) \\
(Limits)
\end{tabular} & \multicolumn{1}{c|}{ Flag } & A or P \\
\hline \hline \begin{tabular}{l} 
SGV-GW-SGV Transfer Station-20170710MS/MSD \\
(SGV-GW-SGV Transfer Station-20170710**)
\end{tabular} & PFHxS & \(52.4(70-130)\) & - & J (all detects) & A \\
\hline \begin{tabular}{l} 
SGV-GW-SGV Transfer Station-20170710MS/MSD \\
(SGV-GW-SGV Transfer Station-20170710**)
\end{tabular} & PFOS & \(139(70-130)\) & - & J (all detects) & A \\
\hline
\end{tabular}

Relative percent differences (RPD) were within QC limits with the following exceptions:
\begin{tabular}{|c|c|c|c|c|}
\hline Spike ID (Associated Samples) & Compound & \[
\begin{aligned}
& \text { RPD } \\
& \text { (Limits) }
\end{aligned}
\] & Flag & A or P \\
\hline SGV-GW-SGV Transfer Station-20170710MS/MSD (SGV-GW-SGV Transfer Station-20170710**) & PFHxA PFHxS & \[
\begin{aligned}
& 34.1(\leq 30) \\
& 58.8(\leq 30)
\end{aligned}
\] & \begin{tabular}{l}
J (all detects) \\
\(J\) (all detects)
\end{tabular} & A \\
\hline
\end{tabular}

\section*{VIII. Ongoing Precision Recovery Samples}

Ongoing precision recovery (OPR) samples were analyzed as required by the method. Percent recoveries (\%R) were within QC limits.

\section*{IX. Field Duplicates}

Samples DUP03-20170710** and SGV-GW-SGV Transfer Station-20170710** were identified as field duplicates. No results were detected in any of the samples with the following exceptions:
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Compound} & \multicolumn{2}{|r|}{Concentration (ng/L)} & \multirow[b]{2}{*}{\[
\begin{gathered}
\text { RPD } \\
\text { (Limits) }
\end{gathered}
\]} & \multirow[b]{2}{*}{Difference (Limits)} & \multirow[b]{2}{*}{Flag} & \multirow[b]{2}{*}{A or P} \\
\hline & DUP03-20170710** & SGV-GW-SGV Transfer Station-20170710** & & & & \\
\hline PFBS & 80.5 & 76.0 & \(6(\leq 30)\) & - & - & - \\
\hline PFHxA & 267 & 268 & \(0(\leq 30)\) & - & - & - \\
\hline PFHpA & 50.9 & 48.8 & \(4(\leq 30)\) & - & - & - \\
\hline PFHxS & 264 & 295 & \(11(\leq 30)\) & - & - & - \\
\hline PFOA & 232 & 234 & \(1(\leq 30)\) & - & - & - \\
\hline PFOS & 407 & 395 & \(3(\leq 30)\) & - & - & - \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Compound} & \multicolumn{2}{|r|}{Concentration (ng/L)} & \multirow[b]{2}{*}{RPD
(Limits)} & \multirow[b]{2}{*}{Difference (Limits)} & \multirow[b]{2}{*}{Flag} & \multirow[b]{2}{*}{A or P} \\
\hline & DUP03-20170710** & SGV-GW-SGV Transfer Station-20170710** & & & & \\
\hline PFNA & 8.17 & 8.39 & - & 0.22 ( 58.30 ) & - & - \\
\hline
\end{tabular}

\section*{X. Internal Standards}

All internal standard recoveries (\%R) were within QC limits with the following exceptions:
\begin{tabular}{|c|c|c|c|c|c|}
\hline Sample & \begin{tabular}{l}
Internal \\
Standards
\end{tabular} & \%R (Limits) & Affected Compound & Flag & A or P \\
\hline 18-GW-18MCAS03-2-20170710 & 13C2-PFTeDA & 39.3 (50-150) & PFTeDA & NA & - \\
\hline 18-GW-18MCAS02-5-20170710 & 13C3-PFBS & 181 (50-150) & PFBS & UJ (all non-detects) & P \\
\hline 18-GW-18MCAS07-3-20170710 & 13C2-PFTeDA & 12.7 (50-150) & PFTeDA & NA & - \\
\hline 24-GW-24MW08B-20170710 & 13C2-PFTeDA & 7.8 (50-150) & PFTeDA & NA & - \\
\hline 24-GW-24EX11-20170710 & 13C3-PFBS & 224 (50-150) & PFBS & \(J\) (all detects) & P \\
\hline SGV-GW-SGV Transfer Station-20170710** & 13C3-PFBS & 180 (50-150) & PFBS & J (all detects) & P \\
\hline SGV-GW-SGV Transfer Station-20170710** & 13C2-PFTeDA & 26.6 (50-150) & PFTeDA & NA & - \\
\hline
\end{tabular}

\section*{XI. Compound Quantitation}

All compound quantitations met validation criteria for samples which underwent Stage 4 validation.

The laboratory limit of quantitation (LOQ) and limit of detection (LOD) dilution are higher than the QAPP LOQ and LOD.

The laboratory detection limit (DL) for PFOS is higher than the QAPP DL.
Raw data were not reviewed for Stage 2B validation.

\section*{XII. 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.

\section*{XIII. System Performance}

The system performance was acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

\section*{XIV. Overall Assessment of Data}

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to MS/MSD \%R and RPD and internal standards \%R, data were qualified as estimated in three samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated \((J)\) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

MCAS El Toro, BRAC PFAs Perfluorinated AlkyI Acids - Data Qualification Summary - SDG 1700851
\begin{tabular}{||l|l|c|c|c||}
\hline \multicolumn{1}{|c|}{ Sample } & Compound & \multicolumn{1}{c|}{ Flag } & A or P & Reason \\
\hline \hline SGV-GW-SGV Transfer Station-20170710** & \begin{tabular}{l} 
PFHxS \\
PFOS
\end{tabular} & \begin{tabular}{l}
J (all detects) \\
J (all detects)
\end{tabular} & A & \begin{tabular}{l} 
Matrix spike/Matrix spike \\
duplicate (\%R)
\end{tabular} \\
\hline SGV-GW-SGV Transfer Station-20170710** & \begin{tabular}{l} 
PFHxA \\
PFHxS
\end{tabular} & \begin{tabular}{l} 
J (all detects) \\
J (all detects)
\end{tabular} & A & \begin{tabular}{l} 
Matrix spike/Matrix spike \\
duplicate (RPD)
\end{tabular} \\
\hline 18-GW-18MCAS02-5-20170710 & PFBS & UJ (all non-detects) & P & Internal standards (\%R) \\
\hline \begin{tabular}{l} 
SGV-GW-SGV Transfer Station-20170710** \\
24-GW-24EX11-20170710
\end{tabular} & PFBS & J (all detects) & P & Internal standards (\%R) \\
\hline
\end{tabular}

\section*{MCAS El Toro, BRAC PFAs \\ Perfluorinated Alkyl Acids - Laboratory Blank Data Qualification Summary - SDG 1700851}

No Sample Data Qualified in this SDG
MCAS EI Toro, BRAC PFAs
Perfluorinated Alkyl Acids - Field Blank Data Qualification Summary - SDG 1700851

No Sample Data Qualified in this SDG

LDC \#: 39234B96 VALIDATION COMPLETENESS WORKSHEET
SDG \#: 1700851
Stage 2B/4
Laboratory: Vista Analytical Laboratory
METHOD: LCMS Perfluorinated Alkyl Acids (EPA Method 537)
The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.
\begin{tabular}{|c|c|c|c|}
\hline & Validation Area & & Comments \\
\hline 1. & Sample receipt/Technical holding times & A & \\
\hline 11. & LC/MS Instrument performance check & \(\Delta\) & \\
\hline III. & Initial calibration/ICV & \[
A, A
\] &  \\
\hline IV. & Continuing calibration & \[
A
\] & \[
\operatorname{coc} t \leqslant 3012
\] \\
\hline V . & Laboratory Blanks & \(A\) & 7 \\
\hline VI. & Field blanks & \(N D\) & \(\triangle B=1 \cdot 2 B=2\) \\
\hline VII. & Surrogate spikes & \(N\) & \\
\hline VIII. & Matrix spike/Matrix spike duplicates & 2K1 & \\
\hline IX. & Laboratory control samples & \(A\) & QPR \\
\hline X. & Field duplicates & 4 & \(D=8+10\) \\
\hline XI. & Internal standards & W & \\
\hline XII. & Compound quantitation RL/LOQ/LODs & NW & Not reviewed for Stage 2B validation \\
\hline XIII. & Target compound identification & \[
\not A
\] & Not reviewed for Stage 2B validation \\
\hline XIV. & System performance & \[
\theta
\] & Not reviewed for Stage 2B validation \\
\hline XV. & Overall assessment of data & \[
\mathcal{A}
\] & \\
\hline
\end{tabular}
Note: \(\quad \mathrm{A}=\) Acceptable
\(\mathrm{N}=\) Not provided/applicable SW = See worksheet
ND = No compounds detected \(\mathrm{R}=\) Rinsate FB = Field blank
D = Duplicate
TB = Trip blank \(E B=\) Equipment blank
SB=Source blank OTHER:
** Indicates sample underwent Stage 4 validation
\begin{tabular}{|c|c|c|c|c|}
\hline & Client ID & Lab ID & Matrix & Date \\
\hline 1 & SB01 20170710 & 1700851-01 & Water & 07110117 \\
\hline 2 & ED-0120170740 & -47000544-02 & Water & 07140147 \\
\hline 3 & 18-GW-18MCAS03-5-20170710 & 1700851-03 & Water & 07/10/17 \\
\hline 4 & 18-GW-18MCAS03-2-20170710 & 1700851-04 & Water & 07/10/17 \\
\hline 5 & 18-GW-18MCAS02-5-20170710 & 1700851-05 & Water & 07/10/17 \\
\hline 6 & 18-GW-18MCAS07-3-20170710 & 1700851-06 & Water & 07/10/17 \\
\hline 7 & 24-GW-24MW08B-20170710 & 1700851-07 & Water & 07/10/17 \\
\hline 8 & DUP03-20170710** & 1700851-08** & Water & 07/10/17 \\
\hline 9 & 24-GW-24EX11-20170710 & 1700851-09 & Water & 07/10/17 \\
\hline 10 & SGV-GW-SGV Transfer Station-20170710** & 1700851-10** & Water & 07/10/17 \\
\hline 11 & SGV-GW-SGV Transfer Station-20170710MS & 1700851-10MS & Water & 07/10/17 \\
\hline 12 & SGV-GW-SGV Transfer Station-20170710MSD & 1700851-10MSD & Water & 07/10/17 \\
\hline 13 & & & & \\
\hline
\end{tabular}

\section*{BTCOIOT-BE1}

VALIDATION FINDINGS CHECKLIST


Method: LCMS (EPA Method 537)
\begin{tabular}{|c|c|c|c|c|}
\hline Validation Area & \multicolumn{4}{|l|}{\multirow[t]{2}{*}{}} \\
\hline 1. Technical holding times & & & & \\
\hline \multicolumn{5}{|l|}{Were all technical holding times met?} \\
\hline \multicolumn{5}{|l|}{Was cooler temperature criteria met?} \\
\hline \multicolumn{5}{|l|}{11. LCMS Instrument performance check} \\
\hline Were the instrument performance reviewed and found to be within the specified criteria? & T & & & \\
\hline \multicolumn{5}{|l|}{Were all samples analyzed within the 12 hour clock criteria?} \\
\hline \multicolumn{5}{|l|}{Ma, Initial calibration} \\
\hline \multicolumn{5}{|l|}{Did the laboratory perform a 5 point calibration prior to sample analysis?} \\
\hline \multicolumn{5}{|l|}{Were all percent relative standard deviations (\%RSD) \(\leq 20 \%\) ?} \\
\hline \multicolumn{5}{|l|}{Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit criteria of \(\geq 0.990\) ?} \\
\hline \multicolumn{5}{|l|}{Were all analytes within \(70-130 \%\) or percent differences (\%D) \(\leq 30 \%\) of their true value for each calibration standard} \\
\hline \multicolumn{5}{|l|}{liib. Initial Calibration Verification} \\
\hline Was an initial calibration verification standard analyzed after each initial calibration for each instrument? &  & & & \\
\hline \multicolumn{5}{|l|}{Were all percent differences (\%D) \(\leq 30 \%\) ?} \\
\hline \multicolumn{5}{|l|}{V.Continuing calibration} \\
\hline Was a continuing calibration analyzed daily? & , & & & \\
\hline \multicolumn{5}{|l|}{Were all percent differences (\%D) of the continuing calibration \(\leq 30 \%\) ?} \\
\hline \multicolumn{5}{|l|}{V. Laboratory Blanks} \\
\hline \multicolumn{5}{|l|}{Was a laboratory blank associated with every sample in this SDG?} \\
\hline \multicolumn{5}{|l|}{Was a laboratory blank analyzed for each matrix and concentration?} \\
\hline \multicolumn{5}{|l|}{Was there contamination in the laboratory blanks? If yes, please see the Blanks validation completeness worksheet.} \\
\hline \multicolumn{5}{|l|}{Vi. Field olanks} \\
\hline \multicolumn{5}{|l|}{Were field blanks identified in this SDG?} \\
\hline \multicolumn{5}{|l|}{Were target compounds detected in the field blanks} \\
\hline \multicolumn{5}{|l|}{Vill. Matrix spikematix spike duplicates} \\
\hline \multicolumn{5}{|l|}{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.} \\
\hline \multicolumn{5}{|l|}{Was a MS/MSD analyzed every 20 samples of each matrix?} \\
\hline \multicolumn{5}{|l|}{Were the MS/MSD percent recoveries (\%R) and the relative percent differences (RPD) within the QC limits?} \\
\hline \multicolumn{5}{|l|}{X. Liaboratory control samples} \\
\hline Was an LCS analyzed for this SDG? &  & & & \\
\hline
\end{tabular}

LDC \#: \(\qquad\)
\begin{tabular}{|c|c|c|}
\hline Vataino me & \(1 \mathrm{mg} \mathrm{mog}^{\mathrm{mog}}\) & Enandsascommens \\
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\hline yenerem & & \\
\hline
\end{tabular}

\section*{VALIDATION FINDINGS WORKSHEET} Matrix Spike/Matrix Spike Duplicates/Duplicates

METHOD: LC/MS PFOS/PFOAs (EPA Method 537M)
Please see qualifications below for all questions answered " N ". Not applicable questions are identified as "N/A".
\begin{tabular}{ll} 
N N/A & Were a matrix spike (MS) and matrix spike duplicate (MSD) or duplicate sample analyzed for each matrix in this SDG? \\
N N/N/A & Was a MSSD analyzed every 20 samples of each matrix? \\
Y NNA & Were the MS/MSD percent recoveries (\%R) and the relative percent differences (RPD) within the QC limits? \\
Y N/A & Were all duplicate sample relative percent differences (RPD) or differences within QC limits?
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \# & Date & MS/MSDIDUPID & Compound & \[
\begin{gathered}
\text { MS } \\
\% \mathrm{R}(\text { Limits })
\end{gathered}
\] & \[
\begin{gathered}
\text { MSD } \\
\% R(\text { Limits })
\end{gathered}
\] & \[
\begin{gathered}
\text { RPD } \\
\text { (Limits) }
\end{gathered}
\] & Associated Samples & Qualifications \\
\hline & & \(11 / 12\) & PFHxA & & & \(34.1(\leqslant 30)\) & 10 (dets) & det3/A \\
\hline & & & Prith & & - & 1 & & \\
\hline & & & epftxs & & & 58.8 & & Leter \(A\) \\
\hline & & & PFHXS & 52.470-130) & & & & J/ur/A \\
\hline & & & Pfos & 139 l & & & & Ifta \(/ \mathrm{A}\) \\
\hline & & & & & & & &  \\
\hline & & & & & & & & \\
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\hline
\end{tabular}

LDC\#3923fB96
METHOD: PFCs (Method 537 mod)
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Compound} & \multicolumn{2}{|c|}{Concentration (ng/L)} & \multirow[t]{2}{*}{\begin{tabular}{l}
\[
(\leq 30)
\] \\
RPD
\end{tabular}} & \multirow{2}{*}{Difference} & \multirow{2}{*}{Limits} & \multirow{2}{*}{Qual} \\
\hline & 8 & 10 & & & & \\
\hline PFBS & 80.5 & 76.0 & 6 & & & \\
\hline PFHXA & 267 & 268 & 0 & & & \\
\hline PFHpA & 50.9 & 48.8 & 4 & & & \\
\hline PFHxS & 264 & 295 & 11 & & & \\
\hline PFOA & 232 & 234 & 1 & & & \\
\hline PFOS & 407 & 395 & 3 & & & \\
\hline PFNA & 8.17 & 8.39 & & 0.22 & \(\leq 8.30\) & \\
\hline
\end{tabular}

VALIDATION FINDINGS WORKSHEET
Internal Standards

Page: (of \(/\)
Reviewer: 2nd Reviewer: Cl

\section*{METHOD: LC/MS PFC}

Please see qualifications below for all questions answered " \(N\) ". Not applicable questions are identified as "N/A".
Y (1) N/A Were all internal standard area counts within 50-150\% limits?
WN N/A Were the retention times of the internal standards within \(+/-30\) seconds of the retention times of the associated calibration standard?


VALIDATION FINDINGS WORKSHEET Compound Quantitation and Reported CRQLs

Page: / of /
Reviewer: PG 2nd Reviewer:

\section*{METHOD:}
\(\qquad\)
Please see qualifications below for all questions answered " N ". Not applicable questions are identified as " \(\mathrm{N} / \mathrm{A}\) ". Levgl IVID Only
\(\sim_{N}\) N/A Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?
XN N/A Did the reported results for detected target compounds agree within \(10.0 \%\) of the recalculated results?
\begin{tabular}{|c|c|c|c|c|}
\hline \# & Compound Name & Finding & Associated Samples & Qualifications \\
\hline & All & The laboratory limit of quantitation (LOQ) and limit of detection (LOD) are higher than the QAPP LOQ and LOD & & Text \\
\hline & & & & \\
\hline & All & The laboratory detection limit (DL) for PFOS is higher than the QAPP DL & & \\
\hline & & & & \\
\hline & & & & \\
\hline & & & & \\
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\hline & & & & \\
\hline
\end{tabular}

Comments: See sample calculation verification worksheet for recalculations

Method: LC/MS/MS PFCs
\begin{tabular}{|c|c|c|c|c|c|}
\hline Calibration Date & System & Compound & Standard & \begin{tabular}{l}
(Y) \\
Response
\end{tabular} & \[
\begin{gathered}
\hline(\mathrm{X}) \\
\text { Concentration }
\end{gathered}
\] \\
\hline \multirow[t]{8}{*}{7/24/2017} & \multirow[t]{8}{*}{Q4} & \multirow[t]{8}{*}{PFNA} & 0 & 0.3423663 & 0.25 \\
\hline & & & s1 & 0.61514875 & 0.50 \\
\hline & & & s2 & 1.286095 & 1.00 \\
\hline & & & s3 & 2.65082625 & 2.00 \\
\hline & & & S4 & 6.86290375 & 5.00 \\
\hline & & & s5 & 11.94864375 & 10.00 \\
\hline & & & s6 & 53.26122125 & 50.00 \\
\hline & & & s7 & 109.557083 & 100.00 \\
\hline
\end{tabular}

* W+

Method: LC/MS/MS PFCs
\begin{tabular}{|c|c|c|c|c|c|}
\hline Calibration Date & System & Compound & Standard & \begin{tabular}{l}
(Y) \\
Response
\end{tabular} & \((X)\)
Concentration \\
\hline \multirow[t]{9}{*}{7/28/2017} & \multirow[t]{9}{*}{Q4} & \multirow[t]{9}{*}{PFNA} & 0 & 0.3015750 & 0.25 \\
\hline & & & s1 & 0.6235587 & 0.50 \\
\hline & & & s2 & 1.1884475 & 1.00 \\
\hline & & & s3 & 2.3838875 & 2.00 \\
\hline & & & S4 & 5.6871375 & 5.00 \\
\hline & & & s5 & 11.414025 & 10.00 \\
\hline & & & S6 & 51.11657201 & 50.00 \\
\hline & & & s7 & 106.4871079 & 100.00 \\
\hline & & & s8 & 269.114227 & 250.00 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline \multicolumn{2}{|c|}{Regression Output} & Reported * \\
\hline Constant & -0.164719 & 0.083874 \\
\hline Std Err of Y Est & & \\
\hline R Squared & 0.999871 & 0.999549 \\
\hline Degrees of Freedom & & \\
\hline & & \\
\hline X Coefficient(s) & 1.074147 & 1.068800 \\
\hline Std Err of Coef. & & \\
\hline & & \\
\hline Correlation Coefficient & 0.999935 & \\
\hline Coefficient of Determination ( \(\wedge^{\wedge} 2\) ) & 0.999871 & 0.999549 \\
\hline
\end{tabular}
* W+

VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page:_ _ \(\quad\) of \(/\)
Reviewer:

METHOD: GC \(\qquad\) HPLC \(/ M S\)
The percent difference (\%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated forthe compounds identified below using the following calculation:
\begin{tabular}{|c|c|c|}
\hline \[
\begin{aligned}
& \% \text { Difference }=100 * \text { (ave. } C F-C F \text { )/ave. CF } \\
& C F=A / C
\end{aligned}
\] & Where: & ave. \(C F=\) initial calibration average \(C F\) \(\mathrm{CF}=\) continuing calibration CF \(A=\) Area of compound C = Concentration of compound \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & & & & & Renoted & Recalautat & Pa & \\
\hline \# & Standard ID & \[
\begin{gathered}
\text { Calibration } \\
\text { Date } \\
\hline
\end{gathered}
\] & Compound & Average CF(Ical)! CCV Conc. & CF/Conc ccv & CF/Conc. ccv & \%D & \%D \\
\hline 1 & \(170 \mathrm{E}^{5} 412\) & 7/25/iT & ¢ & 0.500 & 0.492 & 0.491 & \(1-7\) & 1.9 \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline 2 & 170726 ML 2 & \(7 / 26 / 17\) & PFNA & 0.500 & 0.470 & 0.470 & 59 & 6.0 \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline 3 & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline 4 & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline
\end{tabular}

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within \(10.0 \%\) of the recalculated results.

\section*{VALIDATION FINDINGS WORKSHEET}

Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: \(Q\)
2nd Reviewdri.

METHOD: GC \(\sqrt{ }\) HPLC/イS
The percent recoveries (\%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation: \%Recovery \(=100\) * (SSC SC)ISA

RPD \(=\{((S S C M S-S S C M S D\} * 2) /(\) SSCMS + SSCMSD \()) * 100\)
SSC \(=\) Spiked sample concentration SA \(=\) Spike added
MS = Matrix spike
\[
\begin{aligned}
\text { SC } & =\text { Sample concentration } \\
\text { MSD } & =\text { Matrix spike duplicate }
\end{aligned}
\]

MS/MSD samples: \(11 / 1=\)


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.

\section*{Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification}

\section*{METHOD: _GC \(\sqrt{\text { HPLC }}\) OLS}

The percent recoveries (\%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:
\% Recovery \(=100^{*}\) (SSC-SC)/SA

Where: \(\quad\) SSC \(=\) Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery

SC=Concentration
LCSD \(=\) Laboratory control sample duplicate percent recovery

RPD \(=1\) SSCLCS - SSCLCSD 1 * \(2 /(S S C L C S+S S C L C S D)\)
LCS/LCSD samples: \(\$ 14010\) T- 4
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Compound} & \multicolumn{2}{|c|}{\multirow[t]{2}{*}{}} & \multicolumn{2}{|c|}{\multirow[t]{2}{*}{\begin{tabular}{l}
Spiked Sample \\
Concentration
\[
143 / 4
\]
\end{tabular}}} & \multicolumn{2}{|c|}{LCS} & \multicolumn{2}{|c|}{LCSD} & \multicolumn{2}{|c|}{LCS/LCSD} \\
\hline & & & & & \multicolumn{2}{|r|}{Percent Recovery} & \multicolumn{2}{|l|}{Percent Recovery} & \multicolumn{2}{|c|}{RPD} \\
\hline  & LCS & LCSD & LCS & LCSD & Reported & Recalc. & Reported & Recalc. & Reported & Recalc. \\
\hline \multicolumn{11}{|l|}{Gasoline (8015)} \\
\hline \multicolumn{11}{|l|}{Diesel (8015)} \\
\hline \multicolumn{11}{|l|}{Benzene (8021B)} \\
\hline \multicolumn{11}{|l|}{Methane (RSK-175)} \\
\hline \multicolumn{11}{|l|}{2,4-D (8151)} \\
\hline \multicolumn{11}{|l|}{Dinoseb (8151)} \\
\hline \multicolumn{11}{|l|}{Naphthalene (8310)} \\
\hline \multicolumn{11}{|l|}{Anthracene (8310)} \\
\hline \multicolumn{11}{|l|}{HMX (8330)} \\
\hline \multicolumn{11}{|l|}{2,4,6-Trinitrotoluene (8330)} \\
\hline HPNA & \[
0
\] & \(N X\) & \[
-8.4
\] & \[
A
\] & \[
90.0
\] & \[
780
\] & & & & \\
\hline
\end{tabular}

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within \(10.0 \%\) of the recalculated results.

METHOD:_GC \(\sqrt{ }\) HPLE \(/ \mathrm{MLS}_{S}\)
\(\frac{y}{V} N\) N/A \(\quad\) Were all reported results recalculated and verified for all level IV samples?
Concentration= \(\frac{(\mathrm{A})(\mathrm{Fv})(\mathrm{Df})}{(\mathrm{RF})(\mathrm{Vs} \mathrm{or} \mathrm{Ws)}(\% \mathrm{~S} / 100)}\)
\(A=\) Area or height of the compound to be measured Fv= Final Volume of extract
Cf= Dilution Factor
RF= Average response factor of the compound
In the initial calibration
\(\mathrm{Vs}=\) Initial volume of the sample
\(\mathrm{Ws}=\) Initial weight of the sample
\(\% S=\) Percent Solid

Example:
Sample ID. 8 Compound Name PN
\[
\begin{aligned}
\text { Concentration } & =\frac{\left(\frac{4960 \times 12.5}{54500}-0.083874\right)(1)}{(1.0688)(0.12071)} \\
& =8.17 \mathrm{~ns} / L
\end{aligned}
\]

aments:

\title{
Laboratory Data Consultants, Inc. Data Validation Report
}

Project/Site Name:
LDC Report Date:
Parameters:
Validation Level:
Laboratory:

MCAS EI Toro, BRAC PFAs
August 29, 2017
Perfluorinated Alkyl Acids
Stage 2B/4
Vista Analytical Laboratory

Sample Delivery Group (SDG): 1700871
\begin{tabular}{|l|l|l|c|}
\hline \multicolumn{1}{|c|}{ Sample Identification } & \begin{tabular}{c} 
Laboratory Sample \\
Identification
\end{tabular} & Matrix & \begin{tabular}{c} 
Collection \\
Date
\end{tabular} \\
\hline 5-GW-05_DGMW41B-20170712** & \(1700871-02^{* *}\) & Water & \(07 / 12 / 17\) \\
\hline 18-GW-18BGM03E-20170712 & \(1700871-03\) & Water & \(07 / 12 / 17\) \\
\hline 24-GW-24IN03-20170712 & \(1700871-04\) & Water & \(07 / 12 / 17\) \\
\hline DUP02-20170712 & \(1700871-05\) & Water & \(07 / 12 / 17\) \\
\hline 24-GW-24EX13A-20170712 & \(1700871-06\) & Water & \(07 / 12 / 17\) \\
\hline 24-GW-24MW15D-20170712 & \(1700871-07\) & Water & \(07 / 12 / 17\) \\
\hline 16-GW-16_MW28-20170712 & \(1700871-08\) & Water & \(07 / 12 / 17\) \\
\hline 16-GW-16_MW19-20170712 & 1700871109 & Water & \(07 / 12 / 17\) \\
\hline 16-GW-16_MW04-20170713** & \(1700871-11^{* *}\) & Water & \(07 / 13 / 17\) \\
\hline
\end{tabular}
**Indicates sample underwent Stage 4 validation

\section*{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 (Field Sampling Plan and Quality Assurance Project Plan) for Initial Assessment of Per-Fluorinated Compounds (PFCS) or Per- and Polyfluoroalkyl Substances (PFAS) Sites at Various Base Realignment and Closure (BRAC) Installations (March 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 Contract Laboratory Program National Functional Guidelines (CLPNFG) for Superfund Organic Methods Data Review (August 2014). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:
Perfluorinated Alkyl Acids by Environmental Protection Agency (EPA) Method 537
All sample results were subjected to Stage \(2 B\) 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:
\(J \quad\) (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 (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.

NJ (Presumptive and Estimated): The analysis indicates the presence of a compound or analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

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.

\section*{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.

\section*{II. LC/MS Instrument Performance Check}

Instrument performance was not required by the method.

\section*{III. Initial Calibration and Initial Calibration Verification}

Initial calibration was performed as required by the method.
For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (\%RSD) were less than or equal to 20.0\%.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination \(\left(r^{2}\right)\) were greater than or equal to 0.990 .

For each calibration point, the percent differences (\%D) of its 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.

\section*{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.

\section*{V. Laboratory Blanks}

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

\section*{VI. Field Blanks}

Samples EB03-20170712 and EB04-20170713 were identified as equipment blanks. No contaminants were found.

Sample SB01_20170710 (from SDG 1700851) was identified as a source blank. No contaminants were found.

\section*{VII. Matrix Spike/Matrix Spike Duplicates}

The laboratory has indicated that there were no matrix spike (MS) and matrix spike
duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

\section*{VIII. Ongoing Precision Recovery Samples}

Ongoing precision recovery (OPR) samples were analyzed as required by the method. Percent recoveries (\%R) were within QC limits.

\section*{IX. Field Duplicates}

Samples 24-GW-24IN03-20170712 and DUP02-20170712 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Compound} & \multicolumn{2}{|c|}{Concentration (ng/L)} & \multirow[b]{2}{*}{\[
\begin{gathered}
\text { RPD } \\
\text { (Limits) }
\end{gathered}
\]} & \multirow[b]{2}{*}{Difference (Limits)} & \multirow[b]{2}{*}{Flag} & \multirow[b]{2}{*}{A or P} \\
\hline & 24-GW-24IN03-20170712 & DUP02-20170712 & & & & \\
\hline PFBS & 8.97 & 9.66 & - & 0.69 ( 58.52 ) & - & - \\
\hline PFHxA & 41.2 & 44.7 & - & 3.5 ( 58.52 ) & - & - \\
\hline PFHpA & 5.95 & 6.96 & - & 1.01 ( 58.52 ) & - & - \\
\hline PFHxS & 18.9 & 17.6 & - & 1.3 ( \(\leq 8.52\) ) & - & - \\
\hline PFOA & 40.3 & 42.7 & - & 2.4 ( \(\leq 8.52\) ) & - & - \\
\hline
\end{tabular}

\section*{X. Internal Standards}

All internal standard recoveries (\%R) were within QC limits with the following exceptions:
\begin{tabular}{||l|l|l|l|l|c||}
\hline \multicolumn{1}{|c|}{ Sample } & \begin{tabular}{c} 
Internal \\
Standards
\end{tabular} & \%R (Limits) & \multicolumn{1}{c|}{\begin{tabular}{c} 
Affected \\
Compound
\end{tabular}} & Flag & A or P \\
\hline \hline 24-GW-24IN03-20170712 & \(13 C 2\)-PFTeDA & \(3.50(50-150)\) & PFTeDA & NA & - \\
\hline DUP02-20170712 & \(13 C 2-\) PFTeDA & \(19.3(50-150)\) & PFTeDA & NA & - \\
\hline \(16-\) GW-16_MW04-20170713** & 13C4-PFHpA & \(162(50-150)\) & PFHpA & UJ (all non-detects) & P \\
\hline 16-GW-16_MW04-20170713** & 13C2-PFTeDA & \(33.6(50-150)\) & PFTeDA & NA & - \\
\hline
\end{tabular}

\section*{XI. Compound Quantitation}

All compound quantitations met validation criteria for samples which underwent Stage 4 validation.

The laboratory limit of quantitation (LOQ) and limit of detection (LOD) are higher than the QAPP LOQ and LOD.

The laboratory detection limit (DL) for PFOS is higher than the QAPP DL.
Raw data were not reviewed for Stage 2B validation.

\section*{XII. 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.

\section*{XIII. System Performance}

The system performance was acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

\section*{XIV. Overall Assessment of Data}

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to internal standards \%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.

MCAS El Toro, BRAC PFAs
Perfluorinated Alkyl Acids - Data Qualification Summary - SDG 1700871
\begin{tabular}{||c|c|c|c|c||}
\hline Sample & & & & \\
\hline Compound & Flag & A or P & Reason \\
\hline 16-GW-16_MW04-20170713** & PFHpA & UJ (all non-detects) & P & Internal standards (\%R) \\
\hline
\end{tabular}

MCAS EI Toro, BRAC PFAs
Perfluorinated Alkyl Acids - Laboratory Blank Data Qualification Summary - SDG 1700871

No Sample Data Qualified in this SDG
MCAS El Toro, BRAC PFAs
Perfluorinated Alkyl Acids - Field Blank Data Qualification Summary - SDG 1700871

No Sample Data Qualified in this SDG

LDC \#: 39234C96 VALIDATION COMPLETENESS WORKSHEET
SDG \#: 1700871 \(\qquad\) Stage 2B/4
Laboratory: Vista Analytical Laboratory
METHOD: LCMS Perfluorinated Alkyl Acids (EPA Method 537)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

Note: \(\quad \mathrm{A}=\) Acceptable

ND = No compounds detected
D = Duplicate
\(T B=\) Trip blank \(E B=\) Equipment blank
SB=Source blank
OTHER: \(\mathrm{R}=\) Rinsate
** Indicates sample underwent Stage 4 validation


Method: LCMS (EPA Method 537)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Validation Area & Yes & No & \multicolumn{3}{|l|}{NA Findings/Comments} \\
\hline \multicolumn{6}{|l|}{1. Technical holding times} \\
\hline \multicolumn{6}{|l|}{Were all technical holding times met?} \\
\hline \multicolumn{6}{|l|}{Was cooler temperature criteria met?} \\
\hline \multicolumn{6}{|l|}{11. LCMMS Instrument performance check} \\
\hline \multicolumn{6}{|l|}{Were the instrument performance reviewed and found to be within the specified criteria?} \\
\hline \multicolumn{6}{|l|}{Were all samples analyzed within the 12 hour clock criteria?} \\
\hline \multicolumn{6}{|l|}{Ha. Inital calloration:} \\
\hline \multicolumn{6}{|l|}{Did the laboratory perform a 5 point calibration prior to sample analysis?} \\
\hline \multicolumn{6}{|l|}{Were all percent relative standard deviations (\%RSD) \(\leq 20 \%\) ?} \\
\hline \multicolumn{6}{|l|}{Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit criteria of \(\geq 0.990\) ?} \\
\hline \multicolumn{6}{|l|}{Were all analytes within \(70-130 \%\) or percent differences (\%D) \(\leq 30 \%\) of their true value for each calibration standard} \\
\hline \multicolumn{6}{|l|}{} \\
\hline Was an initial calibration verification standard analyzed after each initial calibration for each instrument? & , & & & & \\
\hline \multicolumn{6}{|l|}{Were all percent differences (\%D) \(\leq 30 \%\) ?} \\
\hline \multicolumn{6}{|l|}{V=continug calioration} \\
\hline Was a continuing calibration analyzed daily? & 7 & & & & \\
\hline \multicolumn{6}{|l|}{Were all percent differences (\%D) of the continuing calibration \(\leq 30 \%\) ?} \\
\hline \multicolumn{6}{|l|}{V. Laboratory Blanks} \\
\hline \multicolumn{6}{|l|}{Was a laboratory blank associated with every sample in this SDG?} \\
\hline \multicolumn{6}{|l|}{Was a laboratory blank analyzed for each matrix and concentration?} \\
\hline \multicolumn{6}{|l|}{Was there contamination in the laboratory blanks? If yes, please see the Blanks validation completeness worksheet.} \\
\hline \multicolumn{6}{|l|}{Mi-Field blanks} \\
\hline \multicolumn{6}{|l|}{Were field blanks identified in this SDG?} \\
\hline \multicolumn{6}{|l|}{Were target compounds detected in the field blanks?} \\
\hline \multicolumn{6}{|l|}{Vil. Matrix spikematrix spike duplicates} \\
\hline \multicolumn{6}{|l|}{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.} \\
\hline \multicolumn{6}{|l|}{Was a MS/MSD analyzed every 20 samples of each matrix?} \\
\hline \multicolumn{6}{|l|}{Were the MS/MSD percent recoveries (\%R) and the relative percent differences (RPD) within the QC limits?} \\
\hline \multicolumn{6}{|l|}{IX. Laboratory control samples} \\
\hline Was an LCS analyzed for this SDG? &  & & & & \\
\hline
\end{tabular}

VALIDATION FINDINGS CHECKLIST

\begin{tabular}{|c|c|c|c|c|}
\hline Validation Area & Yes & No & NA & Findings/Comments \\
\hline Was an LCS analyzed per extraction batch? & 7 & & & \\
\hline \multicolumn{5}{|l|}{\multirow[b]{2}{*}{\begin{tabular}{l}
within the QC limits? \\
X Field duplicates
\end{tabular}}} \\
\hline & & & & \\
\hline Were field duplicate pairs identified in this SDG? & \(\gamma\) & & & \\
\hline Were target compounds detected in the field duplicates?. & \(\angle\) & & & \\
\hline \multicolumn{5}{|l|}{Xi internal standards \(2 \times\).} \\
\hline Were internal standard area counts within \(\pm+50 \%\) of the associated calibration standard? & & & & \\
\hline \multicolumn{5}{|l|}{} \\
\hline Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound? & \(r\) & & & \\
\hline Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to leveI IV validation? & 7 & & & \\
\hline \multicolumn{5}{|l|}{XIII. Target compound identification} \\
\hline \multicolumn{5}{|l|}{Were relative retention times (RRT's) within \(\pm 0.06\) RRT units of the standard?} \\
\hline \multicolumn{5}{|l|}{Did compound spectra meet specified EPA "Functional Guidelines" criteria?} \\
\hline \multicolumn{5}{|l|}{Were chromatogram peaks verified and accounted for?} \\
\hline \multicolumn{5}{|l|}{Xiv. System performance} \\
\hline \multicolumn{5}{|l|}{System performance was found to be acceptable.} \\
\hline \multicolumn{5}{|l|}{Xili. Overall assessment of data} \\
\hline Overall assessment of data was found to be acceptable. & \(\square\) & & & \\
\hline
\end{tabular}

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1 Reviewer: \(\overline{\text { ¢ }}\) 2nd Reviewer: \(\qquad\)

METHOD: PFCs (Method 537 mod)
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Compound} & \multicolumn{2}{|c|}{Concentration (ng/L)} & \multirow[t]{2}{*}{\begin{tabular}{l}
\[
(\leq 30)
\] \\
RPD
\end{tabular}} & \multirow{2}{*}{Difference} & \multirow{2}{*}{Limits} & \multirow{2}{*}{Qual} \\
\hline & 4 & 5 & & & & \\
\hline PFBS & 8.97 & 9.66 & & 0.69 & \(\leq 8.52\) & \\
\hline PFHXA & 41.2 & 44.7 & & 3.5 & \(\leq 8.52\) & \\
\hline PFHpA & 5.95 & 6.96 & & 1.01 & \(\leq 8.52\) & \\
\hline PFHxS & 18.9 & 17.6 & & 1.3 & s8.52 & \\
\hline PFOA & 40.3 & 42.7 & & 2.4 & \(\leq 8.52\) & \\
\hline
\end{tabular}

\section*{METHOD: LC/MS PFCs}

Pleage see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Were all internal standard area counts within \(50-150 \%\) limits?
Y N N/A Were the retention times of the internal standards within \(+/-30\) seconds of the retention times of the associated calibration standard?
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \# & Date & Sample ID & \begin{tabular}{l}
Internal \\
Standard
\end{tabular} & Area (Limits) & RT (Limits) & Qualifications \\
\hline & & 4 & \(13<2 \rightarrow 5\) & 3.50 (50-150) & & \[
\sqrt{6}+(\mathrm{ND})
\] \\
\hline & & & \[
\bar{I}
\] & 1 & & \(17 \rightarrow\) \\
\hline & & 5 & \(\checkmark\) & 193 & & \[
\sqrt{ }(N O)
\] \\
\hline & & & & & & 1 \\
\hline & & & BC4-9ftha & 162 & & \[
v / n+1 \quad(N)
\] \\
\hline & & & \(13 c^{2-p F \mid C D A}\) & \[
33,6
\] & & vanfers \\
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\hline
\end{tabular}
```

METHOD:

``` \(\qquad\)
``` GC HPLC
```

Please see qualifications below for all questions answered " N ". Not applicable questions are identified as "N/A". Level IVID Only
Y N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?
N N/A Did the reported results for detected target compounds agree within $10.0 \%$ of the recalculated results?

$\left.\begin{array}{||l|l|l|l|l||}\hline \hline \# & \text { Compound Name } & & & \text { Associated Samples }\end{array}\right]$| Qualifications |
| :---: |

Comments: See sample calculation verification worksheet for recalculations

Page:

Method: LC/MS/MS PFCs

| Calibration Date | System | Compound | Standard | (Y) <br> Response | $\begin{gathered} \hline(X) \\ \text { Concentration } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7/27/2017 | Q4 | PFBS | 0 | 0.5308925 | 0.25 |
|  |  |  | s1 | 1.0003625 | 0.50 |
|  |  |  | s2 | 2.000095 | 1.00 |
|  |  |  | s3 | 4.2364375 | 2.00 |
|  |  |  | S4 | 10.778003 | 5.00 |
|  |  |  | s5 | 18.456016 | 10.00 |
|  |  |  | s6 | 94.914883 | 50.00 |
|  |  |  | s7 | 186.169710 | 100.00 |


| Regression Output |  | Reported ${ }^{\text {\% }}$ |
| :---: | :---: | :---: |
| Constant | 0.454206 | 0.124036 |
| Std Err of Y Est |  |  |
| R Squared | 0.999877 | 0.999166 |
| Degrees of Freedom |  |  |
|  |  |  |
| X Coefficient(s) | 1.863424 | 1.879080 |
| Std Err of Coef. |  |  |
|  |  |  |
| Correlation Coefficient | 0.999939 |  |
| Coefficient of Determination ( $\mathrm{r}^{\wedge} 2$ ) | 0.999877 | 0.999166 |

$$
* W+
$$

Method: LC/MS/MS PFCs



* W+

Method: LC/MS/MS PFCs

| Calibration Date | System | Compound | Standard | (Y) <br> Response | $(\mathrm{X})$ Concentration |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8/1/2017 | Q4 | PFBS | 0 | 0.5318012 | 0.25 |
|  |  |  | s1 | 1.0024725 | 0.50 |
|  |  |  | s2 | 2.005095 | 1.00 |
|  |  |  | s3 | 4.1366337 | 2.00 |
|  |  |  | s4 | 9.4071825 | 5.00 |
|  |  |  | s5 | 18.311911 | 10.00 |
|  |  |  | s6 | 89.723891 | 50.00 |
|  |  |  | s7 | 185.21046 | 100.00 |
|  |  |  | S8 | 479.232035 | 250.00 |


| Regression Output |  | Reported * |
| :---: | :---: | :---: |
| Constant | -1.167746 | 0.067014 |
| Std Err of Y Est |  |  |
| R Squared | 0.999710 | 0.999400 |
| Degrees of Freedom |  |  |
|  |  |  |
| X Coefficient(s) | 1.910618 | 1.884080 |
| Std Err of Coef. |  |  |
|  |  |  |
| Correlation Coefficient | 0.999855 |  |
| Coefficient of Determination ( $\mathrm{r}^{\wedge} 2$ ) | 0.999710 | 0.999400 |

* Wt


## VALIDATION FINDINGS WORKSHEET

 Continuing Calibration Results VerificationPage：＿＿of 1

METHOD：GC


The percent difference（\％D）of the initial calibration average Calibration Factors（CF）and the continuing calibration CF were recalculated for the compounds identified below using the following calculation：

| \％Difference $=100 *$（ave．$C F-C F$ ）／ave．$C F \quad$ Where：$\quad$ ave．$C F$ | $=$ initial calibration average $C F$ |
| ---: | :--- |
| $C F$ | $=$ continuing calibration $C F$ |
| $A$ | $=$ Area of compound |
| $C$ | $=$ Concentration of compound |


| \＃ | Standard ID | Calibration | compound | Average CF（Ical）！ ccv conc． | Renoted | Recaleulated | Renoted | Recalculated <br> \％D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { CF/CCOnc. } \end{gathered}$ | CF／Conc． ccv | \％D |  |
| 1 | 170 FTM 66 | $7 / 27 / 17$ | Pfos | 0.500 | 0.498 | 0498 | 0.4 | 0.3 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | 1707．7M1－9 | $7 / 28 / 17$ | PFBS | 10.00 | 9.33 | 9.20 | 7.7 | 7.8 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| $3$ | 170731 LL 201 | 7／31／17 | 中Tr力A | 10.0 | 10.7 | $10^{7}$ | 68 | 6.9 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | $170803 \mathrm{k}=2$ | $8 / 3 / 17$ | 中fBS | 1.00 | 0.919 | 0.917 | 8.1 | 8.3 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

Comments：Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within $10.0 \%$ of the recalculated results．

## Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: 9 2nd Reviewer:

## METHOD: __GC VHPLC/JS

The percent recoveries (\%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

| \% Recovery $=100^{*}(S S C-S C) / S A$ | Where: | SSC = Spiked sample concentration |
| :--- | :--- | :--- |
| RPD $=\mid$ SSCLCS - SSCLCSD $\left.\right\|^{*} 2 /($ SSCLCS + SSCLCSD $)$ |  | SA $=$ Spike added |

LCS/LCSD samples:
BT $906 T-B 51$

|  | $\begin{aligned} & \text { Spike } \\ & \text { Added } \\ & \hline \text { (AS/ } \end{aligned}$ |  | Spiked Sample Concentration $(n 5 / 2+$ |  | LCS |  | LCSD |  | LCS/LCSD |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Compound |  |  | Percent Recovery | Percent Recovery |  | RPD |  |
|  | LCS | LCSD |  |  | LCS | LCSD | Reported | Recalc. | Reported | Recalc. | Reported | Recalc. |
| Gasoline (8015) |  |  |  |  |  |  |  |  |  |  |
| Diesel (8015) |  |  |  |  |  |  |  |  |  |  |
| Benzene (8021B) |  |  |  |  |  |  |  |  |  |  |
| Methane (RSK-175) |  |  |  |  |  |  |  |  |  |  |
| 2,4-D (8151) |  |  |  |  |  |  |  |  |  |  |
| Dinoseb (8151) |  |  |  |  |  |  |  |  |  |  |
| Naphthalene (8310) |  |  |  |  |  |  |  |  |  |  |
| Anthracene (8310) |  |  |  |  |  |  |  |  |  |  |
| HMX (8330) |  |  |  |  |  |  |  |  |  |  |
| 2,4,6-Trinitrotoluene (8330) |  |  |  |  |  |  |  |  |  |  |
|  | $40^{\circ}$ | $\Delta$ |  | $\Delta 4$ | $96.7$ | $9 \leqslant 7$ |  |  |  |  |

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within $10.0 \%$ of the recalculated results.

$$
\text { METHOD: _ BC } \sqrt{ } \text { HPLG/KlS }
$$

$Y$ N N/A Were all reported results recalculated and verified for all level IV samples?
YN N/A Were all recalculated results for detected target compounds agree within $10 \%$ of the reported results?

Concentration= $\qquad$ (A) (Fv)(Df) (RF)(Vs or Ws)(\%S/100)
$A=$ Area or height of the compound to be measured
Fy= Final Volume of extract
Bf= Dilution Factor
$R F=$ Average response factor of the compound In the initial calibration
$V s=$ Initial volume of the sample
Ns= Initial weight of the sample
$\% \mathrm{~S}=$ Percent Solid

Example:
Sample ID. $\qquad$ 2


comments: $\qquad$

The LDC job number listed above was entered by


|  | EDD Process |  | Comments/Action |
| :---: | :---: | :---: | :---: |
| I. | EDD Completeness | - |  |
| Ia. | - All methods present? | 4 |  |
| Ib. | - All samples present/match report? | 4 |  |
| Ic. | - All reported analytes present? | 4 |  |
| Id. | (10\%) or $100 \%$ verification of EDD? | 4 |  |
|  | - ${ }^{\text {a }}$ |  |  |
| II. | EDD Preparation/Entry | - |  |
| IIa. | - Carryover U/J? | - |  |
| IIb. | - Reason Codes used? If so, note which codes. | 4 | client |
| If. | - Additional Information (QC Level, Validator, Validated $\mathrm{Y} / \mathrm{N}$, etc.) | 4 |  |
|  |  |  |  |
| III. | Reasonableness Checks | - |  |
| HIIa. | - Do all qualified ND results have ND qualifier (e.g. UJ)? | 4 |  |
| IIlb. | - Do all qualified detect results have detect qualifier (e.g. J)? | 4 |  |
| Hilc. | - If reason codes are used, do all qualified results have reason code field populated, and vice versa? | 4 |  |
| HIId. | -Does the detect flag require changing for blank qualifier? If so, are all U results marked ND? | $1$ |  |
| IIIe. | - Do blank concentrations in report match EDD where data was qualified due to blank contamination? | - |  |
| IIIf. | - Were multiple results reported due to dilutions/reanalysis? If so, were results qualified appropriately? | $1$ |  |
| IIIg. | -Are there any discrepancies between the data packet and the EDD? | $N$ |  |

[^4]| INSTALLATION_ID | SITE_NAME | LOCATION_NAME | LOCATION_TYPE_DESC | COORD_X | COORD_Y | SAMPLE_NAME | SAMPLE_MATRIX_DESC | COLLECT_DATE | \|ANALYTICAL_METHOD_GRP_DESC | SDG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | 24-GW-24INO3-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_INO3 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | 24-GW-24INO3-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | 24-GW-24INO3-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_INO3 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_INO3 | Well |  |  | 24-GW-24INO3-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_INO3 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | 24-GW-24INO3-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |


| INSTALLATION_ID | SITE_NAME | LOCATION_NAME | LOCATION_TYPE_DESC | COORD_X | COORD_Y | SAMPLE_NAME | SAMPLE_MATRIX_DESC | COLLECT_DATE | ANALYTICAL_METHOD_GRP_DESC | SDG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_INO3 | Well |  |  | 24-GW-24INO3-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | 24-GW-24INO3-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_INO3 | Well |  |  | 24-GW-24INO3-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_INO3 | Well |  |  | 24-GW-24INO3-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | 24-GW-24INO3-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_INO3 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | 24-GW-24IN03-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_INO3 | Well |  |  | 24-GW-24INO3-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |


| INSTALLATION_ID | SITE_NAME | LOCATION_NAME | LOCATION_TYPE_DESC | COORD_X | COORD_Y | SAMPLE_NAME | SAMPLE_MATRIX_DESC | COLLECT_DATE | ANALYTICAL_METHOD_GRP_DESC | SDG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EL_TORO_MCAS | SITE 00024 | 24_INO3 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 18BGMWO3E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24MW15D | Monitoring well | 6105646.18 | 2192454.22 | 24-GW-24MW15D-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_INO3 | Well |  |  | 24-GW-24IN03-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24EX13A | Well | 6107553.14 | 2190629.84 | 24-GW-24EX13A-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW19 | Monitoring well | 6110697.43 | 2192979.19 | 16-GW-16_MW19-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00005 | 05_DGMW41B | Monitoring well | 6117477.15 | 2188881.52 | 5-GW-05_DGMW41B-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16-MW28 | Monitoring well | 6109532.09 | 2193182.88 | 16-GW-16_MW28-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | DUP02-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 24_IN03 | Well |  |  | 24-GW-24IN03-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00016 | 16_MW4 | Well | 6110516.9 | 2193114.4 | 16-GW-16_MW04-20170713 | Ground water | 13-Jul-17 | Perfluoroalkyl Compounds | 1700871 |
| EL_TORO_MCAS | SITE 00024 | 8BGMW03E | Monitoring well | 6109474.2 | 2188867.49 | 18-GW-18BGM03E-20170712 | Ground water | 12-Jul-17 | Perfluoroalkyl Compounds | 170087 |


[^0]:    Work Order 1700871

[^1]:    Work Order 1700871

[^2]:    Work Order 1700871

[^3]:    Comments: See sample calculation verification worksheet for recalculations

[^4]:    Notes: *see discrepancy sheet

