



**Surface Water Sample Results,
Level 4 Laboratory Report, Electronic Data
Deliverable, Data Validation Report, Sample Location
Report, SDG 20-1419**

*NRL
Chesapeake Bay Detachment, MD*

October 2021

**CTO-4532: NRL Chesapeake Bay Detachment
(NRL-CBD) Site 10
Project No 100142218
PFAS by DoD QSM 5.3 Table B-15**

SW

Batch 20-1419

Package DP-20-1298

Submitted to:

CH2M

5701 Cleveland Street

Virginia Beach, VA 23462 USA

Submitted by:

Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

BATTELLE

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**CTO-4532: NRL Chesapeake Bay Detachment
(NRL-CBD) Site 10
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Submitted to:
CH2M
5701 Cleveland Street
Virginia Beach, VA 23462 USA

NELAP Accreditation Number: E87856 (Florida Department of Health)

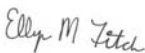
Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

Analyst Approval:



Digitally signed by Denise Schumitz
Date: 2020.11.10 18:26:44 -05'00'

QC Chemist Approval:



Digitally signed by Ellyn M. Fitch
Date: 2020.11.11 14:20:12 -05'00'

Project Manager Approval:



Digitally signed by Jonathan Thorn
Date: 2020.11.11 14:24:52 -05'00'



CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No 100142218

PFAS by DoD QSM 5.3 Table B-15

SW

Batch 20-1419


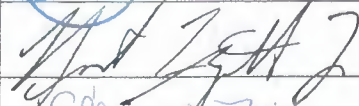






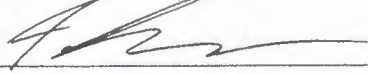





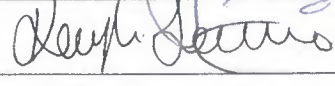
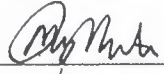
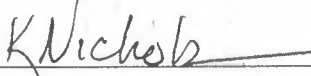

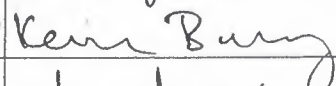
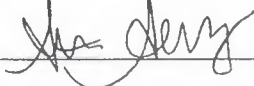
Package DP-20-1298

| | | |
|----------|---|------------|
| 1 | <i>Work Plan</i> Laboratory Work Plan, Addendums To Work Plan, Memos From Project Manager, Special Instructions, Chain-of-Custody Reports. | 1 |
| 2 | <i>Tables</i> Analytical Data Tables, Qualifier Definitions. | 22 |
| 3 | <i>Miscellaneous Documentation</i> Case Narrative, Miscellaneous Documentation Form, Quality Control Summary, Example Calculations, Internal Standard Recovery Report, Retention Time Window Report. | 50 |
| 4 | <i>Sample Preparation Records</i> Sample Preparation Records, Dilution Worksheets, Standard Preparation Records, Certificates Of Analysis, GPC Check Report. | 180 |
| 5 | <i>Analytical Calibrations</i> Analytical Sequence, Analytical Method, Tune Report, Initial Calibration, Pesticide Degradation Report, RF Summary, Calibration Verifications, Independent Calibration Verification Check. | 199 |
| 6 | <i>Analytical Data</i> Raw Data Quantification Reports. | 312 |
| 7 | <i>Chromatograms</i> Sample And Standard Chromatograms. | 361 |
| 8 | <i>Unused Data</i> | N/A |


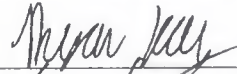
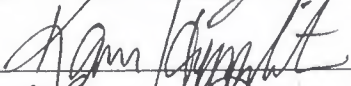


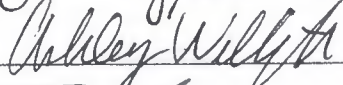


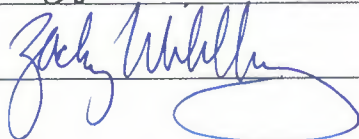
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Master Signature Page

| Name (Printed) | Signature | Initials | Date |
|---------------------|---|----------|------------|
| Jonathan Thom |  | JRT | 1/9/2020 |
| Robert Lizotte, Jr. |  | BL | 1.9.2020 |
| Elyn M Fitch |  | EF | 1/9/2020 |
| Carla Devine |  | CRD | 1/9/2020 |
| Denzel Schumitz |  | DS | 1/9/2020 |
| Lauren Griffith |  | LMG | 1.9.2020 |
| Carrie P McLaughlin |  | CPM | 1/9/2020 |
| Rich Restucci |  | RR | 1/9/2020 |
| Sam Guimaraes |  | SAG | 1/9/2020 |
| Jordan Tower |  | JT | 1/9/2020 |
| Christie Usher |  | CU | 1/9/2020 |
| Kevin McInerney |  | KM | 1/14/2020 |
| Matt Schumitz |  | MDS | 1/14/2020 |
| Weidong Li |  | W.L | 1/14/2020 |
| Kayla Lamarre |  | KAL | 1/14/2020 |
| MUNAZ MUNTASIR |  | MM | 01/14/2020 |
| Kristen Nichols |  | KN | 01/14/2020 |
| Kelsey Harnden |  | KH | 01/30/2020 |
| Kevin Bailey |  | KB | 1/30/2020 |
| Stephanie Schultz |  | SAS | 1/30/2020 |

Master Signature Page

| Name (Printed) | Signature | Initials | Date |
|--------------------|--|----------|------------|
| Uimiceo Brown |  | UB | 01/30/20 |
| Ryan Kelly |  | RK | 01/30/20 |
| KAREN HYPPOLITE |  | K.H. | 01/31/20 |
| Gail DeRuzzo |  | GD | 01/31/2020 |
| Tracy Stenner |  | JWS | 1/31/2020 |
| Ashley Wellington |  | AW | 1/31/2020 |
| Daniel Cooney |  | DAC | 1/31/2020 |
| Peter Demers |  | PD | 1/31/2020 |
| Zachary Willenberg |  | ZW | 2/3/2020 |
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Sample Summary

Client: CH2M
SDG: 20-1419
Project/Site: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
CTO: 4532

| Lab Sample ID | Client Sample ID | Matrix | Collection Date | Receipt Date |
|---------------|---------------------------|--------|-----------------|--------------|
| DB253PB-FS | Procedural Blank | WATER | 11/4/2020 | 11/4/2020 |
| DB254LCS-FS | Laboratory Control Sample | WATER | 11/4/2020 | 11/4/2020 |
| G1644-FS1 | CBD-AOA-SW07-1020 | SW | 10/13/2020 | 10/14/2020 |
| G1645-FS1 | CBD-AOA-SW05-1020 | SW | 10/13/2020 | 10/14/2020 |
| G1646-FS1 | CBD-AOA-SW03-1020 | SW | 10/13/2020 | 10/14/2020 |
| G1647-FS1 | CBD-AOA-SW04-1020 | SW | 10/13/2020 | 10/14/2020 |
| G1651-FS1 | CBD-AOA-SW02-1020 | SW | 10/13/2020 | 10/14/2020 |
| G1654-FS1 | CBD-AOA-SW01-1020 | SW | 10/13/2020 | 10/14/2020 |
| G1661-FS1 | CBD-AOA-SW06-1020 | SW | 10/13/2020 | 10/14/2020 |
| G1668-FS1 | CBD-AOA-SW09-1020 | SW | 10/13/2020 | 10/14/2020 |

Work Plan



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WORK/QUALITY ASSURANCE PROJECT PLAN

1.0 GENERAL PROJECT INFORMATION

Project Title: CTO-4532: PFAS in Water
Project Number: 100142218
Client: CH2M
 2411 Dulles Corner Park
 Suite 500
 Herdon, VA 20171
 USA

Client Contact Information: Michael Zamboni
 Project Chemist
 (703) 376-5301(V)
 NA
 Michael.Zamboni@jacobs.com

Effective Date of QAPP: 10/1/2020
Version Number: 100142218(L)-02
Project Manager: Thorn, Jonathan
Laboratory Task Manager: Thorn, Jonathan
Deliverable Due Date: 10/29/2020

2.0 SCOPE OF WORK

Overview: Analysis of non-potable water for PFAS.
Matrix: Water

2.1 TECHNICAL APPROACH

2.1.1 Sample Receipt, Storage, and Handling

The list of samples for this project plan are presented in Attachment 1.

Storage Directions: Store samples refrigerated prior to extraction.
Sub_Sampling: None
Procedures: NA
Contact: NA
Comment: None.
Archiving: Store excess samples for six months after delivery of final data.
Disposal: Dispose of samples in the appropriate waste stream.



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WORK/QUALITY ASSURANCE PROJECT PLAN

2.1.2 Sample Preparation

IDW samples should be batched separately from field samples.

| Samples Expected: | Samples Per Batch: | Batches Expected: |
|-------------------|--------------------|-------------------|
| 51 | 20 | 3 |

Batch quality control samples are defined in Table 1.

Target samples are presented in Attachment 1.

Table 1: Quality Control Samples

| Type: | Description: | Count: | Rgt: | Reference: | Comment: |
|-------|--|-------------|------|------------|---|
| PB | Laboratory control reagent blank. | 1 per batch | -- | NA | |
| LCS | Laboratory Control Sample | 1 per batch | No | NA | |
| MS | Spiked field sample for determining method accuracy in the presence of matrix. | 1 per batch | -- | NA | MS/MSD identified on COC with suffix "-MS" and "-SD". |
| MSD | Spiked field sample for determining method accuracy and precision in the presence of matrix. | 1 per batch | -- | NA | |

2.1.3 Extraction/Preparation

2.1.3.1 Extraction

| | |
|---------------------------|---|
| SOP No.-Rev: | 5-370-11 |
| SOP Title: | <i>Extraction of Poly and Perfluoroalkyl Substances from Environmental Matrices</i> |
| Sample Size: | 250 ml |
| SIS and LCS/MS Compounds: | Defined in Table 2. |
| Deviations: | None |
| Comments: | None |

Table 2: SIS and LCS/MS Spiking Level

| Standard Type | Standard Contents | Spike Amount (ng) | Volume (uL) | Comment |
|---|-------------------|-------------------|-------------|---------|
| PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS) | LC22 SIS | ~ 1.13 - 1.25 ng | 125 uL | NA |



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WORK/QUALITY ASSURANCE PROJECT PLAN

| Standard Type | Standard Contents | Spike Amount (ng) | Volume (uL) | Comment |
|--|-------------------|-------------------|-------------|--|
| PFAS - DoD Second Source LCS/MS solution | LD11 LCS/MS | ~ 7.5 ng | 75 uL | Vary spikes 25 (LCS only), 50, 75, 100, 125 µL |

2.1.3.2 Cleanup

None.

RIS spiking levels are presented in Table 3.

Extract PIV (uL): 1000

Table 3: RIS Spiking Level

| Standard Type | Standard Contents | Spike Amount (ng) | Volume (uL) | Comment |
|---|-------------------|-------------------|-------------|---------|
| PFAS - DoD Internal Standard Spiking Solution | LD33 RIS | ~ 1.25 ng | 125 uL | NA |

2.1.4 Instrumental Analysis

The list of analytes along with data quality criteria are presented in Attachment 2.

- 1) SOP_No-Rev: **5-369-08**
- SOP_Title: *Analysis of Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS)*
- Deviations: None.
- Comments: None.

2.2. DELIVERABLES

| | |
|--------------------------|------------|
| Deliverables Due: | 10/29/2020 |
|--------------------------|------------|

| | |
|----------------------|----|
| LIMS Reports: | No |
|----------------------|----|

| | |
|--------------------|----|
| Histograms: | No |
|--------------------|----|

| | |
|----------------------|----|
| Excel Tables: | No |
|----------------------|----|

| | |
|--------------|----|
| EICs: | No |
|--------------|----|

| | |
|-----------------------|----|
| Chromatograms: | No |
|-----------------------|----|

| | |
|--------------|----|
| EDDs: | No |
|--------------|----|



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WORK/QUALITY ASSURANCE PROJECT PLAN

Comments:

- 28-day TAT for most samples
- Samples marked rush will be 7-day TAT
- LIV validation data packages
- CH2M EDD file

3.0 QUALITY

The Method Quality Objectives are defined in Attachment 3.

4.0 ORGANIZATION AND COMMUNICATION

4.1 ORGANIZATION

The project team is defined in Table 4. Supervisors may make substitutions with Project Manager concurrence.

Table 4: Project Team and Roles

| Staff Member | Role | Comment |
|-----------------------|---------------------------|---------|
| Jonathan R. Thorn | Project Manager | NA |
| Ryan P. Kelly | Sample Preparation | NA |
| Stephanie A. Schultz | LC-MS/MS Analysis | NA |
| Matt D. Schumitz | Sample Custody | NA |
| Carla R. Devine | Quality Control Officer | NA |
| Zachary J. Willenberg | Quality Assurance Officer | NA |

4.2 COMMUNICATION

A kick-off meeting will be held to discuss project scope and goals.

5.0 SCHEDULE

The project schedule is presented in Table 5.

Table 5. Schedule of Laboratory Activities

| Activity: | Start Date: | End Date: | TAT (days): | Comment: |
|------------------------|-------------|------------|-------------|----------|
| Sample Receipt | 10/01/2020 | 10/01/2020 | 0 | NA |
| Sample Preparation | 10/01/2020 | 10/12/2020 | 11 | NA |
| Instrument Analysis | 10/12/2020 | 10/23/2020 | 11 | NA |
| Quality Control Review | 10/23/2020 | 10/27/2020 | 4 | NA |



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WORK/QUALITY ASSURANCE PROJECT PLAN

| Activity: | Start Date: | End Date: | TAT (days): | Comment: |
|--------------------------|-------------|------------|----------------|----------|
| Quality Assurance Review | 10/27/2020 | 10/29/2020 | 2 | NA |

6.0 BUDGET

The labor budget for the analytical task is presented in Table 6.

Table 6. Labor Budget (Laboratory Analytical Task)

| Labor Activity: | Hours/ Batch: | Batches: | Total Hours: | Comment: |
|--------------------------|------------------|----------|-----------------|----------|
| Sample Receipt | 4 | 3 | 12 | NA |
| Sample Preparation | 9 | 3 | 27 | NA |
| Instrument Analysis | 10 | 3 | 30 | NA |
| Quality Control Review | 3 | 3 | 9 | NA |
| Quality Assurance Review | 1 | 3 | 3 | NA |

7.0 STAFF DEVELOPMENT

None anticipated.



WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 1: Target Samples

Shipment: SHP-201005-02
Status: Pending
Description: Site 10 SI
Range: G1071-G1072
Comment: NA

| No: | BDO Id: | Client Sample ID: | Collection Date: | Matrix: | Storage Facility: | Location: | No: | Comments: |
|-----|---------|------------------------|--------------------|---------|-------------------|-----------|-----|-----------|
| 1 | G1071 | CBD-AOA-EB01-100220-SO | 10/02/2020 2:10 pm | AQ | R0119 | (NA) | | |
| 2 | G1072 | CBD-AOA-FB01-100220 | 10/02/2020 2:00 pm | AQ | R0119 | (NA) | | |

Shipment: SHP-201012-02
Status: Pending
Description: Site 10
Range: G1524-G1525
Comment: NA

| No: | BDO Id: | Client Sample ID: | Collection Date: | Matrix: | Storage Facility: | Location: | No: | Comments: |
|-----|---------|------------------------|--------------------|---------|-------------------|-----------|-----|-----------|
| 1 | G1524 | CBD-AOA-FB02-100920 | 10/09/2020 1:00 pm | AQ | R0119 | (NA) | | |
| 2 | G1525 | CBD-AOA-EB02-100920-SO | 10/09/2020 1:10 pm | AQ | R0119 | (NA) | | |

Shipment: SHP-201014-03
Status: Pending
Description: Site 10 SI
Range: G1644-G1668
Comment: NA

| No: | BDO Id: | Client Sample ID: | Collection Date: | Matrix: | Storage Facility: | Location: | No: | Comments: |
|-----|---------|------------------------|---------------------|---------|-------------------|-----------|-----|-----------|
| 1 | G1644 | CBD-AOA-SW07-1020 | 10/13/2020 10:00 am | SW | R0119 | (NA) | | |
| 2 | G1645 | CBD-AOA-SW05-1020 | 10/13/2020 10:20 am | SW | R0119 | (NA) | | |
| 3 | G1646 | CBD-AOA-SW03-1020 | 10/13/2020 10:35 am | SW | R0119 | (NA) | | |
| 4 | G1647 | CBD-AOA-SW04-1020 | 10/13/2020 10:40 am | SW | R0119 | (NA) | | |
| 5 | G1651 | CBD-AOA-SW02-1020 | 10/13/2020 11:30 am | SW | R0119 | (NA) | | |
| 6 | G1652 | CBD-AOA-SW02P-1020 | 10/13/2020 11:35 am | SW | R0119 | (NA) | | |
| 7 | G1654 | CBD-AOA-SW01-1020 | 10/13/2020 12:00 pm | SW | R0119 | (NA) | | |
| 8 | G1655 | CBD-AOA-FB03-101320 | 10/13/2020 12:20 pm | AQ | R0119 | (NA) | | |
| 9 | G1656 | CBD-AOA-EB01-101320-SW | 10/13/2020 12:25 pm | AQ | R0119 | (NA) | | |
| 10 | G1657 | CBD-AOA-EB01-101320-SD | 10/13/2020 12:30 pm | AQ | R0119 | (NA) | | |
| 11 | G1658 | CBD-AOA-SW08-1020 | 10/13/2020 1:00 pm | SW | R0119 | (NA) | | |
| 12 | G1661 | CBD-AOA-SW06-1020 | 10/13/2020 1:25 pm | SW | R0119 | (NA) | | |
| 13 | G1663 | CBD-AOA-SW11-1020 | 10/13/2020 2:00 pm | SW | R0119 | (NA) | | |
| 14 | G1664 | CBD-AOA-SW11P-1020 | 10/13/2020 2:05 pm | SW | R0119 | (NA) | | |
| 15 | G1665 | CBD-AOA-SW10-1020 | 10/13/2020 2:10 pm | SW | R0119 | (NA) | | |
| 16 | G1666 | CBD-AOA-SW10-1020-MS | 10/13/2020 2:10 pm | SW | R0119 | (NA) | | |



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WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-201014-03
Status: Pending
Description: Site 10 SI
Range: G1644-G1668
Comment: NA

| No: | BDO Id: | Client Sample ID: | Collection Date: | Matrix: | Storage Facility: | Location: | No: | Comments: |
|-----|---------|----------------------|--------------------|---------|-------------------|-----------|-----|-----------|
| 17 | G1667 | CBD-AOA-SW10-1020-SD | 10/13/2020 2:10 pm | SW | R0119 (NA) | | | |
| 18 | G1668 | CBD-AOA-SW09-1020 | 10/13/2020 2:25 pm | SW | R0119 (NA) | | | |

Shipment: SHP-201016-02
Status: Pending
Description: Site 10 SI
Range: G1696-G1702
Comment: NA

| No: | BDO Id: | Client Sample ID: | Collection Date: | Matrix: | Storage Facility: | Location: | No: | Comments: |
|-----|---------|--------------------|---------------------|---------|-------------------|-----------|-----|-----------|
| 1 | G1696 | CBD-HVG-GW10-1020 | 10/14/2020 3:15 pm | GW | R0119 (NA) | | | |
| 2 | G1697 | CBD-HVG-GW09-1020 | 10/14/2020 3:30 pm | GW | R0119 (NA) | | | |
| 3 | G1698 | CBD-EB01-101420-GW | 10/14/2020 3:40 pm | AQ | R0119 (NA) | | | |
| 4 | G1699 | CBD-AOA-MW10-1020 | 10/15/2020 10:25 am | GW | R0119 (NA) | | | |
| 5 | G1700 | CBD-BKG-MW03-1020 | 10/15/2020 2:00 pm | GW | R0119 (NA) | | | |
| 6 | G1701 | CBD-SO4-MW01-1020 | 10/15/2020 3:25 pm | GW | R0119 (NA) | | | |
| 7 | G1702 | CBD-SO4-MW01P-1020 | 10/15/2020 3:30 pm | GW | R0119 (NA) | | | |

Shipment: SHP-201019-01
Status: Pending
Description: Site 10 SI
Range: G1707-G1709
Comment: NA

| No: | BDO Id: | Client Sample ID: | Collection Date: | Matrix: | Storage Facility: | Location: | No: | Comments: |
|-----|---------|-------------------|---------------------|---------|-------------------|-----------|-----|-----------|
| 1 | G1707 | CBD-AOA-MW15-1020 | 10/16/2020 10:40 am | GW | R0119 (NA) | | | |
| 2 | G1708 | CBD-AOA-MW16-1020 | 10/16/2020 12:05 pm | GW | R0119 (NA) | | | MS/MSD |
| 3 | G1709 | CBD-FB04-101620 | 10/16/2020 12:10 pm | GW | R0119 (NA) | | | |

Shipment: SHP-201020-04
Status: Pending
Description: Site 10 SI
Range: G1765-G1775
Comment: NA

| No: | BDO Id: | Client Sample ID: | Collection Date: | Matrix: | Storage Facility: | Location: | No: | Comments: |
|-----|---------|--------------------|---------------------|---------|-------------------|-----------|-----|-----------|
| 1 | G1765 | CBD-AOA-MW04-1020 | 10/19/2020 10:20 am | GW | R0119 (NA) | | | |
| 2 | G1766 | CBD-AOA-MW01-1020 | 10/19/2020 10:35 am | GW | R0119 (NA) | | | |
| 3 | G1767 | CBD-AOA-MW01P-1020 | 10/19/2020 10:40 am | GW | R0119 (NA) | | | |
| 4 | G1768 | CBD-AOA-MW03-1020 | 10/19/2020 11:35 am | GW | R0119 (NA) | | | |



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WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-201020-04
Status: Pending
Description: Site 10 SI
Range: G1765-G1775
Comment: NA

| No: | BDO Id: | Client Sample ID: | Collection Date: | Matrix: | Storage Facility: | Location: | No: | Comments: |
|-----|---------|------------------------|---------------------|---------|-------------------|-----------|-----|-----------|
| 5 | G1769 | CBD-AOA-MW08-1020 | 10/19/2020 12:55 pm | GW | R0119 | (NA) | | |
| 6 | G1770 | CBD-AOA-MW08-1020-MS | 10/19/2020 12:55 pm | GW | R0119 | (NA) | | |
| 7 | G1771 | CBD-AOA-MW08-1020-SD | 10/19/2020 12:55 pm | GW | R0119 | (NA) | | |
| 8 | G1772 | CBD-AOA-MW02-1020 | 10/19/2020 1:10 pm | GW | R0119 | (NA) | | |
| 9 | G1773 | CBD-AOA-MW18-1020 | 10/19/2020 2:35 pm | GW | R0119 | (NA) | | |
| 10 | G1774 | CBD-AOA-EB01-101920-GW | 10/19/2020 4:00 pm | AQ | R0119 | (NA) | | |
| 11 | G1775 | CBD-SO3-MW01-1020 | 10/19/2020 3:20 pm | GW | R0119 | (NA) | | |

Shipment: SHP-201022-01
Status: Pending
Description: Site 10 SI
Range: G1794-G1801
Comment: NA

| No: | BDO Id: | Client Sample ID: | Collection Date: | Matrix: | Storage Facility: | Location: | No: | Comments: |
|-----|---------|------------------------|---------------------|---------|-------------------|-----------|-----|--------------------------------|
| 1 | G1794 | CBD-AOA-MW07-1020 | 10/20/2020 3:50 pm | GW | R0118 | (NA) | | |
| 2 | G1795 | CBD-AOA-MW17-1020 | 10/20/2020 3:45 pm | GW | R0118 | (NA) | | |
| 3 | G1796 | CBD-AOA-MW19-1020 | 10/20/2020 1:45 pm | GW | R0118 | (NA) | | |
| 4 | G1797 | CBD-AOA-FB05-102020 | 10/20/2020 12:40 pm | AQ | R0118 | (NA) | | Field Blank - GW this week |
| 5 | G1798 | CBD-AOA-EB01-102020-GW | 10/20/2020 4:20 pm | AQ | R0118 | (NA) | | Equipment Blank - monsoon pump |
| 6 | G1799 | CBD-BKG-MW01-1020 | 10/20/2020 2:20 pm | GW | R0118 | (NA) | | |
| 7 | G1800 | CBD-BKG-MW02-1020 | 10/20/2020 3:25 pm | GW | R0118 | (NA) | | |
| 8 | G1801 | CBD-SO3-MW02-1020 | 10/20/2020 12:00 pm | GW | R0118 | (NA) | | |

Shipment: SHP-201022-02
Status: Pending
Description: Site 10 SI
Range: G1802-G1804
Comment: NA

| No: | BDO Id: | Client Sample ID: | Collection Date: | Matrix: | Storage Facility: | Location: | No: | Comments: |
|-----|---------|------------------------|---------------------|---------|-------------------|-----------|-----|---------------------------|
| 1 | G1802 | CBD-AOA-MW09-1020 | 10/21/2020 9:35 am | GW | R0119 | (NA) | | |
| 2 | G1803 | CBD-AOA-MW05-1020 | 10/21/2020 10:25 am | GW | R0119 | (NA) | | |
| 3 | G1804 | CBD-AOA-EB01-102120-GW | 10/21/2020 10:35 am | AQ | R0119 | (NA) | | Equipment Blank - monsoon |



WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-201029-03
Status: Pending
Description: Site 10 SI
Range: G2203-G2212
Comment: NA

| No: | BDO Id: | Client Sample ID: | Collection Date: | Matrix: | Storage Facility: | Location: | No: | Comments: |
|-----|---------|------------------------|---------------------|---------|-------------------|-----------|-----|-----------|
| 1 | G2203 | CBD-AOA-MW06-1020 | 10/27/2020 10:00 am | GW | R0119 | (NA) | | |
| 2 | G2204 | CBD-AOA-EB01-102720-GW | 10/27/2020 10:10 am | AQ | R0119 | (NA) | | |
| 3 | G2205 | CBD-AOA-MW12-1020 | 10/28/2020 1:45 pm | GW | R0119 | (NA) | | |
| 4 | G2206 | CBD-AOA-MW11-1020 | 10/28/2020 3:30 pm | GW | R0119 | (NA) | | |
| 5 | G2207 | CBD-AOA-MW11P-1020 | 10/28/2020 3:35 pm | GW | R0119 | (NA) | | |
| 6 | G2208 | CBD-AOA-FB01-102820 | 10/28/2020 3:55 pm | AQ | R0119 | (NA) | | |
| 7 | G2209 | CBD-AOA-EB01-102820-GW | 10/28/2020 4:40 pm | AQ | R0119 | (NA) | | |
| 8 | G2210 | CBD-AOA-MW14-1020 | 10/28/2020 4:35 pm | GW | R0119 | (NA) | | |
| 9 | G2211 | CBD-AOA-MW13-1020 | 10/28/2020 5:10 pm | GW | R0119 | (NA) | | |
| 10 | G2212 | CBD-AOA-IW01-102820 | 10/28/2020 5:30 pm | AQ | R0119 | (NA) | | |



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

| | |
|--------------------------------|---|
| Project Test Code Name: | Master_369B |
| SOP Reference: | 5-369 - Analysis of Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS) |
| Description: | PFAS by DoD QSM 5.3 Table B-15 |
| Matrix: | L - Liquid Samples, like water or sea water, prepared and analyzed under the same class of detection limits. |
| Detection Limit Study: | 5-369 |
| Instrument: | LC-MS/MS |
| MQO Criteria | Universal_LC |
| Standard Report: | Standard Result Report |

| Method Specific Reporting | | Holding Times (days) | Data Flags |
|------------------------------|-----------|--------------------------------------|--------------------------------------|
| Result Units: | ng/L | Unit Conversion: (none) | Sample: 14 DL_Flag: U |
| Weight Basis: | LIQUID | Result Format: Fixed Digits | Frozen: 14 RL_Flag: J |
| Standard Basis: | SIS | # of Figures/Digits: 2 | Extract: 28 PB_Flag: B |
| Oil Weight Basis: | No | Oil Weight Source: Oil Weight | DIL_Flag: D |
| U-Value Substitution: | U-Flag=MD | Histograms: No | HT_Flag: T |
| ECD_Reporting: | No | | |

| No: | Analyte: | Report Name: | Type | RIS | SIS | Hidden: | Graph: |
|-----|---|--------------|------|-----|--------------|---------|--------|
| 1 | Perfluoro-n-hexanoic acid | PFHxA | T | | 13C5-PFHxA | No | No |
| 2 | Perfluoro-n-heptanoic Acid | PFHpA | T | | 13C4-PFHpA | No | No |
| 3 | Perfluoro-n-octanoic Acid | PFOA | T | | 13C8-PFOA | No | No |
| 4 | Perfluorononanoic Acid | PFNA | T | | 13C9-PFNA | No | No |
| 5 | Perfluoro-n-decanoic Acid | PFDA | T | | 13C6-PFDA | No | No |
| 6 | Perfluoro-n-undecanoic acid | PFUnA | T | | 13C7-PFUnA | No | No |
| 7 | Perfluoro-n-dodecanoic acid | PFDoA | T | | 13C2-PFDoA | No | No |
| 8 | Perfluoro-n-tridecanoic acid | PFTTrDA | T | | 13C2-PFTeDA | No | No |
| 9 | Perfluoro-n-tetradecanoic acid | PFTeDA | T | | 13C2-PFTeDA | No | No |
| 10 | N-methylperfluoro-1-octanesulfonamidoacetic acid | NMeFOSAA | T | | d3-MeFOSAA | No | No |
| 11 | N-ethylperfluoro-octanesulfonamidoacetic acid | NEtFOSAA | T | | d5-EtFOSAA | No | No |
| 12 | Perfluoro-1-butanefulfonate | PFBS | T | | 13C3-PFBS | No | No |
| 13 | Perfluoro-1-hexanesulfonate | PFHxS | T | | 13C3-PFHxS | No | No |
| 14 | Perfluoro-1-octanesulfonate | PFOS | T | | 13C8-PFOS | No | No |
| 15 | Hexafluoropropylene oxide dimer acid | HFPO-DA | T | | 13C3-HFPO-DA | No | No |
| 16 | Adona | Adona | T | | 13C3-HFPO-DA | No | No |
| 17 | 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | 11Cl-PF3OUdS | T | | 13C3-HFPO-DA | No | No |



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_369B

| No: | Analyte: | Report Name: | Type | RIS | SIS | Hidden: | Graph: |
|-----|--|--------------|------|-----------|--------------|---------|--------|
| 18 | 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | 9Cl-PF3ONS | T | | 13C3-HFPO-DA | No | No |
| 1 | 13C5-PFHxA | 13C5-PFHxA | SIS | 13C2-PFOA | | No | No |
| 2 | 13C4-PFHpA | 13C4-PFHpA | SIS | 13C2-PFOA | | No | No |
| 3 | 13C8-PFOA | 13C8-PFOA | SIS | 13C2-PFOA | | No | No |
| 4 | 13C9-PFNA | 13C9-PFNA | SIS | 13C2-PFOA | | No | No |
| 5 | 13C6-PFDA | 13C6-PFDA | SIS | 13C2-PFDA | | No | No |
| 6 | 13C7-PFUnA | 13C7-PFUnA | SIS | 13C2-PFDA | | No | No |
| 7 | 13C2-PFDoA | 13C2-PFDoA | SIS | 13C2-PFDA | | No | No |
| 8 | 13C2-PFTeDA | 13C2-PFTeDA | SIS | 13C2-PFDA | | No | No |
| 9 | d3-MeFOSAA | d3-MeFOSAA | SIS | 13C4-PFOS | | No | No |
| 10 | d5-EtFOSAA | d5-EtFOSAA | SIS | 13C4-PFOS | | No | No |
| 11 | 13C3-PFBS | 13C3-PFBS | SIS | 13C4-PFOS | | No | No |
| 12 | 13C3-PFHxS | 13C3-PFHxS | SIS | 13C4-PFOS | | No | No |
| 13 | 13C8-PFOS | 13C8-PFOS | SIS | 13C4-PFOS | | No | No |
| 14 | 13C3-HFPO-DA | 13C3-HFPO-DA | SIS | 13C2-PFOA | | No | No |

Total Analytes: 32

Subtract Peaks:

None

Sum Peaks:

None



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_369B

ICAL Acceptance Criteria:

| Curve Fit: | Limit Mean(%): | Mean Qual: | Limit Ind.: | Ind. Qual: | Min Points: | Points Qual: | Comments: |
|------------|-------------------|---------------|----------------|---------------|----------------|-----------------|------------------------------|
| Linear | NA | NA | 0.99 | N | 5 | N | y = Bx + C |
| Quadratic | NA | NA | 0.99 | N | 6 | N | y = Ax ² + Bx + C |

Continuing Calibration Verification Criteria:

CCV Name: 5-369

| Frequency Hrs: | Mean PD(%): | Individual PD(%): | RIS/SIS RT Window (min): | Area Limit Low(%): | Area Limit High(%): | Comment: |
|-------------------|----------------|----------------------|-----------------------------|-----------------------|------------------------|----------|
| 12 (N) | 30 (N) | 30 (N) | 0.04 (N) | -50 | 100 (N) | NA |

Independent Calibration Verification:

ICC Name: 5-369

| Mean PD Limit(%): | Ind. PD Limit(%): | RIS/SIS Window Limit (Secs): | Area Limit High(%): | Area Limit Low(%): | Comment: |
|----------------------|----------------------|---------------------------------|------------------------|-----------------------|----------|
| 30 (N) | 30 (N) | 0.04 (N) | -50 | 100 (N) | NA |

Mass Discrimination Criteria:

None

Degradation Check Criteria:

None



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

| MQO Application: <i>Universal_LC</i> | | | |
|--|---|--------------|--|
| MQO: | Acceptance Criteria: | Qual: | Corrective Action: |
| Procedural Blank | Samples must be greater than five times the blank concentration (>5xPB). | B | Review with Project Manager; re-analyze or justify results in project records. |
| PB Measurement Quality Objective | Organic results in the Procedural Blank are less than 1/2 times the LOQ (<1/2xLOQ) | N | Review with Project Manager; re-analyze or justify results in project records. |
| Laboratory Control Sample | Recovery values 70-130%. | N | Review with project manager; re-analyze or justify reporting the results in project records. |
| Matrix Spike / Matrix Spike Duplicate Recovery | Organics 70-130%. Analyte concentration in MS/MSD must be greater than five times reported background concentration. | N | Review with Project Manager; re-analyze or justify reporting results in the project records. |
| | Organics Results in the Target is less than 5 times the Original | n | |
| Matrix Spike/Spike Duplicate Precision | Organics results less than 30% Relative Percent Difference (RPD). Analyte concentration in MS/MSD must be greater than five times reported background concentration. | N | Review with Project Manager; re-analyze or justify reporting results in the project records. |
| | Organics Results in the Target is less than 5 times the Original | n | |
| Standard Reference Material Accuracy | Organics Percent Difference less than 30% from a range of certified values on average. Analyte concentration must be greater than five times the Method Detection Limit (>5xMDL). | N | Review with Project Manager; re-analyze or justify reporting results in the project records. |
| | Organics Results in the Target is less than 5 times the MDL | n | |
| Analytical Duplicate Precision | Organics results less than 30% Relative Percent Difference (RPD). Analyte concentration must be > 5x MDL. | N | Review with Project Manager; re-analyze or justify reporting results in the project records. |
| | Organics Results in the Original is less than 5 times the MDL | n | |



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

| MQO Application: | | <i>Universal_LC</i> | |
|--|---|---------------------|--|
| MQO: | Acceptance Criteria: | Qual: | Corrective Action: |
| Analytical Triplicate Precision | Organics results less than 30% Relative Standard Deviation (RSD). Analyte concentration must be > 5x MDL. | N | Review with Project Manager; re-analyze or justify reporting results in the project records. |
| | Organics Results in the Original is less than 5 times the MDL | n | |
| Surrogate Compound Recovery | Recovery results between 50% and 150%. | N | Review with Project Manager; re-analyze or justify reporting results in the project records. |
| Control Oil | RPD < 30% for at least 90% of analytes | N | Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented. |
| Instrument Calibration | 5-369-8: R-squared greater than or equal to 0.990 | | Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented. |
| Independent Calibration Check Solution | 5-369-8: Individual PD less than or equal to 30%. Mean Percent Difference less than or equal to 30%. | N | Review with Project Manager; re-analyze or justify in project records. |
| Continuing Calibration Verification | 5-369-8: Individual PD less than or equal to 30%. Mean Percent Difference less than or equal to 30%. | N | Review with Project Manager; re-analyze or justify in project records. |

ShpNo SHP-201014-03

It can be done

Battelle Project No: 100142218

Sample Receipt Form

Approved: Authorized:

Project Number: _____ Client: Jacobs
 Received by: Schumitz, Matt Date/Time Received: Wednesday, October 14, 2020 10:00 AM
 No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Commercial Carrier Tracking Number: Fed Ex
 COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

| Cntr | Type | Tracking No. | Seal | Seal | Container | Therm. | Temp C | Smgs |
|--------|--------|----------------|---------------|--------|-----------|---------|--------|------|
| 1 of 1 | Cooler | 7716 6398 3997 | Custody Seals | Intact | Intact | Therm_2 | 1.0 | 25 |

Samples

Sample Labels: Sample labels agree with COC forms
 Discrepancies (see Sample Custody Corrective Action Form)

Container Seals: Tape Custody Seals Other Seals (See sample Log)
 Seals intact for each shipping container
 Seals broken (See sample log for impacted samples)

Condition of Samples: Sample containers intact
 Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

Samples Containers:
 Samples returned in PC-grade jars: Yes No Unknown /Lot No.: Unknown

Storage Location: Custody: Refrigerator - R0119 (NA) BDO IDs Assigned: G1644 - G1668

Samples logged in by: Schumitz, Matt Date/Time: 10/14/2020 10:00 AM

Approved By: _____ Approved On: _____

Authorized By: _____ Authorized On: _____



It can be done

ShpNo SHP-201014-03

Battelle Project No: 100142218

Sample Receipt Form Details

Approved: Authorized

Project Number: _____ Client: Jacobs

Received by: Schumitz, Matt Date/Time Received: Wednesday, October 14, 2020 10:00 AM

No. of Shipping Containers: 1

| BDO Id: | Client Sample ID: | Collection Date: | Login Date: | Ctrs: | Matrix: | Temp: | pH: | TRC: | VOC: | Stored In: | Loc: | No: | Comments: |
|---------|------------------------|------------------|----------------|-------|---------|-------|-----|------|------|------------|------|-----|-----------|
| G1644 | CBD-AOA-SW07-1020 | 10/13/20 10:00 | 10/14/20 11:05 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1645 | CBD-AOA-SW05-1020 | 10/13/20 10:20 | 10/14/20 11:05 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1646 | CBD-AOA-SW03-1020 | 10/13/20 10:35 | 10/14/20 11:06 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1647 | CBD-AOA-SW04-1020 | 10/13/20 10:40 | 10/14/20 11:06 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1648 | CBD-AOA-SD04-000H | 10/13/20 10:45 | 10/14/20 11:06 | 1 | SD | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1649 | CBD-AOA-SD04-000H-MS | 10/13/20 10:45 | 10/14/20 11:08 | 1 | SD | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1650 | CBD-AOA-SD04-000H-SD | 10/13/20 10:45 | 10/14/20 11:08 | 1 | SD | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1651 | CBD-AOA-SW02-1020 | 10/13/20 11:30 | 10/14/20 11:09 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1652 | CBD-AOA-SW02P-1020 | 10/13/20 11:35 | 10/14/20 11:09 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1653 | CBD-AOA-SD02-000H | 10/13/20 11:40 | 10/14/20 11:09 | 1 | SD | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1654 | CBD-AOA-SW01-1020 | 10/13/20 12:00 | 10/14/20 11:10 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1655 | CBD-AOA-FB03-101320 | 10/13/20 12:20 | 10/14/20 11:11 | 2 | AQ | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1656 | CBD-AOA-EB01-101320-SW | 10/13/20 12:25 | 10/14/20 11:14 | 2 | AQ | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1657 | CBD-AOA-EB01-101320-SD | 10/13/20 12:30 | 10/14/20 11:14 | 2 | AQ | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1658 | CBD-AOA-SW08-1020 | 10/13/20 13:00 | 10/14/20 11:15 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1659 | CBD-AOA-SD08-000H | 10/13/20 13:10 | 10/14/20 11:15 | 1 | SD | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1660 | CBD-AOA-SD08P-000H | 10/13/20 13:15 | 10/14/20 11:15 | 1 | SD | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1661 | CBD-AOA-SW06-1020 | 10/13/20 13:25 | 10/14/20 11:16 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1662 | CBD-AOA-SD06-000H | 10/13/20 13:30 | 10/14/20 11:17 | 1 | SD | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1663 | CBD-AOA-SW11-1020 | 10/13/20 14:00 | 10/14/20 11:17 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1664 | CBD-AOA-SW11P-1020 | 10/13/20 14:05 | 10/14/20 11:18 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1665 | CBD-AOA-SW10-1020 | 10/13/20 14:10 | 10/14/20 11:18 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1666 | CBD-AOA-SW10-1020-MS | 10/13/20 14:10 | 10/14/20 11:18 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1667 | CBD-AOA-SW10-1020-SD | 10/13/20 14:10 | 10/14/20 11:18 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |
| G1668 | CBD-AOA-SW09-1020 | 10/13/20 14:25 | 10/14/20 11:19 | 2 | SW | 1 | NA | NA | NA | R0119 (NA) | | | |

Total Samples: 25



Chain-of-Custody

| Client Contact Information Mike Zamboni Michael.Zamboni@jacobs.com CH2M/Jacobs | | Project Manager: — Sampler Information (print name): Caitlin Dronfield Phone: 703 376 5097 Email: caitlin.dronfield@jacobs.com Turnaround Time (TAT) Requested: com | | Sampling Site: Site 10 (FPA) Site Information: NRL CBD | | | | | | | | | | | | | | | | |
|--|--|---|-------------|---|--------------------------|--|--------------|-------------------|-----------|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|
| Project Name: Site 10 SI Project No.: — | | Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/> Time Zone: ET | | COC # Page# Page 1 of 3 | | | | | | | | | | | | | | | | |
| Sample Identification | | Sample Date | Sample Time | Sample Type | Matrix | Total # of Cont. | Preservative | Analysis | Retention | Disposition | Disposition | Disposition | Disposition | Disposition | Disposition | Disposition | Disposition | Disposition | Disposition | |
| CBD-ADA-SW07-10ZD | | 10/13/20 | 1000 | Grab | SW | 2 | X | | | | | | | | | | | | | |
| CBD-ADA-SW05-10ZD | | | 1020 | | SW | 2 | X | | | | | | | | | | | | | |
| CBD-ADA-SW03-10ZD | | | 1035 | | SW | 2 | X | | | | | | | | | | | | | |
| CBD-ADA-SW04-10ZD | | | 1040 | | SW | 2 | X | | | | | | | | | | | | | |
| CBD-ADA-SD04-000H | | | 1045 | | SD | 1 | X | | | | | | | | | | | | | |
| CBD-ADA-SD04-000H-MS | | | 1045 | | SD | 1 | X | | | | | | | | | | | | | QA/QC MS/MSD |
| CBD-ADA-SD04-000H-SD | | | 1045 | | SD | 1 | X | | | | | | | | | | | | | QA/QC MS/MSD |
| CBD-ADA-SW02-10ZD | | | 1130 | | SW | 2 | X | | | | | | | | | | | | | |
| CBD-ADA-SW02P-10ZD | | | 1135 | | SW | 2 | X | | | | | | | | | | | | | |
| CBD-ADA-SD02-000H | | | 1140 | | SD | 1 | X | | | | | | | | | | | | | Duplicate |
| CBD-ADA-SW01-10ZD | | | 1200 | | SW | 2 | X | | | | | | | | | | | | | |
| CBD-ADA-FB03-101320 | | | 1220 | | AQ | 2 | X | | | | | | | | | | | | | Field Blank Week 3 |
| Receipt Temperature: (°C) | | Samples Intact: Yes - No | | | Samples on Ice: Yes - No | | | Receipt Comments: | | | | | | | | | | | | |
| Relinquished by (Print/Sign): <i>Caitlin Dronfield</i> | | Company: CH2M/Jacobs | | Date/Time: 10/13/20 1700 | | Received by (Print/Sign): <i>[Signature]</i> | | Company: ISNO | | Date/Time: 10-14-20 1000 | | | | | | | | | | |
| Relinquished by (Print/Sign): | | Company: | | Date/Time: | | Received by (Print/Sign): | | Company: | | Date/Time: | | | | | | | | | | |
| Relinquished by (Print/Sign): | | Company: | | Date/Time: | | Received by (Print/Sign): | | Company: | | Date/Time: | | | | | | | | | | |
| Comments: | | | | | | | | | | | | | | | | | | | | |



Chain-of-Custody

| | | | | | | | | | | | | |
|---|--|--|-------------|--------------------------------|--------|---|---|---------------------------------|--|--------------------------------|-------|----------------------|
| Client Contact Information | | Project Manager: _____ | | | | Sampling Site: <u>See page 1</u> | | Site Information: <u>page 1</u> | | | | |
| Phone: _____ Email: _____ | | Sampler Information (print name): _____ | | | | Preservative: <u>None</u> | | COC # _____ | | | | |
| | | Turnaround Time (TAT) Requested: _____ | | | | | | | | | | |
| Project Name: _____ | | Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/> | | | | Analysis: <u>PEAS</u> | | Page# <u>Page 2 of 3</u> | | | | |
| Project No.: _____ | | Time Zone: <u>ET</u> | | | | | | | | | | |
| Sample Identification | | Sample Date | Sample Time | Sample Type | Matrix | Total # of Cont. | | | | | | |
| CBD-AAA-EB01-101320-SW | | 10/13/20 | Grab | 1225 | AQ | 2 | X | | | | 61656 | Equipment Blank - SW |
| CBD-AAA-EB01-101320-SD | | | | 1230 | AQ | 2 | X | | | | 57 | Equipment Blank - SD |
| CBD-AAA-SW08-1020 | | | | 1300 | SW | 2 | X | | | | 58 | |
| CBD-AAA-SD08-000H | | | | 1310 | SD | 1 | X | | | | 59 | |
| CBD-AAA-SD08P-000H | | | | 1315 | SD | 1 | X | | | | 60 | Duplicate |
| CBD-AAA-SW06-1020 | | | | 1325 | SW | 2 | X | | | | 61 | |
| CBD-AAA-SD06-000H | | | | 1330 | SD | 1 | X | | | | 62 | |
| CBD-AAA-SW11-1020 | | | | 1400 | SW | 2 | X | | | | 63 | |
| CBD-AAA-SW11P-1020 | | | | 1405 | SW | 2 | X | | | | 64 | Duplicate |
| CBD-AAA-SW10-1020 | | | | 1410 | SW | 2 | X | | | | 65 | |
| CBD-AAA-SW10-1020-MS | | | | 1410 | SW | 2 | X | | | | 66 | QA/QC MS/MSD |
| CBD-AAA-SW10-1020-SD | | | | 1410 | SW | 2 | X | | | | 67 | QA/QC MS/MSD |
| Receipt Temperature: (°C) | | Samples Intact: Yes - No | | | | Samples on Ice: Yes - No | | | | Receipt Comments: | | |
| Relinquished by (Print/Sign) <u>Caitlin Dranfield</u> | | Company <u>CH2M/JACOBS</u> | | Date/Time <u>10/13/20 1700</u> | | Received by (Print/Sign) <u>[Signature]</u> | | Company <u>BNO</u> | | Date/Time <u>10-14-20 1000</u> | | |
| Relinquished by (Print/Sign) | | Company | | Date/Time | | Received by (Print/Sign) | | Company | | Date/Time | | |
| Relinquished by (Print/Sign) | | Company | | Date/Time | | Received by (Print/Sign) | | Company | | Date/Time | | |
| Comments: | | | | | | | | | | | | |



Chain-of-Custody

| | | | | | | | | | | | | | |
|--|--|--|-------------|---------------------------------|-----------|--|------------------|--|-------|---------------------------------|--|-----------------------------|--|
| <u>Client Contact Information</u> | | Project Manager: <i>[Signature]</i> | | | | Sampling Site: <i>see page 1</i> | | Site Information: <i>page 1</i> | | | | | |
| Project Name: <i>522</i> Project No.: | | Sample Information (print name): Phone: Email: | | | | Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/> | | Preservative: <i>none</i> Analysis: <i>PFAS</i> | | | | COC # | |
| | | Time Zone: <i>ET</i> | | | | | | | | | | Page# <i>Page 3 of 3</i> | |
| <u>Sample Identification</u> | | Sample Date | Sample Time | Sample Type | Matrix | Total # of Cont. | X (Circled 2) | | G1668 | | | | |
| <i>LBD-AAA-SW09-1020</i> | | <i>10/13/20</i> | <i>1425</i> | <i>GAB</i> | <i>SW</i> | <i>2</i> | | | | | | | |
| Receipt Temperature: (°C) | | Samples Intact: Yes - No | | | | Samples on Ice: Yes - No | | | | Receipt Comments: | | | |
| Relinquished by (Print/Sign): <i>[Signature]</i> | | Company: <i>CH2M/Jacobs</i> | | Date/Time: <i>10/13/20 1700</i> | | Received by (Print/Sign): <i>[Signature]</i> | | Company: <i>BNO</i> | | Date/Time: <i>10.14.20 1000</i> | | | |
| Relinquished by (Print/Sign): | | Company: | | Date/Time: | | Received by (Print/Sign): | | Company: | | Date/Time: | | | |
| Relinquished by (Print/Sign): | | Company: | | Date/Time: | | Received by (Print/Sign): | | Company: | | Date/Time: | | | |
| Comments: | | | | | | | | | | | | | |

ORIGIN ID:BCBA (703) 376-5000
CAITLIN DRONFIELD
CAITLIN DRONFIELD
2411 DULLES CORNER PARK
SUITE 500
HERNDON, VA 20171
UNITED STATES US

SHIP DATE: 29SEP20
ACTWGT: 50.00 LB
CAD: 103931050/INET4280
DIMS: 16x24x18 IN

BILL THIRD PARTY

TO **ATTN: SAMPLE RECEIVING
BATELLE
141 LONGWATER DRIVE
SUITE 202
NORWELL MA 02061**

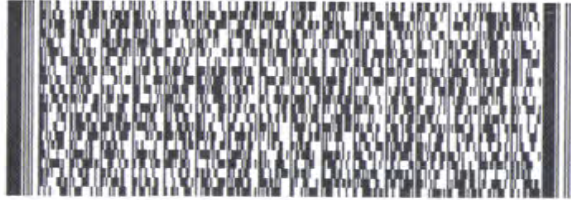
*Therm 2
1.00*

566J2/A27E17/68

(781) 681-5565
INV.
PO

REF: 708207 F1FK

DEPT.



J29298F1481W

TRK# 7716 6398 3997
0201

WED - 30 SEP 10:30A
PRIORITY OVERNIGHT

EM XPUA

02061
MA-US BOS



After printing this label:

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Data Tables



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID CBD-AOA-SW07-1020

Battelle ID G1644-FS1

Sample Type SA

Collection Date 10/13/2020

Extraction Date 11/04/2020

Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

| <i>Surrogate Recoveries (%)</i> | Recovery | Extract ID | Analysis Date |
|---------------------------------|-----------------|-------------------|----------------------|
| 13C5-PFHxA | 38 N | G1644-FS1(0) | 11/6/2020 |
| 13C4-PFHpA | 45 N | G1644-FS1(0) | 11/6/2020 |
| 13C8-PFOA | 78 | G1644-FS1(0) | 11/6/2020 |
| 13C9-PFNA | 104 D | G1644-FS1-D(7) | 11/9/2020 |
| 13C6-PFDA | 86 | G1644-FS1(0) | 11/6/2020 |
| 13C7-PFUnA | 103 | G1644-FS1(0) | 11/6/2020 |
| 13C2-PFDoA | 96 | G1644-FS1(0) | 11/6/2020 |
| 13C2-PFTeDA | 80 | G1644-FS1(0) | 11/6/2020 |
| d3-MeFOSAA | 93 D | G1644-FS1-D(7) | 11/9/2020 |
| d5-EtFOSAA | 97 D | G1644-FS1-D(7) | 11/9/2020 |
| 13C3-PFBS | 103 D | G1644-FS1-D(7) | 11/9/2020 |
| 13C3-PFHxS | 98 D | G1644-FS1-D(7) | 11/9/2020 |
| 13C8-PFOS | 94 D | G1644-FS1-D(7) | 11/9/2020 |
| 13C3-HFPO-DA | 65 | G1644-FS1(0) | 11/6/2020 |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID CBD-AOA-SW05-1020

Battelle ID G1645-FS1
 Sample Type SA
 Collection Date 10/13/2020
 Extraction Date 11/04/2020
 Analytical Instrument Sciex 6500+ (AE) LC/MS/MS
 % Moisture NA
 Matrix SW
 Sample Size 0.260
 Size Unit-Basis L

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|-------------|---------------|----------------|--------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 150 T | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.507 | 1.44 | 4.81 |
| PFHpA | 375-85-9 | 55.0 T | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.253 | 0.962 | 4.81 |
| PFOA | 335-67-1 | 113 T | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.491 | 1.44 | 4.81 |
| PFNA | 375-95-1 | 218 TD | G1645-FS1-D(3) | 5.000 | 11/9/2020 | 1.49 | 4.81 | 24.0 |
| PFDA | 335-76-2 | 4.58 JT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.137 | 0.481 | 4.81 |
| PFUnA | 2058-94-8 | 17.1 T | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.211 | 0.481 | 4.81 |
| PFDoA | 307-55-1 | 0.481 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.185 | 0.481 | 4.81 |
| PFTTrDA | 72629-94-8 | 0.481 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.148 | 0.481 | 4.81 |
| PFTeDA | 376-06-7 | 1.92 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.705 | 1.92 | 4.81 |
| NMeFOSAA | 2355-31-9 | 0.962 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.337 | 0.962 | 4.81 |
| NEtFOSAA | 2991-50-6 | 0.962 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.481 | 0.962 | 4.81 |
| PFBS | 375-73-5 | 19.5 T | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.138 | 0.481 | 4.81 |
| PFHxS | 355-46-4 | 309 TD | G1645-FS1-D(3) | 5.000 | 11/9/2020 | 0.538 | 1.92 | 24.0 |
| PFOS | 1763-23-1 | 1420 TD | G1645-FS1-D(7) | 31.250 | 11/9/2020 | 13.1 | 30.0 | 150 |
| HFPO-DA | 13252-13-6 | 0.481 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.238 | 0.481 | 4.81 |
| Adona | 919005-14-4 | 0.962 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.255 | 0.962 | 4.81 |
| 9Cl-PF3ONS | 756426-58-1 | 0.481 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.258 | 0.481 | 4.81 |
| 11Cl-PF3OUdS | 763051-92-9 | 0.962 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.222 | 0.962 | 4.81 |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID CBD-AOA-SW05-1020

Battelle ID G1645-FS1
 Sample Type SA
 Collection Date 10/13/2020
 Extraction Date 11/04/2020
 Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

| <i>Surrogate Recoveries (%)</i> | Recovery | Extract ID | Analysis Date |
|---------------------------------|-----------------|-------------------|----------------------|
| 13C5-PFHxA | 36 N | G1645-FS1(0) | 11/6/2020 |
| 13C4-PFHpA | 52 | G1645-FS1(0) | 11/6/2020 |
| 13C8-PFOA | 81 | G1645-FS1(0) | 11/6/2020 |
| 13C9-PFNA | 110 D | G1645-FS1-D(7) | 11/9/2020 |
| 13C6-PFDA | 92 | G1645-FS1(0) | 11/6/2020 |
| 13C7-PFUnA | 98 | G1645-FS1(0) | 11/6/2020 |
| 13C2-PFDoA | 89 | G1645-FS1(0) | 11/6/2020 |
| 13C2-PFTeDA | 75 | G1645-FS1(0) | 11/6/2020 |
| d3-MeFOSAA | 105 D | G1645-FS1-D(7) | 11/9/2020 |
| d5-EtFOSAA | 112 D | G1645-FS1-D(7) | 11/9/2020 |
| 13C3-PFBS | 97 D | G1645-FS1-D(7) | 11/9/2020 |
| 13C3-PFHxS | 105 D | G1645-FS1-D(7) | 11/9/2020 |
| 13C8-PFOS | 105 D | G1645-FS1-D(7) | 11/9/2020 |
| 13C3-HFPO-DA | 69 | G1645-FS1(0) | 11/6/2020 |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID: CBD-AOA-SW03-1020
 Battelle ID: G1646-FS1
 Sample Type: SA
 Collection Date: 10/13/2020
 Extraction Date: 11/04/2020
 Analytical Instrument: Sciex 6500+ (AE) LC/MS/MS
 % Moisture: NA
 Matrix: SW
 Sample Size: 0.260
 Size Unit-Basis: L

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|-------------|---------------|----------------|-------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 34.8 T | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.507 | 1.44 | 4.81 |
| PFHpA | 375-85-9 | 17.0 T | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.253 | 0.962 | 4.81 |
| PFOA | 335-67-1 | 71.6 T | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.491 | 1.44 | 4.81 |
| PFNA | 375-95-1 | 23.2 T | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.297 | 0.962 | 4.81 |
| PFDA | 335-76-2 | 0.374 JT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.137 | 0.481 | 4.81 |
| PFUnA | 2058-94-8 | 0.590 JT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.211 | 0.481 | 4.81 |
| PFDoA | 307-55-1 | 0.481 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.185 | 0.481 | 4.81 |
| PFTTrDA | 72629-94-8 | 0.481 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.148 | 0.481 | 4.81 |
| PFTeDA | 376-06-7 | 1.92 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.705 | 1.92 | 4.81 |
| NMeFOSAA | 2355-31-9 | 0.962 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.337 | 0.962 | 4.81 |
| NEtFOSAA | 2991-50-6 | 0.962 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.481 | 0.962 | 4.81 |
| PFBS | 375-73-5 | 6.74 T | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.138 | 0.481 | 4.81 |
| PFHxS | 355-46-4 | 139 TD | G1646-FS1-D(3) | 5.000 | 11/9/2020 | 0.538 | 1.92 | 24.0 |
| PFOS | 1763-23-1 | 167 TD | G1646-FS1-D(3) | 5.000 | 11/9/2020 | 2.10 | 4.81 | 24.0 |
| HFPO-DA | 13252-13-6 | 0.481 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.238 | 0.481 | 4.81 |
| Adona | 919005-14-4 | 0.962 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.255 | 0.962 | 4.81 |
| 9CI-PF3ONS | 756426-58-1 | 0.481 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.258 | 0.481 | 4.81 |
| 11Cl-PF3OUdS | 763051-92-9 | 0.962 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.222 | 0.962 | 4.81 |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID CBD-AOA-SW04-1020

Battelle ID G1647-FS1
 Sample Type SA
 Collection Date 10/13/2020
 Extraction Date 11/04/2020
 Analytical Instrument Sciex 6500+ (AE) LC/MS/MS
 % Moisture NA
 Matrix SW
 Sample Size 0.260
 Size Unit-Basis L

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|-------------|---------------|----------------|-------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 25.5 T | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.507 | 1.44 | 4.81 |
| PFHpA | 375-85-9 | 9.50 T | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.253 | 0.962 | 4.81 |
| PFOA | 335-67-1 | 23.6 T | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.491 | 1.44 | 4.81 |
| PFNA | 375-95-1 | 16.4 T | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.297 | 0.962 | 4.81 |
| PFDA | 335-76-2 | 0.481 UT | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.137 | 0.481 | 4.81 |
| PFUnA | 2058-94-8 | 0.523 JT | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.211 | 0.481 | 4.81 |
| PFDoA | 307-55-1 | 0.481 UT | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.185 | 0.481 | 4.81 |
| PFTrDA | 72629-94-8 | 0.481 UT | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.148 | 0.481 | 4.81 |
| PFTeDA | 376-06-7 | 1.92 UT | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.705 | 1.92 | 4.81 |
| NMeFOSAA | 2355-31-9 | 0.962 UT | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.337 | 0.962 | 4.81 |
| NEtFOSAA | 2991-50-6 | 0.962 UT | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.481 | 0.962 | 4.81 |
| PFBS | 375-73-5 | 5.24 T | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.138 | 0.481 | 4.81 |
| PFHxS | 355-46-4 | 101 T | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.108 | 0.385 | 4.81 |
| PFOS | 1763-23-1 | 154 TD | G1647-FS1-D(3) | 5.000 | 11/9/2020 | 2.10 | 4.81 | 24.0 |
| HFPO-DA | 13252-13-6 | 0.481 UT | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.238 | 0.481 | 4.81 |
| Adona | 919005-14-4 | 0.962 UT | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.255 | 0.962 | 4.81 |
| 9CI-PF3ONS | 756426-58-1 | 0.481 UT | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.258 | 0.481 | 4.81 |
| 11CI-PF3OUdS | 763051-92-9 | 0.962 UT | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.222 | 0.962 | 4.81 |



Project Client: CH2M
Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
Project No.: 100142218

Client ID CBD-AOA-SW04-1020

Battelle ID G1647-FS1
Sample Type SA
Collection Date 10/13/2020
Extraction Date 11/04/2020
Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

| <i>Surrogate Recoveries (%)</i> | Recovery | Extract ID | Analysis Date |
|---------------------------------|-----------------|-------------------|----------------------|
| 13C5-PFHxA | 36 N | G1647-FS1(0) | 11/6/2020 |
| 13C4-PFHpA | 47 N | G1647-FS1(0) | 11/6/2020 |
| 13C8-PFOA | 67 | G1647-FS1(0) | 11/6/2020 |
| 13C9-PFNA | 104 D | G1647-FS1-D(3) | 11/9/2020 |
| 13C6-PFDA | 84 | G1647-FS1(0) | 11/6/2020 |
| 13C7-PFUnA | 99 | G1647-FS1(0) | 11/6/2020 |
| 13C2-PFDoA | 86 | G1647-FS1(0) | 11/6/2020 |
| 13C2-PFTeDA | 61 | G1647-FS1(0) | 11/6/2020 |
| d3-MeFOSAA | 98 D | G1647-FS1-D(3) | 11/9/2020 |
| d5-EtFOSAA | 115 D | G1647-FS1-D(3) | 11/9/2020 |
| 13C3-PFBS | 82 D | G1647-FS1-D(3) | 11/9/2020 |
| 13C3-PFHxS | 92 D | G1647-FS1-D(3) | 11/9/2020 |
| 13C8-PFOS | 99 D | G1647-FS1-D(3) | 11/9/2020 |
| 13C3-HFPO-DA | 56 | G1647-FS1(0) | 11/6/2020 |



Project Client: CH2M
Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
Project No.: 100142218

Client ID CBD-AOA-SW02-1020

Battelle ID G1651-FS1
Sample Type SA
Collection Date 10/13/2020
Extraction Date 11/04/2020
Analytical Instrument Sciex 6500+ (AE) LC/MS/MS
% Moisture NA
Matrix SW
Sample Size 0.255
Size Unit-Basis L

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|-------------|---------------|--------------|-------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 11.0 T | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.517 | 1.47 | 4.90 |
| PFHpA | 375-85-9 | 4.37 JT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.258 | 0.980 | 4.90 |
| PFOA | 335-67-1 | 10.9 T | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.501 | 1.47 | 4.90 |
| PFNA | 375-95-1 | 4.72 JT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.303 | 0.980 | 4.90 |
| PFDA | 335-76-2 | 0.490 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.139 | 0.490 | 4.90 |
| PFUnA | 2058-94-8 | 1.17 JT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.215 | 0.490 | 4.90 |
| PFDoA | 307-55-1 | 0.490 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.188 | 0.490 | 4.90 |
| PFTTrDA | 72629-94-8 | 0.490 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.151 | 0.490 | 4.90 |
| PFTeDA | 376-06-7 | 1.96 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.719 | 1.96 | 4.90 |
| NMeFOSAA | 2355-31-9 | 0.980 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.343 | 0.980 | 4.90 |
| NEtFOSAA | 2991-50-6 | 0.980 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.490 | 0.980 | 4.90 |
| PFBS | 375-73-5 | 3.05 JT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.141 | 0.490 | 4.90 |
| PFHxS | 355-46-4 | 51.3 T | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.110 | 0.392 | 4.90 |
| PFOS | 1763-23-1 | 48.7 T | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.428 | 0.980 | 4.90 |
| HFPO-DA | 13252-13-6 | 0.490 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.243 | 0.490 | 4.90 |
| Adona | 919005-14-4 | 0.980 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.260 | 0.980 | 4.90 |
| 9Cl-PF3ONS | 756426-58-1 | 0.490 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.263 | 0.490 | 4.90 |
| 11Cl-PF3OUdS | 763051-92-9 | 0.980 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.226 | 0.980 | 4.90 |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID CBD-AOA-SW06-1020

Battelle ID G1661-FS1
 Sample Type SA
 Collection Date 10/13/2020
 Extraction Date 11/04/2020
 Analytical Instrument Sciex 6500+ (AE) LC/MS/MS
 % Moisture NA
 Matrix SW
 Sample Size 0.260
 Size Unit-Basis L

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|-------------|---------------|----------------|---------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 462 TD | G1661-FS1-D(3) | 5.000 | 11/9/2020 | 2.53 | 7.21 | 24.0 |
| PFHpA | 375-85-9 | 290 T | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.253 | 0.962 | 4.81 |
| PFOA | 335-67-1 | 380 TD | G1661-FS1-D(5) | 25.000 | 11/9/2020 | 12.3 | 36.1 | 120 |
| PFNA | 375-95-1 | 374 TD | G1661-FS1-D(3) | 5.000 | 11/9/2020 | 1.49 | 4.81 | 24.0 |
| PFDA | 335-76-2 | 40.6 T | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.137 | 0.481 | 4.81 |
| PFUnA | 2058-94-8 | 137 TD | G1661-FS1-D(3) | 5.000 | 11/9/2020 | 1.05 | 2.40 | 24.0 |
| PFDoA | 307-55-1 | 1.59 JT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.185 | 0.481 | 4.81 |
| PFTTrDA | 72629-94-8 | 13.5 T | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.148 | 0.481 | 4.81 |
| PFTeDA | 376-06-7 | 1.92 UT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.705 | 1.92 | 4.81 |
| NMeFOSAA | 2355-31-9 | 2.39 JT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.337 | 0.962 | 4.81 |
| NEtFOSAA | 2991-50-6 | 0.962 UT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.481 | 0.962 | 4.81 |
| PFBS | 375-73-5 | 46.0 T | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.138 | 0.481 | 4.81 |
| PFHxS | 355-46-4 | 1200 TD | G1661-FS1-D(5) | 25.000 | 11/9/2020 | 2.69 | 9.62 | 120 |
| PFOS | 1763-23-1 | 6210 TD | G1661-FS1-D(9) | 156.250 | 11/9/2020 | 65.7 | 150 | 751 |
| HFPO-DA | 13252-13-6 | 0.481 UT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.238 | 0.481 | 4.81 |
| Adona | 919005-14-4 | 0.962 UT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.255 | 0.962 | 4.81 |
| 9CI-PF3ONS | 756426-58-1 | 0.481 UT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.258 | 0.481 | 4.81 |
| 11CI-PF3OUdS | 763051-92-9 | 0.962 UT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.222 | 0.962 | 4.81 |



Project Client: CH2M
Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
Project No.: 100142218

Client ID CBD-AOA-SW06-1020

Battelle ID G1661-FS1
Sample Type SA
Collection Date 10/13/2020
Extraction Date 11/04/2020
Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

| <i>Surrogate Recoveries (%)</i> | Recovery | Extract ID | Analysis Date |
|--|-----------------|-------------------|----------------------|
| 13C5-PFHxA | 89 D | G1661-FS1-D(5) | 11/9/2020 |
| 13C4-PFHpA | 85 D | G1661-FS1-D(5) | 11/9/2020 |
| 13C8-PFOA | 97 D | G1661-FS1-D(5) | 11/9/2020 |
| 13C9-PFNA | 99 D | G1661-FS1-D(9) | 11/9/2020 |
| 13C6-PFDA | 92 | G1661-FS1(0) | 11/7/2020 |
| 13C7-PFUnA | 107 D | G1661-FS1-D(3) | 11/9/2020 |
| 13C2-PFDoA | 102 | G1661-FS1(0) | 11/7/2020 |
| 13C2-PFTeDA | 71 | G1661-FS1(0) | 11/7/2020 |
| d3-MeFOSAA | 83 D | G1661-FS1-D(9) | 11/9/2020 |
| d5-EtFOSAA | 95 D | G1661-FS1-D(9) | 11/9/2020 |
| 13C3-PFBS | 97 D | G1661-FS1-D(9) | 11/9/2020 |
| 13C3-PFHxS | 96 D | G1661-FS1-D(9) | 11/9/2020 |
| 13C8-PFOS | 97 D | G1661-FS1-D(9) | 11/9/2020 |
| 13C3-HFPO-DA | 69 D | G1661-FS1-D(5) | 11/9/2020 |



Project Client: CH2M
Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
Project No.: 100142218

Client ID CBD-AOA-SW09-1020

Battelle ID G1668-FS1
Sample Type SA
Collection Date 10/13/2020
Extraction Date 11/04/2020
Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

| <i>Surrogate Recoveries (%)</i> | Recovery | Extract ID | Analysis Date |
|---------------------------------|----------|----------------|---------------|
| 13C5-PFHxA | 66 D | G1668-FS1-D(3) | 11/9/2020 |
| 13C4-PFHpA | 78 D | G1668-FS1-D(3) | 11/9/2020 |
| 13C8-PFOA | 90 D | G1668-FS1-D(3) | 11/9/2020 |
| 13C9-PFNA | 98 D | G1668-FS1-D(5) | 11/9/2020 |
| 13C6-PFDA | 73 | G1668-FS1(0) | 11/7/2020 |
| 13C7-PFUnA | 96 D | G1668-FS1-D(3) | 11/9/2020 |
| 13C2-PFDoA | 36 N | G1668-FS1(0) | 11/7/2020 |
| 13C2-PFTeDA | 12 N | G1668-FS1(0) | 11/7/2020 |
| d3-MeFOSAA | 98 D | G1668-FS1-D(5) | 11/9/2020 |
| d5-EtFOSAA | 112 D | G1668-FS1-D(5) | 11/9/2020 |
| 13C3-PFBS | 94 D | G1668-FS1-D(5) | 11/9/2020 |
| 13C3-PFHxS | 100 D | G1668-FS1-D(5) | 11/9/2020 |
| 13C8-PFOS | 94 D | G1668-FS1-D(5) | 11/9/2020 |
| 13C3-HFPO-DA | 71 D | G1668-FS1-D(3) | 11/9/2020 |



It can be done

Project Client: CH2M

Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.: 100142218

Client ID LD80 IB

Battelle ID LD80 IB_11/05/2020

Sample Type IB

Collection Date NA

Extraction Date NA

Analysis Date 11/05/2020

Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

% Moisture NA

Matrix Water

Sample Size 0.250

Size Unit-Basis L

| Analyte | CAS No. | Result (ng/L) | DL | LOD | LOQ |
|--------------|-------------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 1.50 U | 0.527 | 1.50 | 5.00 |
| PFHpA | 375-85-9 | 1.00 U | 0.263 | 1.00 | 5.00 |
| PFOA | 335-67-1 | 1.50 U | 0.511 | 1.50 | 5.00 |
| PFNA | 375-95-1 | 1.00 U | 0.309 | 1.00 | 5.00 |
| PFDA | 335-76-2 | 0.500 U | 0.142 | 0.500 | 5.00 |
| PFUnA | 2058-94-8 | 0.500 U | 0.219 | 0.500 | 5.00 |
| PFDoA | 307-55-1 | 0.500 U | 0.192 | 0.500 | 5.00 |
| PFTTrDA | 72629-94-8 | 0.500 U | 0.154 | 0.500 | 5.00 |
| PFTeDA | 376-06-7 | 2.00 U | 0.733 | 2.00 | 5.00 |
| NMeFOSAA | 2355-31-9 | 0.392 J | 0.350 | 1.00 | 5.00 |
| NEtFOSAA | 2991-50-6 | 1.00 U | 0.500 | 1.00 | 5.00 |
| PFBS | 375-73-5 | 0.500 U | 0.144 | 0.500 | 5.00 |
| PFHxS | 355-46-4 | 0.400 U | 0.112 | 0.400 | 5.00 |
| PFOS | 1763-23-1 | 1.00 U | 0.437 | 1.00 | 5.00 |
| HFPO-DA | 13252-13-6 | 0.500 U | 0.248 | 0.500 | 5.00 |
| Adona | 919005-14-4 | 1.00 U | 0.265 | 1.00 | 5.00 |
| 9Cl-PF3ONS | 756426-58-1 | 0.500 U | 0.268 | 0.500 | 5.00 |
| 11Cl-PF3OUdS | 763051-92-9 | 1.00 U | 0.231 | 1.00 | 5.00 |

Analyzed by: Schumitz, Denise

Printed: 11/11/2020

Isotope Dilution

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It can be done

Project Client: CH2M

Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.: 100142218

| | |
|-----------------------|---------------------------|
| Client ID | LD80 IB |
| Battelle ID | LD80 IB_11/05/2020 |
| Sample Type | IB |
| Collection Date | NA |
| Extraction Date | NA |
| Analysis Date | 11/05/2020 |
| Analytical Instrument | Sciex 6500+ (AE) LC/MS/MS |
| % Moisture | NA |
| Matrix | Water |
| Sample Size | 0.250 |
| Size Unit-Basis | L |

Surrogate Recoveries (%)

| | |
|--------------|-----|
| 13C5-PFHxA | 103 |
| 13C4-PFHpA | 107 |
| 13C8-PFOA | 104 |
| 13C9-PFNA | 111 |
| 13C6-PFDA | 100 |
| 13C7-PFUnA | 102 |
| 13C2-PFDoA | 101 |
| 13C2-PFTeDA | 98 |
| d3-MeFOSAA | 107 |
| d5-EtFOSAA | 105 |
| 13C3-PFBS | 100 |
| 13C3-PFHxS | 108 |
| 13C8-PFOS | 100 |
| 13C3-HFPO-DA | 87 |



It can be done

Project Client: CH2M

Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.: 100142218

Client ID LD80 IB

Battelle ID LD80 IB_11/06/2020

Sample Type IB

Collection Date NA

Extraction Date NA

Analysis Date 11/06/2020

Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

% Moisture NA

Matrix Water

Sample Size 0.250

Size Unit-Basis L

| Analyte | CAS No. | Result (ng/L) | DL | LOD | LOQ |
|--------------|-------------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 1.50 U | 0.527 | 1.50 | 5.00 |
| PFHpA | 375-85-9 | 1.00 U | 0.263 | 1.00 | 5.00 |
| PFOA | 335-67-1 | 1.50 U | 0.511 | 1.50 | 5.00 |
| PFNA | 375-95-1 | 1.00 U | 0.309 | 1.00 | 5.00 |
| PFDA | 335-76-2 | 0.500 U | 0.142 | 0.500 | 5.00 |
| PFUnA | 2058-94-8 | 0.500 U | 0.219 | 0.500 | 5.00 |
| PFDoA | 307-55-1 | 0.500 U | 0.192 | 0.500 | 5.00 |
| PFTTrDA | 72629-94-8 | 0.500 U | 0.154 | 0.500 | 5.00 |
| PFTeDA | 376-06-7 | 2.00 U | 0.733 | 2.00 | 5.00 |
| NMeFOSAA | 2355-31-9 | 0.383 J | 0.350 | 1.00 | 5.00 |
| NEtFOSAA | 2991-50-6 | 1.00 U | 0.500 | 1.00 | 5.00 |
| PFBS | 375-73-5 | 0.500 U | 0.144 | 0.500 | 5.00 |
| PFHxS | 355-46-4 | 0.400 U | 0.112 | 0.400 | 5.00 |
| PFOS | 1763-23-1 | 1.00 U | 0.437 | 1.00 | 5.00 |
| HFPO-DA | 13252-13-6 | 0.500 U | 0.248 | 0.500 | 5.00 |
| Adona | 919005-14-4 | 1.00 U | 0.265 | 1.00 | 5.00 |
| 9Cl-PF3ONS | 756426-58-1 | 0.500 U | 0.268 | 0.500 | 5.00 |
| 11Cl-PF3OUdS | 763051-92-9 | 1.00 U | 0.231 | 1.00 | 5.00 |

Analyzed by: Schumitz, Denise

Printed: 11/11/2020

Isotope Dilution

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It can be done

Project Client: CH2M

Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.: 100142218

| | |
|-----------------------|---------------------------|
| Client ID | LD80 IB |
| Battelle ID | LD80 IB_11/06/2020 |
| Sample Type | IB |
| Collection Date | NA |
| Extraction Date | NA |
| Analysis Date | 11/06/2020 |
| Analytical Instrument | Sciex 6500+ (AE) LC/MS/MS |
| % Moisture | NA |
| Matrix | Water |
| Sample Size | 0.250 |
| Size Unit-Basis | L |

Surrogate Recoveries (%)

| | |
|--------------|-----|
| 13C5-PFHxA | 105 |
| 13C4-PFHpA | 99 |
| 13C8-PFOA | 110 |
| 13C9-PFNA | 101 |
| 13C6-PFDA | 105 |
| 13C7-PFUnA | 100 |
| 13C2-PFDoA | 92 |
| 13C2-PFTeDA | 97 |
| d3-MeFOSAA | 104 |
| d5-EtFOSAA | 105 |
| 13C3-PFBS | 91 |
| 13C3-PFHxS | 99 |
| 13C8-PFOS | 94 |
| 13C3-HFPO-DA | 87 |



It can be done

Project Client: CH2M

Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.: 100142218

Client ID LD80 IB

Battelle ID LD80 IB_11/09/2020

Sample Type IB

Collection Date NA

Extraction Date NA

Analysis Date 11/09/2020

Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

% Moisture NA

Matrix Water

Sample Size 0.250

Size Unit-Basis L

| Analyte | CAS No. | Result (ng/L) | DL | LOD | LOQ |
|--------------|-------------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 1.50 U | 0.527 | 1.50 | 5.00 |
| PFHpA | 375-85-9 | 1.00 U | 0.263 | 1.00 | 5.00 |
| PFOA | 335-67-1 | 1.50 U | 0.511 | 1.50 | 5.00 |
| PFNA | 375-95-1 | 1.00 U | 0.309 | 1.00 | 5.00 |
| PFDA | 335-76-2 | 0.500 U | 0.142 | 0.500 | 5.00 |
| PFUnA | 2058-94-8 | 0.500 U | 0.219 | 0.500 | 5.00 |
| PFDoA | 307-55-1 | 0.500 U | 0.192 | 0.500 | 5.00 |
| PFTTrDA | 72629-94-8 | 0.500 U | 0.154 | 0.500 | 5.00 |
| PFTeDA | 376-06-7 | 2.00 U | 0.733 | 2.00 | 5.00 |
| NMeFOSAA | 2355-31-9 | 0.398 J | 0.350 | 1.00 | 5.00 |
| NEtFOSAA | 2991-50-6 | 1.00 U | 0.500 | 1.00 | 5.00 |
| PFBS | 375-73-5 | 0.500 U | 0.144 | 0.500 | 5.00 |
| PFHxS | 355-46-4 | 0.400 U | 0.112 | 0.400 | 5.00 |
| PFOS | 1763-23-1 | 1.00 U | 0.437 | 1.00 | 5.00 |
| HFPO-DA | 13252-13-6 | 0.500 U | 0.248 | 0.500 | 5.00 |
| Adona | 919005-14-4 | 1.00 U | 0.265 | 1.00 | 5.00 |
| 9Cl-PF3ONS | 756426-58-1 | 0.500 U | 0.268 | 0.500 | 5.00 |
| 11Cl-PF3OUdS | 763051-92-9 | 1.00 U | 0.231 | 1.00 | 5.00 |

Analyzed by: Schumitz, Denise

Printed: 11/11/2020

Isotope Dilution

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It can be done

Project Client: CH2M

Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.: 100142218

| | |
|-----------------------|---------------------------|
| Client ID | LD80 IB |
| Battelle ID | LD80 IB_11/09/2020 |
| Sample Type | IB |
| Collection Date | NA |
| Extraction Date | NA |
| Analysis Date | 11/09/2020 |
| Analytical Instrument | Sciex 6500+ (AE) LC/MS/MS |
| % Moisture | NA |
| Matrix | Water |
| Sample Size | 0.250 |
| Size Unit-Basis | L |

Surrogate Recoveries (%)

| | |
|--------------|-----|
| 13C5-PFHxA | 106 |
| 13C4-PFHpA | 104 |
| 13C8-PFOA | 110 |
| 13C9-PFNA | 97 |
| 13C6-PFDA | 95 |
| 13C7-PFUnA | 95 |
| 13C2-PFDoA | 91 |
| 13C2-PFTeDA | 87 |
| d3-MeFOSAA | 96 |
| d5-EtFOSAA | 107 |
| 13C3-PFBS | 105 |
| 13C3-PFHxS | 109 |
| 13C8-PFOS | 100 |
| 13C3-HFPO-DA | 96 |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID Procedural Blank

Battelle ID DB253PB-FS
 Sample Type PB
 Collection Date 11/04/2020
 Extraction Date 11/04/2020
 Analytical Instrument Sciex 6500+ (AE) LC/MS/MS
 % Moisture NA
 Matrix WATER
 Sample Size 0.250
 Size Unit-Basis L

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|-------------|---------------|---------------|-------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 1.50 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.527 | 1.50 | 5.00 |
| PFHpA | 375-85-9 | 1.00 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.263 | 1.00 | 5.00 |
| PFOA | 335-67-1 | 1.50 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.511 | 1.50 | 5.00 |
| PFNA | 375-95-1 | 1.00 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.309 | 1.00 | 5.00 |
| PFDA | 335-76-2 | 0.500 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.142 | 0.500 | 5.00 |
| PFUnA | 2058-94-8 | 0.500 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.219 | 0.500 | 5.00 |
| PFDoA | 307-55-1 | 0.500 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.192 | 0.500 | 5.00 |
| PFTTrDA | 72629-94-8 | 0.500 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.154 | 0.500 | 5.00 |
| PFTeDA | 376-06-7 | 2.00 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.733 | 2.00 | 5.00 |
| NMeFOSAA | 2355-31-9 | 1.00 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.350 | 1.00 | 5.00 |
| NEtFOSAA | 2991-50-6 | 1.00 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.500 | 1.00 | 5.00 |
| PFBS | 375-73-5 | 0.500 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.144 | 0.500 | 5.00 |
| PFHxS | 355-46-4 | 0.400 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.112 | 0.400 | 5.00 |
| PFOS | 1763-23-1 | 1.00 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.437 | 1.00 | 5.00 |
| HFPO-DA | 13252-13-6 | 0.500 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.248 | 0.500 | 5.00 |
| Adona | 919005-14-4 | 1.00 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.265 | 1.00 | 5.00 |
| 9Cl-PF3ONS | 756426-58-1 | 0.500 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.268 | 0.500 | 5.00 |
| 11Cl-PF3OUdS | 763051-92-9 | 1.00 U | DB253PB-FS(0) | 1.000 | 11/6/2020 | 0.231 | 1.00 | 5.00 |



Project Client: CH2M
Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
Project No.: 100142218

Client ID Procedural Blank

Battelle ID DB253PB-FS
Sample Type PB
Collection Date 11/04/2020
Extraction Date 11/04/2020
Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

| Surrogate Recoveries (%) | Recovery | Extract ID | Analysis Date |
|---------------------------------|-----------------|-------------------|----------------------|
| 13C5-PFHxA | 101 | DB253PB-FS(0) | 11/6/2020 |
| 13C4-PFHpA | 101 | DB253PB-FS(0) | 11/6/2020 |
| 13C8-PFOA | 102 | DB253PB-FS(0) | 11/6/2020 |
| 13C9-PFNA | 119 | DB253PB-FS(0) | 11/6/2020 |
| 13C6-PFDA | 103 | DB253PB-FS(0) | 11/6/2020 |
| 13C7-PFUnA | 109 | DB253PB-FS(0) | 11/6/2020 |
| 13C2-PFDoA | 95 | DB253PB-FS(0) | 11/6/2020 |
| 13C2-PFTEdA | 94 | DB253PB-FS(0) | 11/6/2020 |
| d3-MeFOSAA | 149 | DB253PB-FS(0) | 11/6/2020 |
| d5-EtFOSAA | 148 | DB253PB-FS(0) | 11/6/2020 |
| 13C3-PFBS | 113 | DB253PB-FS(0) | 11/6/2020 |
| 13C3-PFHxS | 119 | DB253PB-FS(0) | 11/6/2020 |
| 13C8-PFOS | 106 | DB253PB-FS(0) | 11/6/2020 |
| 13C3-HFPO-DA | 65 | DB253PB-FS(0) | 11/6/2020 |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID Laboratory Control Sample

Battelle ID DB254LCS-FS
 Sample Type LCS
 Collection Date 11/04/2020
 Extraction Date 11/04/2020
 Analytical Instrument Sciex 6500+ (AE) LC/MS/MS
 % Moisture NA
 Matrix WATER
 Sample Size 0.250
 Size Unit-Basis L

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | Target | Recovery | Qual | Control Limits | |
|--------------|-------------|---------------|----------------|-------|---------------|--------|----------|------|----------------|-------|
| | | | | | | | | | Lower | Upper |
| PFHxA | 307-24-4 | 36.8 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.4 | 91 | | 72 | 129 |
| PFHpA | 375-85-9 | 38.1 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 95 | | 72 | 130 |
| PFOA | 335-67-1 | 32.4 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 81 | | 71 | 133 |
| PFNA | 375-95-1 | 33.5 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 84 | | 69 | 130 |
| PFDA | 335-76-2 | 35.6 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 89 | | 71 | 129 |
| PFUnA | 2058-94-8 | 35.3 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 88 | | 69 | 133 |
| PFDoA | 307-55-1 | 38.5 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 96 | | 72 | 134 |
| PFTTrDA | 72629-94-8 | 37.7 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 94 | | 65 | 144 |
| PFTeDA | 376-06-7 | 37.1 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 93 | | 71 | 132 |
| NMeFOSAA | 2355-31-9 | 42.6 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 107 | | 65 | 136 |
| NEtFOSAA | 2991-50-6 | 37.1 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 93 | | 61 | 135 |
| PFBS | 375-73-5 | 39.9 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 100 | | 72 | 130 |
| PFHxS | 355-46-4 | 38.3 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.4 | 95 | | 68 | 131 |
| PFOS | 1763-23-1 | 37.6 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.4 | 93 | | 65 | 140 |
| HFPO-DA | 13252-13-6 | 43.4 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 109 | | 74 | 148 |
| Adona | 919005-14-4 | 33.7 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 84 | | 61 | 143 |
| 9CI-PF3ONS | 756426-58-1 | 30.4 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 76 | | 52 | 158 |
| 11CI-PF3OUdS | 763051-92-9 | 29.1 | DB254LCS-FS(0) | 1.000 | 11/6/2020 | 40.0 | 73 | | 59 | 147 |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

| | |
|-----------------------|---------------------------|
| Client ID | Laboratory Control Sample |
| Battelle ID | DB254LCS-FS |
| Sample Type | LCS |
| Collection Date | 11/04/2020 |
| Extraction Date | 11/04/2020 |
| Analytical Instrument | Sciex 6500+ (AE) LC/MS/MS |

| <i>Surrogate Recoveries (%)</i> | Recovery | Extract ID | Analysis Date |
|---------------------------------|-----------------|-------------------|----------------------|
| 13C5-PFHxA | 79 | DB254LCS-FS(0) | 11/6/2020 |
| 13C4-PFHpA | 72 | DB254LCS-FS(0) | 11/6/2020 |
| 13C8-PFOA | 83 | DB254LCS-FS(0) | 11/6/2020 |
| 13C9-PFNA | 95 | DB254LCS-FS(0) | 11/6/2020 |
| 13C6-PFDA | 89 | DB254LCS-FS(0) | 11/6/2020 |
| 13C7-PFUnA | 94 | DB254LCS-FS(0) | 11/6/2020 |
| 13C2-PFDoA | 83 | DB254LCS-FS(0) | 11/6/2020 |
| 13C2-PFTeDA | 81 | DB254LCS-FS(0) | 11/6/2020 |
| d3-MeFOSAA | 121 | DB254LCS-FS(0) | 11/6/2020 |
| d5-EtFOSAA | 110 | DB254LCS-FS(0) | 11/6/2020 |
| 13C3-PFBS | 92 | DB254LCS-FS(0) | 11/6/2020 |
| 13C3-PFHxS | 96 | DB254LCS-FS(0) | 11/6/2020 |
| 13C8-PFOS | 81 | DB254LCS-FS(0) | 11/6/2020 |
| 13C3-HFPO-DA | 64 | DB254LCS-FS(0) | 11/6/2020 |



Glossary of Data Qualifiers

Flag: Application:

| | |
|----|--|
| B | Analyte found in the sample at a concentration <10x the level found in the procedural blank |
| D | Dilution Run. Initial run outside the initial calibration range of the instrument |
| E | Estimate, result is greater than the highest concentration level in the calibration |
| J | Analyte detected below the Limit of Quantitation (LOQ) |
| MI | Significant Matrix Interference - value could not be determined. |
| N | Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO) |
| NA | Not Applicable |
| T | Holding Time (HT) exceeded |
| U | Analyte not detected or detected below the Detection Limit (DL) value, Limit of Detection (LOD) reported |
| Q | Ion ratio outside of criteria (50% difference from calibration expected ratio) |

Miscellaneous Documentation

QA/QC Summary Batch 20-1419

| | |
|-------------------------|---|
| Project: | CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10 |
| Client Project Manager: | Michael Zamboni |
| Parameters: | PFAS |
| Laboratory: | Battelle, Norwell, MA |
| Matrix: | SW |
| Data Set: | DP-20-1298 |
| Analytical SOP: | 5-369 |
| Method Reference: | PFAS to QSM 5.3 Table B-15 |

| Sample Custody | | |
|-----------------|--------------|-----------|
| Collection Date | Receipt Date | Temp (°C) |
| 10/13/2020 | 10/14/2020 | 1.0 |

| | |
|--------------------|---|
| Corrective Actions | None. |
| Sample Storage | The samples were stored refrigerated until extraction. |
| Related samples | Samples re-extracted from SDG 20-1298 to verify extracted internal standard recoveries. |

| METHOD SUMMARIES | |
|--------------------|---|
| Sample Preparation | Water samples were fortified with surrogates in the original sample container from the field. The water was extracted using a weak-anion exchange (WAX) solid phase extraction (SPE) cartridge. Target analytes are eluted from the WAX SPE using methanol followed by 0.5% NH ₃ in methanol. Extracts were further refined using Envi-carb to remove co-extracted interferences. Extracts were concentrated to approximately 500 µL under nitrogen with a water bath set between 50 °C and 60 °C, reconstituted with methanol/water and fortified with internal standard. Extracts were transferred for LC-MS/MS analysis in 80:20 methanol/water (V/V). |
| Prep comments | <p>pH of all samples prior to SPE extraction was verified between 6 and 8.</p> <p>Samples DB253PB-FS (Procedural Blank), DB254LCS-FS (Laboratory Control Sample), G1654-FS1 (CBD-AOA-SW01-1020), and G1668-FS1 (CBD-AOA-SW09-1020) were fortified with extracted internal standards, shaken, and transferred to a new HDPE bottle. The samples were centrifuged at 3,500 RPM for five minutes. The supernatant was then decanted back into the original sample container prior to extraction. This procedure was performed due to the level of particulate matter present in the field samples centrifuged.</p> <p>Samples G1645-FS1 (CBD-AOA-SW05-1020), G1646-FS1 (CBD-AOA-SW03-1020), G1647-FS1 (CBD-AOA-SW04-1020), G1651-FS1 (CBD-AOA-SW02-1020), and G1654-FS1 (CBD-AOA-SW01-1020) clogged the top filter of the SPE cartridge during extraction. The filter was popped and left inside the cartridge for the remainder of the extraction and elution procedure</p> |
| Analysis | PFAS were measured by liquid chromatography tandem mass spectrometry (LC-MS/MS) in the multiple reaction monitoring (MRM). An initial calibration consisting of representative target analytes, labelled analogs, and internal standards was analyzed prior to analysis to demonstrate the linear range of |

QA/QC Summary
Batch 20-1419

| | |
|-------------------|--|
| | analysis. Calibration verification was performed at the beginning and end of 10 injections and at the end of each sequence. Target PFAS were quantified using the isotope dilution method. Samples are reported in ng/L concentrations to three (3) significant figures. |
| Analysis Comments | <p>Samples analyzed on Sciex 6500+ (AE) LC-MS/MS.</p> <p>MeFOSAA, EtFOSAA, PFHxS, and PFOS in the LCS, and field samples when detected, were found and reported as a combination of the linear and branched isomers.</p> <p>Adona, 9CI-PF3ONS, and 11CI-PF3OUdS are quantified using 13C8-PFOA.</p> <p>13C9-PFNA is quantified using 13C4-PFOS.</p> <p>Due to the potential contribution of high concentration of native compounds to labelled analogs, in cases where the native PFOA and PFOS are reported from a dilution, the extracted internal standards reported from 13C2-PFOA and 13C4-PFOS are reported from the same dilution level. In all other cases, the extracted internal standard is reported from the same dilution level as the native compound.</p> <p>Re-extraction to verify QC exceedances from the initial extraction occurred outside of the 14-day collection to extraction holding time window. This is allowable under QSM 5.3 for corrective actions associated with QC exceedances. All sample results are "T" qualified.</p> |

| Holding Times | Extraction Date(s) | Analysis Date(s) |
|---------------|--------------------|----------------------|
| | 11/4/2020 | 11/5 – 7, and 9/2020 |

| | |
|----------------------------|--|
| Procedural Blank (PB) | A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination. |
| $\leq \frac{1}{2}$ the LOQ | No exceedances noted. |
| Samples >10x PB | No comments. |

| | |
|--|---|
| Laboratory Control Spike (LCS) | A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy. |
| Laboratory derived control limits for recovery | No exceedances noted. |
| | No comments. |

| | |
|---|--|
| Matrix Spike and Matrix Spike Duplicate (MS/MSD) | A MS/MSD was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy. |
| Laboratory derived control limits for recovery and <30% RPD | Project specific MS/MSD not included in this data set. |
| | No comments. |

QA/QC Summary Batch 20-1419

| Extracted Internal Standard Analytes | Labelled analog compounds were added prior to extraction. The recoveries are calculated to measure extraction efficiency. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|------------------------|------------------------|-------------------------|------------------------|-------------------------|-------------------------------|---|---|--|--|-------------------------------|---|--|--|--|-------------------------------|---|---|--|--|-------------------------------|---|---|--|--|-------------------------------|---|---|--|--|-------------------------------|---|---|---|---|-------------------------------|--|--|---|---|
| 50-150% of true value | <p>Fifteen (15) exceedances noted.</p> <p>Seven samples had suppressed or enhanced recoveries for select extracted internal standards. The table below indicates if the extracted internal standard was within +/- 50% of the area of the L5 calibration point ("P") or if the area showed suppression ("↓") or enhancement ("↑") for these extracted internal standards.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>¹³C5-PFHxA</th> <th>¹³C4-PFHpA</th> <th>¹³C2-PFDoA</th> <th>¹³C2-PFTeDA</th> </tr> </thead> <tbody> <tr> <td>G1644-FS1 (CBD-AOA-SW07-1020)</td> <td>↓</td> <td>↓</td> <td></td> <td></td> </tr> <tr> <td>G1645-FS1 (CBD-AOA-SW05-1020)</td> <td>↓</td> <td></td> <td></td> <td></td> </tr> <tr> <td>G1646-FS1 (CBD-AOA-SW03-1020)</td> <td>↓</td> <td>↓</td> <td></td> <td></td> </tr> <tr> <td>G1647-FS1 (CBD-AOA-SW04-1020)</td> <td>↓</td> <td>↓</td> <td></td> <td></td> </tr> <tr> <td>G1651-FS1 (CBD-AOA-SW02-1020)</td> <td>↓</td> <td>↓</td> <td></td> <td></td> </tr> <tr> <td>G1654-FS1 (CBD-AOA-SW01-1020)</td> <td>↓</td> <td>↓</td> <td>↓</td> <td>↓</td> </tr> <tr> <td>G1668-FS1 (CBD-AOA-SW09-1020)</td> <td></td> <td></td> <td>↓</td> <td>↓</td> </tr> </tbody> </table> <p>The remaining extracted internal standards in each impacted sample, fortified from the same solution, pass all criteria, suggesting that the suppression is matrix related to these analytes only.</p> | | ¹³ C5-PFHxA | ¹³ C4-PFHpA | ¹³ C2-PFDoA | ¹³ C2-PFTeDA | G1644-FS1 (CBD-AOA-SW07-1020) | ↓ | ↓ | | | G1645-FS1 (CBD-AOA-SW05-1020) | ↓ | | | | G1646-FS1 (CBD-AOA-SW03-1020) | ↓ | ↓ | | | G1647-FS1 (CBD-AOA-SW04-1020) | ↓ | ↓ | | | G1651-FS1 (CBD-AOA-SW02-1020) | ↓ | ↓ | | | G1654-FS1 (CBD-AOA-SW01-1020) | ↓ | ↓ | ↓ | ↓ | G1668-FS1 (CBD-AOA-SW09-1020) | | | ↓ | ↓ |
| | ¹³ C5-PFHxA | ¹³ C4-PFHpA | ¹³ C2-PFDoA | ¹³ C2-PFTeDA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G1644-FS1 (CBD-AOA-SW07-1020) | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G1645-FS1 (CBD-AOA-SW05-1020) | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G1646-FS1 (CBD-AOA-SW03-1020) | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G1647-FS1 (CBD-AOA-SW04-1020) | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G1651-FS1 (CBD-AOA-SW02-1020) | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G1654-FS1 (CBD-AOA-SW01-1020) | ↓ | ↓ | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G1668-FS1 (CBD-AOA-SW09-1020) | | | ↓ | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Internal Standard Analytes | Labelled analog compounds were added prior to analysis. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| +/- 50% of the area of the L4 calibration point. | <p>No exceedances noted.</p> <p>There are 2 instances of ¹³C4-PFOS in undiluted or low-level diluted extracts outside of criteria. In all cases the associated results were reported from higher level dilutions that pass IS area criteria and there was no impact on the reported data.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Initial Calibration (ICAL) | The LC-MS/MS was calibrated with multi-level calibration curve for all compounds using linear or quadratic curve fitting. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| +/- 30% of true value, R ² ≥0.99 | <p>No exceedances noted.</p> <p>No comments.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Independent Calibration Check (ICC) | The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| +/- 30% of true value | <p>No exceedances noted.</p> <p>No comments.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

QA/QC Summary
Batch 20-1419

| | |
|---|---|
| Continuing Calibration Verification (CCV) | Continuing calibration standards were run at the beginning and end of 10 injections and at the end of the sequence to ensure that initial calibration is still valid. |
| +/- 30% of true value | No exceedances noted. |
| | <p>The following secondary transitions are outside of criteria:</p> <ul style="list-style-type: none"> · EtFOSAA in LD76 CCV (11/6/2020 22:17:56) · EtFOSAA in LD77 CCV (11/7/2020 00:13:05) · 11Cl-PF3OUdS in LD76 CCV (11/9/2020 12:23:40) <p>The secondary transition is monitored solely for peak identification, not quantification. There is no impact on the reported data.</p> |
| Instrument Blank (IB) | Immediately following the highest standard analyzed and daily prior to sample analysis. |
| ≤ ½ the LOQ | No exceedances noted. |
| | No comments. |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project Number: 100142218
 Preparation Batch: 20-1419
 Data Set: DP-20-1298
 Test Code: Master_369B

| QC Parameter: | Exceed: | Justification: |
|---|---------|--|
| Procedural Blank | 0 | None |
| PB Measurement Quality Objective | 0 | None |
| Laboratory Control Sample | 0 | None |
| Matrix Spike / Matrix Spike Duplicate Recovery | NA | NA |
| Matrix Spike / Matrix Spike Duplicate Precision | NA | NA |
| Extracted Internal Standard Analytes (Surrogates) | 15 | There are fifteen extracted internal standard analytes that do not meet passing criteria and were confirmed from the previous batch SDG 20-1298. DMS 11/9/2020 |
| Instrument Calibration | 0 | None |
| Instrument Blank | 0 | None |
| Independent Calibration Check | 0 | None |
| Continuing Calibration Verification | 0 | None |



It can be done

BATTELLE - NORWELL OPERATIONS MISCELLANEOUS DOCUMENTATION FORM

| | | | |
|---------------------------------|------------------------------------|---------------------------|------------|
| Project Title: | CTO-4532: NRL Chesapeake Bay Detac | Data Set Number: | DP-20-1298 |
| Project Number: | 100142218 | Prep Batch Number: | 20-1419 |
| Entered By: | Denise Schumitz | Entered On: | 11/10/2020 |
| Test Code (Matrix Type): | Master_369B(L) | | |

Samples that were manually integrated are noted on the quant reports with the comment (TRUE).
DMS 11/10/2020

ADONA, 9CI-PF3ONS and 11CI-PF3OUdS are being quantified off 13C8-PFOA instead of 13C3-HFPO-DA.
DMS 11/10/2020

Due to the potential contribution of high concentration of native compounds to labelled analogs, in cases where the native PFOA and PFOS are reported from a dilution, the extracted internal standards reported from 13C2-PFOA and 13C4-PFOS are reported from the same dilution level. In all other cases, the extracted internal standard is reported from the same dilution level as the native compound.
DMS 11/10/2020

13C9-PFNA is being quantified from 13C4-PFOS and not 13C2-PFOA.
DMS 11/10/2020

The following secondary transitions are outside of criteria:

- NEtFOSAA in LD76 CCV (11/6/2020 22:17:56)
- NEtFOSAA in LD77 CCV (11/7/2020 00:13:05)
- 11CI-PF3OUdS in LD76 CCV (11/9/2020 12:23:40)

The secondary transition is monitored solely for peak identification, not quantification. There is no impact on the reported data.

Task Leader Approval:

Supervisor Approval:

PM Approval:

Digitally signed by Jonathan Thorn
Date: 2020.11.11 06:54:59 -05'00'

Example Calculation for PFAS

Calculation of final concentration from area:

$$\text{Concentration} = \left[\frac{PA - b}{m} \right] * C_{IS} * PIV * DF / S$$

Where:

PA = Area of target / area of internal standard

b = y intercept from calibration curve

CIS = concentration of internal standard (ng/L)

m = slope of calibration

DF = dilution factor

S = Sample Size

PIV = Pre-injection volume (L)

Sample ID: G1644-FS1-D(7)
 Client Sample ID: CBD-AOA-SW07-1020
 Sample Size: 0.25
 Units: L
 Dilution Factor: 31.250
 PIV (L): 0.001
 Target Analyte: PFOS
 MRM Transition: 499.0 / 80.0
 Data file: AE_11052020_5-369.wiff
 Result table: 20-1419
 Area: 8,207,131.73
 IS Name: 13C8-PFOS
 IS Area: 201,961.21
 IS Amount (ng/L): 1195
 y-intercept: 0.06746
 slope: 3.76103

$$\text{Concentration} = \frac{[(8207131.73/201961.21) - 0.06746]}{3.76103} * 1195 * 0.001 * 31.25 / 0.25$$

$$\text{ng/L} = 1,611.29$$

*Final concentration may vary based on rounding.



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218
 Preparation Batch: 20-1419
 Data Set: DP-20-1298

| | | DB253PB-FS (Procedural Blank) | DB254LCS-FS (Laboratory Control Sample) | G1644-FS1 (CBD-AOA-SW07-1020) | G1645-FS1 (CBD-AOA-SW05-1020) | G1646-FS1 (CBD-AOA-SW03-1020) | G1647-FS1 (CBD-AOA-SW04-1020) | G1651-FS1 (CBD-AOA-SW02-1020) | G1654-FS1 (CBD-AOA-SW01-1020) | G1661-FS1 (CBD-AOA-SW06-1020) | G1668-FS1 (CBD-AOA-SW09-1020) |
|--------------|-------------|-------------------------------|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| PFHxA | 307-24-4 | - | L | L | L | L | L | L | L | L | L |
| PFHpA | 375-85-9 | - | L | L | L | L | L | L | L | L | L |
| PFOA | 335-67-1 | - | L | L | L | L | L | L | L | L | L |
| PFNA | 375-95-1 | - | L | L | L | L | L | L | L | L | L |
| PFDA | 335-76-2 | - | L | L | L | L | - | - | - | L | L |
| PFUnA | 2058-94-8 | - | L | L | L | L | L | L | L | L | L |
| PFDoA | 307-55-1 | - | L | - | - | - | - | - | - | L | L |
| PFTTrDA | 72629-94-8 | - | L | - | - | - | - | - | - | L | L |
| PFTeDA | 376-06-7 | - | L | - | - | - | - | - | - | - | - |
| NMeFOSAA | 2355-31-9 | - | L/Br | - | - | - | - | - | - | L/Br | L/Br |
| NEtFOSAA | 2991-50-6 | - | L/Br | - | - | - | - | - | - | - | - |
| PFBS | 375-73-5 | - | L | L | L | L | L | L | L | L | L |
| PFHxS | 355-46-4 | - | L/Br | L/Br | L/Br | L/Br | L/Br | L/Br | L/Br | L/Br | L/Br |
| PFOS | 1763-23-1 | - | L/Br | L/Br | L/Br | L/Br | L/Br | L/Br | L/Br | L/Br | L/Br |
| HFPO-DA | 13252-13-6 | - | L | - | - | - | - | - | - | - | - |
| Adona | 919005-14-4 | - | L | - | - | - | - | - | - | - | - |
| 9CI-PF3ONS | 756426-58-1 | - | L | - | - | - | - | - | - | - | - |
| 11CI-PF3OUdS | 763051-92-9 | - | L | - | - | - | - | - | - | - | - |

"L": Linear

"Br": branched

"L/Br": Linear/Branched

"-": Not detected

Project Client: CH2M

Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.: 100142218



Passing criteria = 50% to 150% of internal standard area (compared to mid-point of calibration)

| Sample Name | Sample ID | Analysis Date | 13C3-PFBA | 13C2-PFOA | 13C2-PFDA | 13C4-PFOS |
|-------------|-----------|---------------|-----------|--------------|--------------|------------|
| LD77 | L4 | 11/5/20 14:17 | - | 711,956.51 | 940,747.67 | 185,913.74 |
| | | Lower | - | 355,978.26 | 470,373.84 | 92,956.87 |
| | | Upper | - | 1,067,934.77 | 1,411,121.51 | 278,870.61 |

| Sample Name | Sample ID | Analysis Date | 13C3-PFBA | Qual | User | 13C2-PFOA | Qual | User | 13C2-PFDA | Qual | User | 13C4-PFOS | Qual | User |
|----------------|---------------------------|---------------|-----------|------|------|--------------|------|------|--------------|------|------|------------|------|------|
| LD74 | L1 | 11/5/20 13:46 | - | | | 666,092.74 | | | 1,024,257.59 | | | 169,902.02 | | |
| LD75 | L2 | 11/5/20 13:56 | - | | | 634,349.70 | | | 987,350.36 | | | 166,740.64 | | |
| LD76 | L3 | 11/5/20 14:06 | - | | | 733,846.07 | | | 1,044,704.24 | | | 191,638.83 | | |
| LD77 | L4 | 11/5/20 14:17 | - | | | 711,956.51 | | | 940,747.67 | | | 185,913.74 | | |
| LD78 | L5 | 11/5/20 14:27 | - | | | 706,685.09 | | | 939,129.34 | | | 157,209.48 | | |
| LD79 | L6 | 11/5/20 14:38 | - | | | 681,173.46 | | | 849,818.95 | | | 167,186.16 | | |
| LD80 IB | Instrument Blank | 11/5/20 14:48 | - | | | 681,233.61 | | | 959,338.09 | | | 164,880.32 | | |
| LD81 ICC | ICC | 11/5/20 14:59 | - | | | 702,017.09 | | | 947,982.79 | | | 174,564.26 | | |
| LD76 CCV | CCV | 11/6/20 13:12 | - | | | 816,459.62 | | | 1,166,667.12 | | | 229,167.57 | | |
| LD80 IB | Instrument Blank | 11/6/20 13:33 | - | | | 741,393.25 | | | 1,120,719.13 | | | 194,868.48 | | |
| LD76 CCV | CCV | 11/6/20 22:17 | - | | | 826,179.16 | | | 1,130,123.83 | | | 217,345.65 | | |
| DB253PB-FS(0) | Procedural Blank | 11/6/20 22:38 | - | | | 1,053,494.45 | | | 1,394,650.75 | | | 219,887.49 | | |
| DB254LCS-FS(0) | Laboratory Control Sample | 11/6/20 22:49 | - | | | 1,021,050.55 | | | 1,342,728.67 | | | 225,801.42 | | |
| G1644-FS1(0) | CBD-AOA-SW07-1020 | 11/6/20 22:59 | - | | | 616,146.68 | | | 995,114.57 | | | 92,781.66 | N | 1 |
| G1645-FS1(0) | CBD-AOA-SW05-1020 | 11/6/20 23:10 | - | | | 581,139.48 | | | 1,071,934.99 | | | 99,001.31 | | |
| G1646-FS1(0) | CBD-AOA-SW03-1020 | 11/6/20 23:20 | - | | | 645,621.12 | | | 1,005,700.05 | | | 147,068.34 | | |
| G1647-FS1(0) | CBD-AOA-SW04-1020 | 11/6/20 23:31 | - | | | 655,528.85 | | | 985,451.02 | | | 157,905.06 | | |
| G1651-FS1(0) | CBD-AOA-SW02-1020 | 11/6/20 23:41 | - | | | 665,102.90 | | | 1,013,582.88 | | | 166,997.60 | | |
| G1654-FS1(0) | CBD-AOA-SW01-1020 | 11/6/20 23:52 | - | | | 636,941.08 | | | 891,256.21 | | | 141,263.68 | | |
| LD77 CCV | CCV | 11/7/20 0:13 | - | | | 841,571.43 | | | 1,138,106.89 | | | 233,376.87 | | |
| G1661-FS1(0) | CBD-AOA-SW06-1020 | 11/7/20 0:23 | - | | | 469,472.72 | | | 789,391.44 | | | 57,664.57 | N | 1 |
| G1668-FS1(0) | CBD-AOA-SW09-1020 | 11/7/20 0:34 | - | | | 612,057.54 | | | 1,067,738.55 | | | 127,084.31 | | |
| LD76 CCV | CCV | 11/7/20 0:54 | - | | | 896,139.32 | | | 1,186,767.18 | | | 207,877.35 | | |
| LD76 CCV | CCV | 11/9/20 9:25 | - | | | 693,055.64 | | | 1,024,606.79 | | | 176,745.67 | | |
| LD80 IB | Instrument Blank | 11/9/20 9:46 | - | | | 640,695.79 | | | 1,063,535.63 | | | 169,104.00 | | |
| LD76 CCV | CCV | 11/9/20 12:23 | - | | | 801,244.38 | | | 1,183,532.89 | | | 214,255.84 | | |
| G1644-FS1-D(3) | CBD-AOA-SW07-1020 | 11/9/20 12:34 | - | | | 712,879.37 | | | 1,027,625.09 | | | 144,201.18 | | |
| G1645-FS1-D(3) | CBD-AOA-SW05-1020 | 11/9/20 12:55 | - | | | 721,221.07 | | | 1,031,439.61 | | | 171,044.49 | | |
| G1645-FS1-D(7) | CBD-AOA-SW05-1020 | 11/9/20 13:16 | - | | | 875,884.63 | | | 1,163,767.23 | | | 206,034.45 | | |
| G1646-FS1-D(3) | CBD-AOA-SW03-1020 | 11/9/20 13:26 | - | | | 820,368.93 | | | 1,105,013.29 | | | 197,913.19 | | |
| G1647-FS1-D(3) | CBD-AOA-SW04-1020 | 11/9/20 13:37 | - | | | 746,390.85 | | | 1,141,864.50 | | | 203,803.78 | | |
| G1661-FS1-D(3) | CBD-AOA-SW06-1020 | 11/9/20 13:47 | - | | | 875,963.95 | | | 1,073,731.65 | | | 127,524.50 | | |
| LD77 CCV | CCV | 11/9/20 14:08 | - | | | 762,108.72 | | | 1,158,463.76 | | | 208,053.54 | | |
| G1661-FS1-D(5) | CBD-AOA-SW06-1020 | 11/9/20 14:19 | - | | | 921,539.70 | | | 1,154,857.76 | | | 196,807.49 | | |
| G1668-FS1-D(3) | CBD-AOA-SW09-1020 | 11/9/20 14:40 | - | | | 801,453.65 | | | 1,198,793.49 | | | 197,664.12 | | |
| G1668-FS1-D(5) | CBD-AOA-SW09-1020 | 11/9/20 14:50 | - | | | 921,624.26 | | | 1,285,093.68 | | | 223,948.16 | | |
| LD76 CCV | CCV | 11/9/20 15:21 | - | | | 845,983.41 | | | 1,206,839.78 | | | 219,948.80 | | |
| LD77 CCV | CCV | 11/9/20 17:06 | - | | | 792,842.43 | | | 1,068,306.97 | | | 220,854.38 | | |
| G1644-FS1-D(7) | CBD-AOA-SW07-1020 | 11/9/20 17:58 | - | | | 816,288.93 | | | 1,147,490.45 | | | 204,538.14 | | |
| G1661-FS1-D(9) | CBD-AOA-SW06-1020 | 11/9/20 18:09 | - | | | 746,813.25 | | | 1,137,064.34 | | | 214,429.08 | | |
| LD76 CCV | CCV | 11/9/20 18:19 | - | | | 796,274.44 | | | 1,193,925.87 | | | 206,112.91 | | |

1. IS area outside of criteria, likely due to contribution from the native, extracted internal standards and natives reported from higher dilution. DMS 11/9/2020

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD78 | Injection Vial | 6 |
| Sample ID | L5 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:27:51 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Asymmetry Factor | Passing Range |
|---------|----------------|------|------------------|---------------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 1.19 | 0.8 – 1.5 |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 1.22 | 0.8 – 1.5 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD79 | Injection Vial | 7 |
| Sample ID | L6 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:38:18 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Spectra Acquisition Rate | Passing Range |
|----------------|----------------|------|--------------------------|---------------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 60 | >10 |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 53 | >10 |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 45 | >10 |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 31 | >10 |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 38 | >10 |
| PFHpA_2 | 363.0 / 169.0 | 1.89 | 33 | >10 |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 54 | >10 |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 44 | >10 |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 54 | >10 |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 28 | >10 |
| PFNA_1 | 463.0 / 419.0 | 2.63 | 46 | >10 |
| PFNA_2 | 463.0 / 219.0 | 2.63 | 45 | >10 |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 50 | >10 |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 43 | >10 |
| PFDA_1 | 513.0 / 469.0 | 2.98 | 43 | >10 |
| PFDA_2 | 513.0 / 219.0 | 2.98 | 46 | >10 |
| PFUnA_1 | 563.0 / 519.0 | 3.30 | 66 | >10 |
| PFUnA_2 | 563.0 / 269.0 | 3.30 | 48 | >10 |
| PFDoA_1 | 613.0 / 569.0 | 3.59 | 92 | >10 |
| PFDoA_2 | 613.0 / 319.0 | 3.59 | 70 | >10 |
| PFTrDA_1 | 663.0 / 619.0 | 3.85 | 112 | >10 |
| PFTrDA_2 | 663.0 / 169.0 | 3.85 | 61 | >10 |
| PFTeDA_1 | 713.0 / 669.0 | 4.08 | 96 | >10 |
| PFTeDA_2 | 713.0 / 169.0 | 4.08 | 81 | >10 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.13 | 71 | >10 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.12 | 65 | >10 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 70 | >10 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.29 | 55 | >10 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 29 | >10 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 35 | >10 |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 39 | >10 |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 38 | >10 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 58 | >10 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.83 | 25 | >10 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.46 | 50 | >10 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.46 | 35 | >10 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD79 | Injection Vial | 7 |
| Sample ID | L6 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:38:18 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Spectra Acquisition Rate | Passing Range |
|--------------|----------------|------|--------------------------|---------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 38 | >10 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 37 | >10 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 35 | >10 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 41 | >10 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 32 | >10 |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 34 | >10 |
| 13C9-PFNA | 472.0 / 427.0 | 2.62 | 44 | >10 |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 34 | >10 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 36 | >10 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 86 | >10 |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 41 | >10 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 33 | >10 |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 36 | >10 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 40 | >10 |



Precision and Bias at the LOQ for PFAS in non-potable Water

| Analyte | CAS No. | Average (ng/L) | ST DEV | 2 Sigma | n ¹ |
|--------------|-------------|----------------|--------|---------|----------------|
| PFBA | 375-22-4 | 11.00 | 0.9226 | 1.85 | 14 |
| PFPeA | 2706-90-3 | 9.81 | 0.7228 | 1.45 | 11 |
| PFHxA | 307-24-4 | 9.88 | 1.1365 | 2.27 | 43 |
| PFHpA | 375-85-9 | 9.76 | 0.9225 | 1.85 | 43 |
| PFOA | 335-67-1 | 9.93 | 1.3923 | 2.78 | 44 |
| PFNA | 375-95-1 | 9.71 | 1.1236 | 2.25 | 43 |
| PFDA | 335-76-2 | 9.51 | 0.9842 | 1.97 | 43 |
| PFUnA | 2058-94-8 | 9.55 | 0.9267 | 1.85 | 43 |
| PFDoA | 307-55-1 | 10.22 | 0.9055 | 1.81 | 43 |
| PFTTrDA | 72629-94-8 | 9.93 | 1.2752 | 2.55 | 43 |
| PFTeDA | 376-06-7 | 10.39 | 0.9707 | 1.94 | 43 |
| NMeFOSAA | 2355-31-9 | 10.02 | 1.5564 | 3.11 | 43 |
| NEtFOSAA | 2991-50-6 | 9.55 | 1.4218 | 2.84 | 43 |
| PFOSA | 754-91-6 | 10.06 | 0.8394 | 1.68 | 11 |
| PFBS | 375-73-5 | 9.63 | 1.1816 | 2.36 | 43 |
| PFPeS | 2706-91-4 | 9.88 | 0.9203 | 1.84 | 5 |
| PFHxS | 355-46-4 | 9.90 | 1.1346 | 2.27 | 43 |
| PFHpS | 375-92-8 | 10.13 | 1.0851 | 2.17 | 11 |
| PFOS | 1763-23-1 | 9.78 | 1.2383 | 2.48 | 44 |
| PFNS | 68259-12-1 | 9.45 | 1.0923 | 2.18 | 5 |
| PFDS | 335-77-3 | 9.55 | 1.3140 | 2.63 | 11 |
| 4:2FTS | 757124-72-4 | 10.38 | 1.7353 | 3.47 | 6 |
| 6:2FTS | 27619-97-2 | 10.08 | 1.1871 | 2.37 | 12 |
| 8:2FTS | 39108-34-4 | 9.59 | 1.4345 | 2.87 | 12 |
| HFPO-DA | 13252-13-6 | 10.92 | 1.4420 | 2.88 | 25 |
| Adona | 919005-14-4 | 10.38 | 1.4862 | 2.97 | 25 |
| 11Cl-PF3OUds | 763051-92-9 | 9.80 | 1.5701 | 3.14 | 25 |
| 9Cl-PF3ONS | 756426-58-1 | 9.52 | 1.0952 | 2.19 | 25 |

¹ Minimum of 20 samples required per QAM for determination of uncertainty, results including less than 20 data points are estimated.

BATTELLE DETECTION LIMITS FOR PFAS IN NON-POTABLE WATER

QSM 5.1.1 compliant with Table B-15 requirements

| Analyte | CAS No. | MDL (ng/L) | LOD (ng/L) | LOQ (ng/L) |
|---------------------|-------------|------------|------------|------------|
| PFBA | 375-22-4 | 0.45 | 1.0 | 5.0 |
| PFPeA | 2706-90-3 | 0.26 | 1.0 | 5.0 |
| PFHxA | 307-24-4 | 0.53 | 1.5 | 5.0 |
| PFHpA | 375-85-9 | 0.26 | 1.0 | 5.0 |
| PFOA | 335-67-1 | 0.51 | 1.5 | 5.0 |
| PFNA | 375-95-1 | 0.31 | 1.0 | 5.0 |
| PFDA | 335-76-2 | 0.14 | 0.5 | 5.0 |
| PFUnA | 2058-94-8 | 0.22 | 0.5 | 5.0 |
| PFDoA | 307-55-1 | 0.19 | 0.5 | 5.0 |
| PFTrDA | 72629-94-8 | 0.15 | 0.5 | 5.0 |
| PFTeDA | 376-06-7 | 0.73 | 2.0 | 5.0 |
| NMeFOSAA | 2355-31-9 | 0.35 | 1.0 | 5.0 |
| NEtFOSAA | 2991-50-6 | 0.50 | 1.0 | 5.0 |
| PFOSA | 754-91-6 | 0.46 | 1.0 | 5.0 |
| PFBS | 375-73-5 | 0.14 | 0.5 | 5.0 |
| PFPeS | 2706-91-4 | 0.26 | 1.0 | 5.0 |
| PFHxS | 355-46-4 | 0.11 | 0.4 | 5.0 |
| PFHpS | 375-92-8 | 0.85 | 2.0 | 5.0 |
| PFOS | 1763-23-1 | 0.44 | 1.0 | 5.0 |
| PFNS | 68259-12-1 | 0.36 | 1.0 | 5.0 |
| PFDS | 335-77-3 | 0.27 | 1.0 | 5.0 |
| 4:2FTS | 747124-72-4 | 0.50 | 1.0 | 5.0 |
| 6:2FTS | 27619-97-2 | 0.53 | 1.5 | 5.0 |
| 8:2FTS | 39108-34-4 | 0.60 | 2.0 | 5.0 |
| 3:3 FTCA | 356-02-5 | 1.32 | 3.0 | 5.0 |
| 5:3 FTCA | 914637-49-3 | 1.59 | 3.0 | 5.0 |
| 7:3 FTCA | 812-70-4 | 1.40 | 3.0 | 5.0 |
| HFPO-DA | 13252-13-6 | 0.25 | 0.5 | 5.0 |
| Adona | 919005-14-4 | 0.27 | 1.0 | 5.0 |
| 11CI-PF3OUdS | 763051-92-9 | 0.23 | 0.5 | 5.0 |
| 9CI-PF3ONS | 756426-58-1 | 0.27 | 1.0 | 5.0 |

Analytes on ELAP QSM 5.1.1 Scope of accreditation

MDL calculated based on 40 CFR 136 (2017)

Analytical Transitions for PFAS in non-potable water, solid, and tissue

| Analyte | CAS No. | Type | Primary Transition | Secondary Transition |
|--------------|-------------|--------|--------------------|----------------------|
| PFBA | 375-22-4 | Target | 213.0 / 169.0 | NA |
| PFPeA | 2706-90-3 | Target | 263.0 / 219.0 | NA |
| PFHxA | 307-24-4 | Target | 313.0 / 269.0 | 313.0 / 119.0 |
| PFHpA | 375-85-9 | Target | 363.0 / 319.0 | 363.0 / 169.0 |
| PFOA | 335-67-1 | Target | 413.0 / 369.0 | 413.0 / 169.0 |
| PFNA | 375-95-1 | Target | 463.0 / 419.0 | 463.0 / 219.0 |
| PFDA | 335-76-2 | Target | 513.0 / 469.0 | 513.0 / 219.0 |
| PFUnA | 2058-94-8 | Target | 563.0 / 519.0 | 563.0 / 269.0 |
| PFDoA | 307-55-1 | Target | 613.0 / 569.0 | 613.0 / 319.0 |
| PFTTrDA | 72629-94-8 | Target | 663.0 / 619.0 | 663.0 / 169.0 |
| PFTeDA | 376-06-7 | Target | 713.0 / 669.0 | 713.0 / 169.0 |
| NMeFOSAA | 2355-31-9 | Target | 570.0 / 419.0 | 570.0 / 512.0 |
| NEtFOSAA | 2991-50-6 | Target | 584.0 / 419.0 | 584.0 / 483.0 |
| PFOSA | 754-91-6 | Target | 498.0 / 78.0 | 498.0 / 83.0 |
| PFBS | 375-73-5 | Target | 299.0 / 80.0 | 299.0 / 99.0 |
| PFPeS | BDO-2114 | Target | 349.0 / 99.0 | 249.0 / 80.0 |
| PFHxS | 355-46-4 | Target | 399.0 / 80.0 | 399.0 / 99.0 |
| PFHpS | 375-99-6 | Target | 449.0 / 80.0 | 449.0 / 99.0 |
| PFOS | 1763-23-1 | Target | 499.0 / 80.0 | 499.0 / 99.0 |
| PFNS | 98789-57-2 | Target | 549.0 / 99.0 | 549.0 / 80.0 |
| PFDS | 2806-15-7 | Target | 599.0 / 80.0 | 599.0 / 99.0 |
| 4:2FTS | BDO-2205 | Target | 327.0 / 307.0 | 327.0 / 80.0 |
| 6:2FTS | 27619-97-2 | Target | 427.0 / 407.0 | 427.0 / 81.0 |
| 8:2FTS | 39108-34-4 | Target | 527.0 / 507.0 | 527.0 / 487.0 |
| 3:3 FTCA | 356-02-5 | Target | 241.0 / 177.0 | NA |
| 5:3 FTCA | 914637-49-3 | Target | 341.0 / 237.0 | NA |
| 7:3 FTCA | 812-70-4 | Target | 441.0 / 337.0 | NA |
| HFPO-DA | 13252-13-6 | Target | 285.0 / 169.0 | 285.0 / 118.8 |
| Adona | 919005-14-4 | Target | 377.0 / 251.0 | 377.0 / 85.0 |
| 9CI-PF3ONS | 756426-58-1 | Target | 531.0 / 351.0 | 531.0 / 83.0 |
| 11CI-PF3OUdS | 763051-92-9 | Target | 631.0 / 451.0 | 631.0 / 83.0 |

| Analyte | CAS No. | Type | Primary Transition | Secondary Transition |
|---------------------------------------|---------|------------------|--------------------|----------------------|
| 13C4-PFBA | NA | SIS ¹ | 217.0 / 172.0 | NA |
| 13C5-PFPeA | NA | SIS ¹ | 268.0 / 223.0 | NA |
| 13C5-PFHxA | NA | SIS ¹ | 318.0 / 273.0 | NA |
| 13C4-PFHpA | NA | SIS ¹ | 367.0 / 322.0 | NA |
| 13C8-PFOA | NA | SIS ¹ | 421.0 / 376.0 | NA |
| 13C9-PFNA | NA | SIS ¹ | 472.0 / 427.0 | NA |
| 13C6-PFDA | NA | SIS ¹ | 519.0 / 474.0 | NA |
| 13C7-PFUnA | NA | SIS ¹ | 570.0 / 525.0 | NA |
| 13C2-PFDoA | NA | SIS ¹ | 615.0 / 570.0 | NA |
| 13C2-PFTeDA | NA | SIS ¹ | 715.0 / 670.0 | NA |
| d3-MeFOSAA | NA | SIS ¹ | 573.0 / 419.0 | NA |
| d5-EtFOSAA | NA | SIS ¹ | 589.0 / 419.0 | NA |
| 13C8-FOSA | NA | SIS ¹ | 506.0 / 78.0 | NA |
| 13C3-PFBS | NA | SIS ¹ | 302.0 / 99.0 | NA |
| 13C3-PFHxS | NA | SIS ¹ | 402.0 / 99.0 | NA |
| 13C8-PFOS | NA | SIS ¹ | 507.0 / 99.0 | NA |
| 13C2-4:2FTS | NA | SIS ¹ | 329.0 / 81.0 | NA |
| 13C2-6:2FTS | NA | SIS ¹ | 429.0 / 81.0 | NA |
| 13C2-8:2FTS | NA | SIS ¹ | 529.0 / 81.0 | NA |
| ¹³ C ₃ -HFPO-DA | NA | SIS | 287.0 / 169.0 | NA |
| 13C3-PFBA | NA | IS ² | 216.0 / 172.0 | NA |
| 13C2-PFOA | NA | IS ² | 415.0 / 370.0 | NA |
| 13C2-PFDA | NA | IS ² | 515.0 / 470.0 | NA |
| 13C4-PFOS | NA | IS ² | 503.0 / 99.0 | NA |

¹ – extracted internal standard (surrogate)

² – injection internal standard



Non-Potable Water Calibration to Sample Equivalents

| ICAL (ng/L) | PIV (mL) | DF ¹ | Sample Size (L) | Sample Equivalent (ng/L) ² |
|-------------|----------|-----------------|-----------------|---------------------------------------|
| 125 | 1 | 1 | 0.250 | 0.5 |
| 250 | 1 | 1 | 0.250 | 1.0 |
| 500 | 1 | 1 | 0.250 | 2.0 |
| 1,000 | 1 | 1 | 0.250 | 4.0 |
| 2,500 | 1 | 1 | 0.250 | 10.0 |
| 10,000 | 1 | 1 | 0.250 | 40.0 |
| 25,000 | 1 | 1 | 0.250 | 100.0 |

¹ - base level dilution as part of the extraction procedure

² - calculated equivalent of a sample based on the ICAL concentration



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Triple Quad 6500+

LC/MS/MS Detector System

Appendix ZEFPM003-1S

Triple Quad 6500+ Preventive Maintenance Checklist

| | |
|-------------------------------------|--|
| Preventive Maintenance Date: | |
| Request ID: | |
| Company Name: | |
| Instrument ID: | |
| Instrument Model: | |
| Instrument Serial Number: | |

PASS **FAIL**

Any failure will lead to an automatic Service Call being open to investigate fault.

Preventive Maintenance is performed twice every year unless specified in the Service Contract. It is designed to help maintain optimum system performance and to help diagnose any system deficiencies.

Engineer is required the assigned Request ID for this PM otherwise making this job invalid.

Comments: _____

Performed By: _____ **Date:** _____

Approved By : _____ **Date:** _____



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Triple Quad 6500+

LC/MS/MS Detector System

Appendix ZEFPM003-1S

PRE-PM PPG PERFORMANCE EVALUATION:

- Consult the customer concerning the system overall performance.
- Check Logbook for services performed recently if available.
- Check Vacuum Pressure.

| CAD Settings | Vacuum Reading (10 ⁻⁵ Torr) | Acceptance Criteria |
|---------------------------------|---|------------------------------------|
| <input type="checkbox"/> CAD 0 | | 0.4 to 1.1 x 10 ⁻⁵ Torr |
| <input type="checkbox"/> CAD 12 | | 2.4 to 4.1 x 10 ⁻⁵ Torr |

- Check for Front end contamination symptoms. Run Q1 POS PPG using PPG 2e-7M for a few minutes and check for any TIC signal degradation or huge sensitivity drop where the sensitivity result can't pass specification.
 - No degradation or Sensitivity drop
- Check for Q3 contamination symptoms. Run Q3 POS PPG using PPG 2e-7M for a few minutes and check for any TIC signal degradation or huge sensitivity drop where the sensitivity result can't pass specification.
 - No degradation or Sensitivity drop

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Triple Quad 6500+

LC/MS/MS Detector System

Appendix ZEFPM003-1S

PPG Performance Test

(Make printouts showing all the peaks, intensities, peak widths, and mass shift values.)

Positive Mode: Masses for the peaks of interest are: 59.050, 175.133, 500.380, 616.464, 906.673, 1254.925, 1545.134, 1952.427.

High Mass Test

Perform High Mass Q1 POS using POS PPG 2e-7M (500:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q1 Intensity | | Q1 Width Value | Width Specs |
|-------------|--------------|-----------|----------------|-------------|
| | Value | Specs | | |
| Q1 500.380 | | Read Only | | Read Only |
| Q1 616.464 | | Read Only | | Read Only |
| Q1 906.673 | | Read Only | | Read Only |
| Q1 1952.427 | | Read Only | | Read Only |

Perform High Mass Q3 POS using POS PPG 2e-7M (500:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q3 Intensity | | Q3 Width Value | Width Specs |
|-------------|--------------|-----------|----------------|-------------|
| | Value | Specs | | |
| Q3 500.380 | | Read Only | | Read Only |
| Q3 616.464 | | Read Only | | Read Only |
| Q3 906.673 | | Read Only | | Read Only |
| Q3 1952.427 | | Read Only | | Read Only |

Low Mass Test

Perform Low Mass Q1 POS using POS PPG 2e-7M (500:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q1 Intensity | | Q1 Width Value | Width Specs |
|------------|--------------|-----------|----------------|-------------|
| | Value | Specs | | |
| Q1 175.133 | | Read Only | | Read Only |
| Q1 500.380 | | Read Only | | Read Only |
| Q1 616.464 | | Read Only | | Read Only |
| Q1 906.673 | | Read Only | | Read Only |

Perform Low Mass Q3 POS using POS PPG 2e-7M (500:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q3 Intensity | | Q3 Width Value | Width Specs |
|------------|--------------|-----------|----------------|-------------|
| | Value | Specs | | |
| Q3 175.133 | | Read Only | | Read Only |
| Q3 500.380 | | Read Only | | Read Only |
| Q3 616.464 | | Read Only | | Read Only |
| Q3 906.673 | | Read Only | | Read Only |

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Triple Quad 6500+

LC/MS/MS Detector System

Appendix ZEFPM003-1S

Preventive Maintenance Procedure

- Check cooling fans in mass spec if working. Replace them soon, if defective.
- Clean bench cooling fans if applicable. Replace them soon, if defective.
- Record AC input voltage while MS is OFF: _____ (200 to 240 Vac).
Notify customer if input voltage is out of range.
- After venting, clean Interface region:
 - Curtain Plate
 - Orifice Plate atmosphere side
 - Orifice Plate vacuum side
 - Ion Drive QJet and IQ0.
- Check Q0 for signs of arcing and clean with cleaning solvent.
- Replace Roughing Pump Oil.
- Clean oil exhaust Filter.

Replace if necessary. N/A
- Adjust Multiplier Voltage if necessary.
- Clean or replace Air Filters.
- Clean the turbo pump filter screen if applicable.
- Check Orifice resistances.

Replace it soon if out of resistance specifications. N/A
- Replace Electrode if necessary in Ion Drive Turbo V source.
- Check Turbo heaters resistances and their physical conditions in Ion Drive Turbo V source.

Replace the defective heaters if necessary. N/A
- Check the APCI heater resistance. Verify Temperature reaches setpoint

Replace the heater if necessary. N/A
- Turn on the mass spec and rough pumps for pumping down.
- Verify Temperature reaches setpoint in both TIS and APCI modes if applicable.

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Appendix ZEFPM003-1S

POST- PM PPG PERFORMANCE TESTS:

- Set-up PPG standard for infusion.
- Check spray and adjust sprayer's position of the Ion Drive Turbo V source.
- Check Vacuum Pressure:

| CAD Settings | Vacuum Reading (10^{-5} Torr) | Acceptance Criteria |
|---------------------------------|-------------------------------------|----------------------------------|
| <input type="checkbox"/> CAD 0 | | 0.4 to 1.1×10^{-5} Torr |
| <input type="checkbox"/> CAD 12 | | 2.4 to 4.1×10^{-5} Torr |

- Check for Front end contamination symptoms. Run Q1 POS PPG using PPG 2e-7M for a few minutes and check for any TIC signal degradation or huge sensitivity drop where the sensitivity result can't pass specification.
 - No degradation or Sensitivity drop
- Check for Q3 contamination symptoms. Run Q3 POS PPG using PPG 2e-7M for a few minutes and check for any TIC signal degradation or huge sensitivity drop where the sensitivity result can't pass specification.
 - No degradation or Sensitivity drop

PPG Performance Test

(Mass calibrate to less than 0.1 amu. Make printouts showing all the peaks, intensities, peak widths, and mass shift values.)

Positive Mode: Masses for the peaks of interest are: 59.050, 175.133, 500.380, 616.464, 906.673, 1254.925, 1545.134, 1952.427.

Negative Mode: Masses for the peaks of interest are: 44.998, 411.259, 585.385, 933.636, 1223.845, 1572.097, 1863.306, 1979.389.

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Triple Quad 6500+

LC/MS/MS Detector System

Appendix ZEFPM003-1S

High Mass Test

Perform High Mass Q1 POS using POS PPG 2e-7M (500:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q1 Intensity | | Q1 Width Value | Width Specs |
|-------------|--------------|-----------------|----------------|-------------|
| | Value | Specs | | |
| Q1 500.380 | | $\geq 3.2^{e7}$ | | 0.6 to 0.8 |
| Q1 616.464 | | $\geq 2.0^{e7}$ | | 0.6 to 0.8 |
| Q1 906.673 | | $\geq 9.6^{e7}$ | | 0.6 to 0.8 |
| Q1 1952.427 | | $\geq 2.4^{e6}$ | | 0.6 to 0.8 |

Perform High Mass Q3 POS using POS PPG 2e-7M (500:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q3 Intensity | | Q3 Width Value | Width Specs |
|-------------|--------------|-----------------|----------------|-------------|
| | Value | Specs | | |
| Q3 500.380 | | $\geq 3.2^{e7}$ | | 0.6 to 0.8 |
| Q3 616.464 | | $\geq 2.0^{e7}$ | | 0.6 to 0.8 |
| Q3 906.673 | | $\geq 9.6^{e7}$ | | 0.6 to 0.8 |
| Q3 1952.427 | | $\geq 2.4^{e6}$ | | 0.6 to 0.8 |

Perform MSMS POS in Product Ion scan with 907 parent and record daughter 175.1 using POS PPG 2e-7M (500:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | MSMS Intensity | | MSMS Width Value | Width Specs |
|-------------|----------------|-----------|------------------|-------------|
| | Value | Spec | | |
| MS/MS 175.1 | | Read Only | | Read Only |

Perform Q1 NEG using NEG PPG 3 x 10⁻⁵ M (10:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q1 Intensity | | Q1 Width Value | Width Specs |
|-------------|--------------|-----------------|----------------|-------------|
| | Value | Specs | | |
| Q1 933.636 | | $\geq 1.8^{e7}$ | | 0.6 to 0.8 |
| Q1 1863.306 | | $\geq 1.0^{e6}$ | | 0.6 to 0.8 |

Perform Q3 NEG using NEG PPG 3 x 10⁻⁵ M (10:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q3 Intensity | | Q3 Width Value | Width Specs |
|-------------|--------------|-----------------|----------------|-------------|
| | Value | Specs | | |
| Q3 933.636 | | $\geq 1.8^{e7}$ | | 0.6 to 0.8 |
| Q3 1863.306 | | $\geq 1.0^{e6}$ | | 0.6 to 0.8 |

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LC/MS/MS Detector System

Appendix ZEFPM003-1S

Low Mass Test

Perform Low Mass Q1 POS using POS PPG 2e-7M (500:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q1 Intensity | | Q1 Width Value | Width Specs |
|------------|--------------|------------------|----------------|-------------|
| | Value | Specs | | |
| Q1 175.133 | | $\geq 8.0^{e6}$ | | 0.6 to 0.8 |
| Q1 500.380 | | $\geq 3.68^{e7}$ | | 0.6 to 0.8 |
| Q1 616.464 | | $\geq 2.4^{e7}$ | | 0.6 to 0.8 |
| Q1 906.673 | | $\geq 1.0^{e8}$ | | 0.6 to 0.8 |

Perform Low Mass Q3 POS using POS PPG 2e-7M (500:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q3 Intensity | | Q3 Width Value | Width Specs |
|------------|--------------|------------------|----------------|-------------|
| | Value | Specs | | |
| Q3 175.133 | | $\geq 8.0^{e6}$ | | 0.6 to 0.8 |
| Q3 500.380 | | $\geq 3.68^{e7}$ | | 0.6 to 0.8 |
| Q3 616.464 | | $\geq 2.4^{e7}$ | | 0.6 to 0.8 |
| Q3 906.673 | | $\geq 1.0^{e8}$ | | 0.6 to 0.8 |

Perform Q1 NEG using NEG PPG 3 x 10-5 M (10:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q1 Intensity | | Q1 Width Value | Width Specs |
|------------|--------------|-----------------|----------------|-------------|
| | Value | Spec | | |
| Q1 933.636 | | $\geq 1.8^{e7}$ | | 0.6 to 0.8 |

Perform Q3 NEG using NEG PPG 3 x 10-5 M (10:1). Scan Rate 10 Da/s. Record 10 MCA.

| Mass | Q3 Intensity | | Q3 Width Value | Width Specs |
|------------|--------------|-----------------|----------------|-------------|
| | Value | Spec | | |
| Q3 933.636 | | $\geq 1.8^{e7}$ | | 0.6 to 0.8 |

Perform MSMS NEG in Product Ion scan with 933.6 parent and record daughter 45.0 using NEG PPG 3 x 10-5 M (10:1) at the scan rate of 10 Da/s for 10 MCA.

| Mass | MSMS Intensity | | MSMS Width Value | Width Specs |
|------------|----------------|-----------|------------------|-------------|
| | Value | Spec | | |
| MS/MS 45.0 | | Read Only | | Read Only |

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Triple Quad 6500+

LC/MS/MS Detector System
Appendix ZEFPM003-1S

REVIEW:

- Attach all printouts to this checklist.
- If any parameter setting access modes were changed during the PM, ensure that they are returned to their normal access mode and that their offsets are adjusted to match optimized values from the post-PM acquisition files.
- Empty tuning cache folder, if necessary. N/A
- Fill and replaced PM Label.

END OF PREVENTIVE MAINTENANCE PROCEDURE**Document history:**

04 OCT 2016: Appendix ZEFPM003-1S: New SOP Appendix.

| Battelle Standard ID | Description | Intermediate Solutions | | | Battelle Reagent ID (purchased solutions) |
|----------------------|---|------------------------|------|------|---|
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-01 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-02 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-03 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-04 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-05 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-06 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-07 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-08 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-09 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-10 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-11 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-12 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-13 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-14 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-15 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-16 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-17 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-18 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-19 |
| LD44 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-20 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-01 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-02 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-03 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-04 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-05 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-06 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-07 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-08 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-09 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-10 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-11 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-12 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-13 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-14 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-15 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-16 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-17 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-18 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-19 |
| LE39 | PFAS - DoD Low Level Labelled Extracted Internal Standard | LB74 | - | - | 200721-20 |
| LE23 | PFAS - DoD Second Source LCS/MS Solution | - | - | - | 201006-07 |
| LE23 | PFAS - DoD Second Source LCS/MS Solution | LC24 | - | - | 200811-01 |
| LE23 | PFAS - DoD Second Source LCS/MS Solution | LC24 | - | - | 200811-02 |
| LE23 | PFAS - DoD Second Source LCS/MS Solution | LC24 | - | - | 200811-03 |
| LE40 | PFAS - DoD Internal Standard Spiking Solution | LB75 | - | - | 200721-21 |
| LE40 | PFAS - DoD Internal Standard Spiking Solution | LB75 | - | - | 200721-22 |
| LE40 | PFAS - DoD Internal Standard Spiking Solution | LB75 | - | - | 200721-23 |
| LE40 | PFAS - DoD Internal Standard Spiking Solution | LB75 | - | - | 200721-24 |
| LD74 | PFAS - DoD Calibration L1 | LB78 | LB75 | - | 200721-21 |
| LD74 | PFAS - DoD Calibration L1 | LB78 | LB75 | - | 200721-22 |
| LD74 | PFAS - DoD Calibration L1 | LB78 | LB75 | - | 200721-23 |
| LD74 | PFAS - DoD Calibration L1 | LB78 | LB75 | - | 200721-24 |
| LD74 | PFAS - DoD Calibration L1 | LC85 | LC84 | LC24 | 200811-01 |
| LD74 | PFAS - DoD Calibration L1 | LC85 | LC84 | LC24 | 200811-02 |
| LD74 | PFAS - DoD Calibration L1 | LC85 | LC84 | LC24 | 200811-03 |
| LD74 | PFAS - DoD Calibration L1 | LC85 | LC84 | - | 200914-01 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-01 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-02 |

| Battelle Standard ID | Description | Intermediate Solutions | | | Battelle Reagent ID (purchased solutions) |
|----------------------|---------------------------|------------------------|------|------|---|
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-03 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-04 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-05 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-06 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-07 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-08 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-09 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-10 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-11 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-12 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-13 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-14 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-15 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-16 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-17 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-18 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-19 |
| LD74 | PFAS - DoD Calibration L1 | LD73 | LB74 | - | 200721-20 |
| LD75 | PFAS - DoD Calibration L2 | LB78 | LB75 | - | 200721-21 |
| LD75 | PFAS - DoD Calibration L2 | LB78 | LB75 | - | 200721-22 |
| LD75 | PFAS - DoD Calibration L2 | LB78 | LB75 | - | 200721-23 |
| LD75 | PFAS - DoD Calibration L2 | LB78 | LB75 | - | 200721-24 |
| LD75 | PFAS - DoD Calibration L2 | LC85 | LC84 | LC24 | 200811-01 |
| LD75 | PFAS - DoD Calibration L2 | LC85 | LC84 | LC24 | 200811-02 |
| LD75 | PFAS - DoD Calibration L2 | LC85 | LC84 | LC24 | 200811-03 |
| LD75 | PFAS - DoD Calibration L2 | LC85 | LC84 | - | 200914-01 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-01 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-02 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-03 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-04 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-05 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-06 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-07 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-08 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-09 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-10 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-11 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-12 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-13 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-14 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-15 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-16 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-17 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-18 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-19 |
| LD75 | PFAS - DoD Calibration L2 | LD73 | LB74 | - | 200721-20 |
| LD76 | PFAS - DoD Calibration L3 | LB78 | LB75 | - | 200721-21 |
| LD76 | PFAS - DoD Calibration L3 | LB78 | LB75 | - | 200721-22 |
| LD76 | PFAS - DoD Calibration L3 | LB78 | LB75 | - | 200721-23 |
| LD76 | PFAS - DoD Calibration L3 | LB78 | LB75 | - | 200721-24 |
| LD76 | PFAS - DoD Calibration L3 | LC84 | LC24 | - | 200811-01 |
| LD76 | PFAS - DoD Calibration L3 | LC84 | LC24 | - | 200811-02 |
| LD76 | PFAS - DoD Calibration L3 | LC84 | LC24 | - | 200811-03 |
| LD76 | PFAS - DoD Calibration L3 | LC84 | - | - | 200914-01 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-01 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-02 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-03 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-04 |

| Battelle Standard ID | Description | Intermediate Solutions | | | Battelle Reagent ID (purchased solutions) |
|----------------------|---------------------------|------------------------|------|---|---|
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-05 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-06 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-07 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-08 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-09 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-10 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-11 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-12 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-13 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-14 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-15 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-16 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-17 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-18 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-19 |
| LD76 | PFAS - DoD Calibration L3 | LD73 | LB74 | - | 200721-20 |
| LD77 | PFAS - DoD Calibration L4 | LB78 | LB75 | - | 200721-21 |
| LD77 | PFAS - DoD Calibration L4 | LB78 | LB75 | - | 200721-22 |
| LD77 | PFAS - DoD Calibration L4 | LB78 | LB75 | - | 200721-23 |
| LD77 | PFAS - DoD Calibration L4 | LB78 | LB75 | - | 200721-24 |
| LD77 | PFAS - DoD Calibration L4 | LC84 | LC24 | - | 200811-01 |
| LD77 | PFAS - DoD Calibration L4 | LC84 | LC24 | - | 200811-02 |
| LD77 | PFAS - DoD Calibration L4 | LC84 | LC24 | - | 200811-03 |
| LD77 | PFAS - DoD Calibration L4 | LC84 | - | - | 200914-01 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-01 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-02 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-03 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-04 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-05 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-06 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-07 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-08 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-09 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-10 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-11 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-12 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-13 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-14 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-15 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-16 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-17 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-18 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-19 |
| LD77 | PFAS - DoD Calibration L4 | LD73 | LB74 | - | 200721-20 |
| LD78 | PFAS - DoD Calibration L5 | LB78 | LB75 | - | 200721-21 |
| LD78 | PFAS - DoD Calibration L5 | LB78 | LB75 | - | 200721-22 |
| LD78 | PFAS - DoD Calibration L5 | LB78 | LB75 | - | 200721-23 |
| LD78 | PFAS - DoD Calibration L5 | LB78 | LB75 | - | 200721-24 |
| LD78 | PFAS - DoD Calibration L5 | LC84 | LC24 | - | 200811-01 |
| LD78 | PFAS - DoD Calibration L5 | LC84 | LC24 | - | 200811-02 |
| LD78 | PFAS - DoD Calibration L5 | LC84 | LC24 | - | 200811-03 |
| LD78 | PFAS - DoD Calibration L5 | LC84 | - | - | 200914-01 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-01 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-02 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-03 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-04 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-05 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-06 |

| Battelle Standard ID | Description | Intermediate Solutions | | | Battelle Reagent ID (purchased solutions) |
|----------------------|---------------------------|------------------------|------|---|---|
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-07 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-08 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-09 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-10 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-11 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-12 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-13 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-14 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-15 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-16 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-17 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-18 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-19 |
| LD78 | PFAS - DoD Calibration L5 | LD73 | LB74 | - | 200721-20 |
| LD79 | PFAS - DoD Calibration L6 | LB78 | LB75 | - | 200721-21 |
| LD79 | PFAS - DoD Calibration L6 | LB78 | LB75 | - | 200721-22 |
| LD79 | PFAS - DoD Calibration L6 | LB78 | LB75 | - | 200721-23 |
| LD79 | PFAS - DoD Calibration L6 | LB78 | LB75 | - | 200721-24 |
| LD79 | PFAS - DoD Calibration L6 | LC84 | LC24 | - | 200811-01 |
| LD79 | PFAS - DoD Calibration L6 | LC84 | LC24 | - | 200811-02 |
| LD79 | PFAS - DoD Calibration L6 | LC84 | LC24 | - | 200811-03 |
| LD79 | PFAS - DoD Calibration L6 | LC84 | - | - | 200914-01 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-01 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-02 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-03 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-04 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-05 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-06 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-07 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-08 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-09 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-10 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-11 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-12 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-13 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-14 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-15 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-16 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-17 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-18 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-19 |
| LD79 | PFAS - DoD Calibration L6 | LD73 | LB74 | - | 200721-20 |
| LD81 | PFAS - DoD ICC | LB78 | LB75 | - | 200721-21 |
| LD81 | PFAS - DoD ICC | LB78 | LB75 | - | 200721-22 |
| LD81 | PFAS - DoD ICC | LB78 | LB75 | - | 200721-23 |
| LD81 | PFAS - DoD ICC | LB78 | LB75 | - | 200721-24 |
| LD81 | PFAS - DoD ICC | LD43 | LC24 | - | 200811-01 |
| LD81 | PFAS - DoD ICC | LD43 | LC24 | - | 200811-02 |
| LD81 | PFAS - DoD ICC | LD43 | LC24 | - | 200811-03 |
| LD81 | PFAS - DoD ICC | LD43 | - | - | 200909-01 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-01 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-02 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-03 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-04 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-05 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-06 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-07 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-08 |

| Battelle Standard ID | Description | Intermediate Solutions | | | Battelle Reagent ID (purchased solutions) |
|----------------------|----------------|------------------------|------|---|---|
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-09 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-10 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-11 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-12 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-13 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-14 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-15 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-16 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-17 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-18 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-19 |
| LD81 | PFAS - DoD ICC | LD73 | LB74 | - | 200721-20 |



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **LB74**

Description: PFAS - DoD SIS Stock

| Stock Id: 200721-01 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------------|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| | 13C4-PFBA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-02 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C5-PFPeA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-03 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C5-PFHxA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-04 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C4-PFHpA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-05 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C8-PFOA | 1000 | 48.90 | 1 | 97.800 | 1 | 50 | 0.97800 |
| Stock Id: 200721-06 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C9-PFNA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-07 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C6-PFDA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-08 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C7-PFUnA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-09 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C2-PFDoA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |

Solution Prepared By: Schultz, Stephanie Date Prepared: 7/21/2020 Expiration Date: 7/21/2021

Solution Volume : 40 mL X 5 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q water (RP-200722-1)

Approved By: Schumitz, Denise Date: 7/23/2020 11:25:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **LB74**

Description: PFAS - DoD SIS Stock

| Stock Id: 200721-10 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------------|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| | 13C2-PFTeDA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-11 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C2-4:2FTS | 1000 | 46.70 | 1 | 98.000 | 1 | 50 | 0.93400 |
| Stock Id: 200721-12 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C2-6:2FTS | 1000 | 47.50 | 1 | 98.000 | 1 | 50 | 0.95000 |
| Stock Id: 200721-13 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C2-8:2FTS | 1000 | 47.90 | 1 | 98.000 | 1 | 50 | 0.95800 |
| Stock Id: 200721-14 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C3-PFBS | 1000 | 46.50 | 1 | 98.000 | 1 | 50 | 0.93000 |
| Stock Id: 200721-15 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C3-PFHxS | 1000 | 47.30 | 1 | 98.000 | 1 | 50 | 0.94600 |
| Stock Id: 200721-16 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | 13C8-PFOS | 1000 | 47.80 | 1 | 98.000 | 1 | 50 | 0.95600 |
| Stock Id: 200721-17 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | d3-MeFOSAA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-18 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| | d5-EtFOSAA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |

Solution Prepared By: Schultz, Stephanie Date Prepared: 7/21/2020 Expiration Date: 7/21/2021

Solution Volume : 40 mL X 5 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q water (RP-200722-1)

Approved By: Schumitz, Denise Date: 7/23/2020 11:25:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **LB74**

Description: PFAS - DoD SIS Stock

Stock Id: 200721-19

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C8-FOSA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |

Stock Id: 200721-20

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C3-HFPO-DA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |

Final Concentrations:

| Analyte: | Conc (ug/mL): |
|--------------|---------------|
| 13C2-4:2FTS | .93400 |
| 13C2-6:2FTS | .95000 |
| 13C2-8:2FTS | .95800 |
| 13C2-PFDoA | 1.00000 |
| 13C2-PFTeDA | 1.00000 |
| 13C3-HFPO-DA | 1.00000 |
| 13C3-PFBS | .93000 |
| 13C3-PFHxS | .94600 |
| 13C4-PFBA | 1.00000 |
| 13C4-PFHpA | 1.00000 |
| 13C5-PFHxA | 1.00000 |
| 13C5-PFPeA | 1.00000 |
| 13C6-PFDA | 1.00000 |
| 13C7-PFUnA | 1.00000 |
| 13C8-FOSA | 1.00000 |
| 13C8-PFOA | .97800 |
| 13C8-PFOS | .95600 |
| 13C9-PFNA | 1.00000 |
| d3-MeFOSAA | 1.00000 |
| d5-EtFOSAA | 1.00000 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| 200721-01 | Pipette | B820865811 |
| 200721-02 | Pipette | B820865811 |
| 200721-03 | Pipette | B820865811 |
| 200721-04 | Pipette | B820865811 |

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 7/21/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 5 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q water (RP-200722-1)

Approved By: Schumitz, Denise **Date:** 7/23/2020 11:25:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LB74

Description: PFAS - DoD SIS Stock

| | | |
|-----------|---------|------------|
| 200721-05 | Pipette | B820865811 |
| 200721-06 | Pipette | B820865811 |
| 200721-07 | Pipette | B820865811 |
| 200721-08 | Pipette | B820865811 |
| 200721-09 | Pipette | B820865811 |
| 200721-10 | Pipette | B820865811 |
| 200721-11 | Pipette | B820865811 |
| 200721-12 | Pipette | B820865811 |
| 200721-13 | Pipette | B820865811 |
| 200721-14 | Pipette | B820865811 |
| 200721-15 | Pipette | B820865811 |
| 200721-16 | Pipette | B820865811 |
| 200721-17 | Pipette | B820865811 |
| 200721-18 | Pipette | B820865811 |
| 200721-19 | Pipette | B820865811 |
| 200721-20 | Pipette | B820865811 |

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 7/21/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 5 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q water (RP-200722-1)

Approved By: Schumitz, Denise **Date:** 7/23/2020 11:25:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **LB75**

Description: PFAS - DoD RIS Stock

| Stock Id: 200721-21 | | | | | | | |
|---------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| 13C2-PFDA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-22 | | | | | | | |
| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| 13C2-PFOA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-23 | | | | | | | |
| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| 13C3-PFBA | 1000 | 50.00 | 1 | 98.000 | 1 | 50 | 1.00000 |
| Stock Id: 200721-24 | | | | | | | |
| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| 13C4-PFOS | 1000 | 47.80 | 1 | 98.000 | 1 | 50 | 0.95600 |

Final Concentrations:

| Analyte: | Conc (ug/mL): |
|-----------|---------------|
| 13C2-PFDA | 1.00000 |
| 13C2-PFOA | 1.00000 |
| 13C3-PFBA | 1.00000 |
| 13C4-PFOS | .95600 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| 200721-21 | Pipette | B820865811 |
| 200721-22 | Pipette | B820865811 |
| 200721-23 | Pipette | B820865811 |
| 200721-24 | Pipette | B820865811 |

Solution Prepared By: Schultz, Stephanie Date Prepared: 7/21/2020 Expiration Date: 7/21/2021

Solution Volume : 40 mL X 5 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0123

Comment: 96/4 methanol/milli-q water (RP-200722-1)

Approved By: Schumitz, Denise Date: 7/23/2020 11:25:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LB78

Description: PFAS - DoD Internal Standard Stock Solution

Stock Id: LB75

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-PFDA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C2-PFOA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C3-PFBA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C4-PFOS | 5000 | 0.96 | --- | --- | 1 | 50 | 0.09560 |

Final Concentrations:

| Analyte: | Conc (ug/mL): |
|-----------|---------------|
| 13C2-PFDA | .10000 |
| 13C2-PFOA | .10000 |
| 13C3-PFBA | .10000 |
| 13C4-PFOS | .09560 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB75 | Pipette | B906204506 |

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 7/21/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 5 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q water (RP-200722-1)

Approved By: Schumitz, Denise **Date:** 7/23/2020 11:25:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LC24

Description: PFAS - FTCA Stock

| Stock Id: 200811-01 | | | | | | | |
|----------------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| 3-perfluoropropyl propanoic Acid | 1000 | 50.00 | 1 | 98.000 | 1 | 10 | 5.00000 |
| Stock Id: 200811-02 | | | | | | | |
| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| 3-Perfluoroheptyl propanoic acid | 1000 | 50.00 | 1 | 98.000 | 1 | 10 | 5.00000 |
| Stock Id: 200811-03 | | | | | | | |
| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
| 3-Perfluoropentyl propanoic acid | 1000 | 50.00 | 1 | 98.000 | 1 | 10 | 5.00000 |

Final Concentrations:

| Analyte: | Conc (ug/mL): |
|----------------------------------|---------------|
| 3-Perfluoroheptyl propanoic acid | 5.00000 |
| 3-Perfluoropentyl propanoic acid | 5.00000 |
| 3-perfluoropropyl propanoic Acid | 5.00000 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| 200811-01 | Pipette | B909301606 |
| 200811-02 | Pipette | B909301606 |
| 200811-03 | Pipette | B909301606 |

Solution Prepared By: Bailey, Kevin Date Prepared: 8/11/2020 Expiration Date: 8/11/2021

Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: LC Laboratory: Freezer - F0111

Comment:

Approved By: Schumitz, Denise Date: 8/12/2020 8:20:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LC84

Description: PFAS - DoD High ICAL Stock

Stock Id: 200914-01

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---|--------------------|--------------------------|-------------------|---------|-----------------|-----------------|--------------------------|
| 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic aci | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| 1H,1H,2H,2H-Perfluorodecane sulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| 1H,1H,2H,2H-Perfluorohexane sulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| 1H,1H,2H,2H-Perfluorooctane sulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic aci | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Adona | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Hexafluoropropylene oxide dimer acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| N-ethylperfluoro-octanesulfonamidoacetic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-butanefluoride | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-decanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-1-heptanesulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-hexanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-1-nonanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-1-octanesulfonamide | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-octanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| perfluoro-1-pentanesulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-butanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-decanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-dodecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-heptanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-hexanoic acid | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-n-octanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluorononanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-pentanoic acid | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-n-tetradecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-tridecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-undecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |

Stock Id: LC24

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|----------------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 3-Perfluoroheptyl propanoic acid | 400 | 5.00 | --- | --- | 1 | 20 | 0.10000 |
| 3-Perfluoropentyl propanoic acid | 400 | 5.00 | --- | --- | 1 | 20 | 0.10000 |
| 3-perfluoropropyl propanoic Acid | 400 | 5.00 | --- | --- | 1 | 20 | 0.10000 |

Final Concentrations:

| | | |
|---|---------------------------------|-----------------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 9/15/2020 | Expiration Date: 8/11/2021 |
| Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 96/4 methanol/milli-q (RP-200915-3)

Approved By: Schumitz, Denise **Date:** 9/16/2020 8:25:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LC84

Description: PFAS - DoD High ICAL Stock

| Analyte: | Conc (ug/mL): |
|--|---------------|
| 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid | .10000 |
| 1H,1H,2H,2H-Perfluorodecane sulfonate | .10100 |
| 1H,1H,2H,2H-Perfluorohexane sulfonate | .10000 |
| 1H,1H,2H,2H-Perfluorooctane sulfonate | .10000 |
| 3-Perfluoroheptyl propanoic acid | .10000 |
| 3-Perfluoropentyl propanoic acid | .10000 |
| 3-perfluoropropyl propanoic Acid | .10000 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | .10000 |
| Adona | .10000 |
| Hexafluoropropylene oxide dimer acid | .10000 |
| N-ethylperfluoro-octanesulfonamidoacetic acid | .10000 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid | .10000 |
| Perfluoro-1-butanedisulfonate | .10000 |
| Perfluoro-1-decanedisulfonate | .10100 |
| Perfluoro-1-heptanedisulfonate | .10000 |
| Perfluoro-1-hexanedisulfonate | .10100 |
| Perfluoro-1-nonanedisulfonate | .10100 |
| Perfluoro-1-octanesulfonamide | .10000 |
| Perfluoro-1-octanesulfonate | .10100 |
| perfluoro-1-pentanesulfonate | .10000 |
| Perfluoro-n-butanedioic Acid | .10000 |
| Perfluoro-n-decanedioic Acid | .10000 |
| Perfluoro-n-dodecanedioic acid | .10000 |
| Perfluoro-n-heptanedioic Acid | .10000 |
| Perfluoro-n-hexanedioic acid | .10100 |
| Perfluoro-n-octanedioic Acid | .10000 |
| Perfluorononanedioic Acid | .10000 |
| Perfluoro-n-pentanedioic acid | .10100 |
| Perfluoro-n-tetradecanedioic acid | .10000 |
| Perfluoro-n-tridecanedioic acid | .10000 |
| Perfluoro-n-undecanedioic acid | .10000 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| 200914-01 | Pipette | B1100330B |
| LC24 | Pipette | B1100330B |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 9/15/2020 **Expiration Date:** 8/11/2021

Solution Volume : 40 mL X 1 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q (RP-200915-3)

Approved By: Schumitz, Denise **Date:** 9/16/2020 8:25:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **LC85**

Description: PFAS - DoD Low ICAL Stock

Stock Id: **LC84**

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic aci | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| 1H,1H,2H,2H-Perfluorodecane sulfonate | 500 | 0.10 | --- | --- | 1 | 5 | 0.01010 |
| 1H,1H,2H,2H-Perfluorohexane sulfonate | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| 1H,1H,2H,2H-Perfluorooctane sulfonate | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| 3-Perfluoroheptyl propanoic acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| 3-Perfluoropentyl propanoic acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| 3-perfluoropropyl propanoic Acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic aci | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Adona | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Hexafluoropropylene oxide dimer acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| N-ethylperfluoro-octanesulfonamidoacetic acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-1-butanefluoride | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-1-decanesulfonate | 500 | 0.10 | --- | --- | 1 | 5 | 0.01010 |
| Perfluoro-1-heptanesulfonate | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-1-hexanesulfonate | 500 | 0.10 | --- | --- | 1 | 5 | 0.01010 |
| Perfluoro-1-nonanesulfonate | 500 | 0.10 | --- | --- | 1 | 5 | 0.01010 |
| Perfluoro-1-octanesulfonamide | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-1-octanesulfonate | 500 | 0.10 | --- | --- | 1 | 5 | 0.01010 |
| perfluoro-1-pentanesulfonate | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-n-butanoic Acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-n-decanoic Acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-n-dodecanoic acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-n-heptanoic Acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-n-hexanoic acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01010 |
| Perfluoro-n-octanoic Acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluorononanoic Acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-n-pentanoic acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01010 |
| Perfluoro-n-tetradecanoic acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-n-tridecanoic acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |
| Perfluoro-n-undecanoic acid | 500 | 0.10 | --- | --- | 1 | 5 | 0.01000 |

Final Concentrations:

| Analyte: | Conc (ug/mL): |
|--|---------------|
| 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid | .01000 |
| 1H,1H,2H,2H-Perfluorodecane sulfonate | .01010 |

Solution Prepared By: Bailey, Kevin Date Prepared: 9/15/2020 Expiration Date: 8/11/2021

Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q (RP-200915-3)

Approved By: Schumitz, Denise Date: 9/16/2020 8:25:00 AM



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: LC85

Description: PFAS - DoD Low ICAL Stock

| | |
|--|--------|
| 1H,1H,2H,2H-Perfluorohexane sulfonate | .01000 |
| 1H,1H,2H,2H-Perfluorooctane sulfonate | .01000 |
| 3-Perfluoroheptyl propanoic acid | .01000 |
| 3-Perfluoropentyl propanoic acid | .01000 |
| 3-perfluoropropyl propanoic Acid | .01000 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | .01000 |
| Adona | .01000 |
| Hexafluoropropylene oxide dimer acid | .01000 |
| N-ethylperfluoro-octanesulfonamidoacetic acid | .01000 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid | .01000 |
| Perfluoro-1-butanedisulfonate | .01000 |
| Perfluoro-1-decanedisulfonate | .01010 |
| Perfluoro-1-heptanedisulfonate | .01000 |
| Perfluoro-1-hexanedisulfonate | .01010 |
| Perfluoro-1-nonanedisulfonate | .01010 |
| Perfluoro-1-octanesulfonamide | .01000 |
| Perfluoro-1-octanedisulfonate | .01010 |
| perfluoro-1-pentanedisulfonate | .01000 |
| Perfluoro-n-butanedisulfonate | .01000 |
| Perfluoro-n-decanedisulfonate | .01000 |
| Perfluoro-n-dodecanedisulfonate | .01000 |
| Perfluoro-n-heptanedisulfonate | .01000 |
| Perfluoro-n-hexanedisulfonate | .01010 |
| Perfluoro-n-octanedisulfonate | .01000 |
| Perfluorononanedisulfonate | .01000 |
| Perfluoro-n-pentanedisulfonate | .01010 |
| Perfluoro-n-tetradecanedisulfonate | .01000 |
| Perfluoro-n-tridecanedisulfonate | .01000 |
| Perfluoro-n-undecanedisulfonate | .01000 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LC84 | Pipette | B1100330B |

| | | |
|---|---------------------------------|-----------------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 9/15/2020 | Expiration Date: 8/11/2021 |
| Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 96/4 methanol/milli-q (RP-200915-3)

Approved By: Schumitz, Denise **Date:** 9/16/2020 8:25:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **LD43**

Description: PFAS - DoD Second Source LCS/MS Solution

Stock Id: **200909-01**

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---|--------------------|--------------------------|-------------------|---------|-----------------|-----------------|--------------------------|
| 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic aci | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| 1H,1H,2H,2H-Perfluorodecane sulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| 1H,1H,2H,2H-Perfluorohexane sulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| 1H,1H,2H,2H-Perfluorooctane sulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic aci | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Adona | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Hexafluoropropylene oxide dimer acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| N-ethylperfluoro-octanesulfonamidoacetic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-butanefluoride | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-decanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-1-heptanesulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-hexanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-1-nonanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-1-octanesulfonamide | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-octanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| perfluoro-1-pentanesulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-butanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-decanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-dodecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-heptanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-hexanoic acid | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-n-octanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluorononanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-pentanoic acid | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-n-tetradecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-tridecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-undecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |

Stock Id: **LC24**

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|----------------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 3-Perfluoroheptyl propanoic acid | 400 | 5.00 | --- | --- | 1 | 20 | 0.10000 |
| 3-Perfluoropentyl propanoic acid | 400 | 5.00 | --- | --- | 1 | 20 | 0.10000 |
| 3-perfluoropropyl propanoic Acid | 400 | 5.00 | --- | --- | 1 | 20 | 0.10000 |

Final Concentrations:

| | | |
|---|---------------------------------|-----------------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 10/6/2020 | Expiration Date: 8/11/2021 |
| Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 80/20 methanol/milli-q (RP-201006-1)

Approved By: Schumitz, Denise Date: 10/8/2020 10:54:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD43

Description: PFAS - DoD Second Source LCS/MS Solution

| Analyte: | Conc (ug/mL): |
|--|---------------|
| 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid | .10000 |
| 1H,1H,2H,2H-Perfluorodecane sulfonate | .10100 |
| 1H,1H,2H,2H-Perfluorohexane sulfonate | .10000 |
| 1H,1H,2H,2H-Perfluorooctane sulfonate | .10000 |
| 3-Perfluoroheptyl propanoic acid | .10000 |
| 3-Perfluoropentyl propanoic acid | .10000 |
| 3-perfluoropropyl propanoic Acid | .10000 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | .10000 |
| Adona | .10000 |
| Hexafluoropropylene oxide dimer acid | .10000 |
| N-ethylperfluoro-octanesulfonamidoacetic acid | .10000 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid | .10000 |
| Perfluoro-1-butanedisulfonate | .10000 |
| Perfluoro-1-decanedisulfonate | .10100 |
| Perfluoro-1-heptanedisulfonate | .10000 |
| Perfluoro-1-hexanedisulfonate | .10100 |
| Perfluoro-1-nonanedisulfonate | .10100 |
| Perfluoro-1-octanesulfonamide | .10000 |
| Perfluoro-1-octanesulfonate | .10100 |
| perfluoro-1-pentanesulfonate | .10000 |
| Perfluoro-n-butanoic Acid | .10000 |
| Perfluoro-n-decanoic Acid | .10000 |
| Perfluoro-n-dodecanoic acid | .10000 |
| Perfluoro-n-heptanoic Acid | .10000 |
| Perfluoro-n-hexanoic acid | .10100 |
| Perfluoro-n-octanoic Acid | .10000 |
| Perfluorononanoic Acid | .10000 |
| Perfluoro-n-pentanoic acid | .10100 |
| Perfluoro-n-tetradecanoic acid | .10000 |
| Perfluoro-n-tridecanoic acid | .10000 |
| Perfluoro-n-undecanoic acid | .10000 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| 200909-01 | Pipette | B820865811 |
| LC24 | Pipette | B820865811 |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 10/6/2020 **Expiration Date:** 8/11/2021

Solution Volume : 40 mL X 1 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 80/20 methanol/milli-q (RP-201006-1)

Approved By: Schumitz, Denise **Date:** 10/8/2020 10:54:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD44

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard

Stock Id: LB74

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-4:2FTS | 2000 | 0.93 | --- | --- | 1 | 200 | 0.00934 |
| 13C2-6:2FTS | 2000 | 0.95 | --- | --- | 1 | 200 | 0.00950 |
| 13C2-8:2FTS | 2000 | 0.96 | --- | --- | 1 | 200 | 0.00958 |
| 13C2-PFDoA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C2-PFTeDA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C3-HFPO-DA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C3-PFBS | 2000 | 0.93 | --- | --- | 1 | 200 | 0.00930 |
| 13C3-PFHxS | 2000 | 0.95 | --- | --- | 1 | 200 | 0.00946 |
| 13C4-PFBA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C4-PFHpA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C5-PFHxA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C5-PFPeA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C6-PFDA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C7-PFUnA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C8-FOSA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C8-PFOA | 2000 | 0.98 | --- | --- | 1 | 200 | 0.00978 |
| 13C8-PFOS | 2000 | 0.96 | --- | --- | 1 | 200 | 0.00956 |
| 13C9-PFNA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| d3-MeFOSAA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| d5-EtFOSAA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |

Final Concentrations:

| Analyte: | Conc (ug/mL): |
|--------------|---------------|
| 13C2-4:2FTS | .00934 |
| 13C2-6:2FTS | .00950 |
| 13C2-8:2FTS | .00958 |
| 13C2-PFDoA | .01000 |
| 13C2-PFTeDA | .01000 |
| 13C3-HFPO-DA | .01000 |
| 13C3-PFBS | .00930 |
| 13C3-PFHxS | .00946 |
| 13C4-PFBA | .01000 |
| 13C4-PFHpA | .01000 |
| 13C5-PFHxA | .01000 |
| 13C5-PFPeA | .01000 |
| 13C6-PFDA | .01000 |

Solution Prepared By: Bailey, Kevin Date Prepared: 10/6/2020 Expiration Date: 7/21/2021

Solution Volume : 40 mL X 8 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q water (RP-201006-13)

Approved By: Schumitz, Denise Date: 10/7/2020 8:51:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD44

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard

| | |
|------------|--------|
| 13C7-PFUnA | .01000 |
| 13C8-FOSA | .01000 |
| 13C8-PFOA | .00978 |
| 13C8-PFOS | .00956 |
| 13C9-PFNA | .01000 |
| d3-MeFOSAA | .01000 |
| d5-EtFOSAA | .01000 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB74 | Pipette | B820865811 |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 10/6/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 8 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q water (RP-201006-13)

Approved By: Schumitz, Denise **Date:** 10/7/2020 8:51:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **LD73**

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

Stock Id: **LB74**

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-4:2FTS | 5000 | 0.93 | --- | --- | 1 | 50 | 0.09340 |
| 13C2-6:2FTS | 5000 | 0.95 | --- | --- | 1 | 50 | 0.09500 |
| 13C2-8:2FTS | 5000 | 0.96 | --- | --- | 1 | 50 | 0.09580 |
| 13C2-PFDoA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C2-PFTeDA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C3-HFPO-DA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C3-PFBS | 5000 | 0.93 | --- | --- | 1 | 50 | 0.09300 |
| 13C3-PFHxS | 5000 | 0.95 | --- | --- | 1 | 50 | 0.09460 |
| 13C4-PFBA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C4-PFHpA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C5-PFHxA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C5-PFPeA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C6-PFDA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C7-PFUnA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C8-FOSA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| 13C8-PFOA | 5000 | 0.98 | --- | --- | 1 | 50 | 0.09780 |
| 13C8-PFOS | 5000 | 0.96 | --- | --- | 1 | 50 | 0.09560 |
| 13C9-PFNA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| d3-MeFOSAA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |
| d5-EtFOSAA | 5000 | 1.00 | --- | --- | 1 | 50 | 0.10000 |

Final Concentrations:

| Analyte: | Conc (ug/mL): |
|--------------|---------------|
| 13C2-4:2FTS | .09340 |
| 13C2-6:2FTS | .09500 |
| 13C2-8:2FTS | .09580 |
| 13C2-PFDoA | .10000 |
| 13C2-PFTeDA | .10000 |
| 13C3-HFPO-DA | .10000 |
| 13C3-PFBS | .09300 |
| 13C3-PFHxS | .09460 |
| 13C4-PFBA | .10000 |
| 13C4-PFHpA | .10000 |
| 13C5-PFHxA | .10000 |
| 13C5-PFPeA | .10000 |
| 13C6-PFDA | .10000 |

Solution Prepared By: Bailey, Kevin Date Prepared: 10/22/2020 Expiration Date: 7/21/2021

Solution Volume : 40 mL X 5 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q (RP-201022-2)

Approved By: Schumitz, Denise Date: 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD73

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

| | |
|------------|--------|
| 13C7-PFUnA | .10000 |
| 13C8-FOSA | .10000 |
| 13C8-PFOA | .09780 |
| 13C8-PFOS | .09560 |
| 13C9-PFNA | .10000 |
| d3-MeFOSAA | .10000 |
| d5-EtFOSAA | .10000 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB74 | Pipette | B820865811 |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 10/22/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 5 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q (RP-201022-2)

Approved By: Schumitz, Denise **Date:** 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD74

Description: PFAS - DoD Calibration L1

Stock Id: LB78

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-PFDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C2-PFOA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-PFBA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C4-PFOS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |

Stock Id: LC85

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|----------------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 3-Perfluoroheptyl propanoic acid | 250 | 0.01 | --- | --- | 1 | 10 | 0.00025 |
| 3-Perfluoropentyl propanoic acid | 250 | 0.01 | --- | --- | 1 | 10 | 0.00025 |
| 3-perfluoropropyl propanoic Acid | 250 | 0.01 | --- | --- | 1 | 10 | 0.00025 |

Stock Id: LD73

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|-------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-4:2FTS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00117 |
| 13C2-6:2FTS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |
| 13C2-8:2FTS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00120 |
| 13C2-PFDoA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C2-PFTeDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-HFPO-DA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-PFBS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00116 |
| 13C3-PFHxS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00118 |
| 13C4-PFBA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C4-PFHpA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C5-PFHxA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C5-PFPeA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C6-PFDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C7-PFU _n A | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C8-FOSA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C8-PFOA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00122 |
| 13C8-PFOS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |
| 13C9-PFNA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| d3-MeFOSAA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| d5-EtFOSAA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |

Final Concentrations:

| | | |
|---|---------------------------|----------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 10/22/2020 | Expiration Date: 7/21/2021 |
| Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise Date: 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD74

Description: PFAS - DoD Calibration L1

| Analyte: | Conc (ug/mL): |
|----------------------------------|---------------|
| 13C2-4:2FTS | .00117 |
| 13C2-6:2FTS | .00119 |
| 13C2-8:2FTS | .00120 |
| 13C2-PFDA | .00125 |
| 13C2-PFDoA | .00125 |
| 13C2-PFOA | .00125 |
| 13C2-PFTeDA | .00125 |
| 13C3-HFPO-DA | .00125 |
| 13C3-PFBA | .00125 |
| 13C3-PFBS | .00116 |
| 13C3-PFHxS | .00118 |
| 13C4-PFBA | .00125 |
| 13C4-PFHpA | .00125 |
| 13C4-PFOS | .00119 |
| 13C5-PFHxA | .00125 |
| 13C5-PFPeA | .00125 |
| 13C6-PFDA | .00125 |
| 13C7-PFUnA | .00125 |
| 13C8-FOSA | .00125 |
| 13C8-PFOA | .00122 |
| 13C8-PFOS | .00119 |
| 13C9-PFNA | .00125 |
| 3-Perfluoroheptyl propanoic acid | .00025 |
| 3-Perfluoropentyl propanoic acid | .00025 |
| 3-perfluoropropyl propanoic Acid | .00025 |
| d3-MeFOSAA | .00125 |
| d5-EtFOSAA | .00125 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB78 | Pipette | B814657482 |
| LC85 | Pipette | B814657482 |
| LD73 | Pipette | B814657482 |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 10/22/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 1 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise **Date:** 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD75

Description: PFAS - DoD Calibration L2

Stock Id: LB78

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-PFDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C2-PFOA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-PFBA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C4-PFOS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |

Stock Id: LC85

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|----------------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 3-Perfluoroheptyl propanoic acid | 500 | 0.01 | --- | --- | 1 | 10 | 0.00050 |
| 3-Perfluoropentyl propanoic acid | 500 | 0.01 | --- | --- | 1 | 10 | 0.00050 |
| 3-perfluoropropyl propanoic Acid | 500 | 0.01 | --- | --- | 1 | 10 | 0.00050 |

Stock Id: LD73

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|-------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-4:2FTS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00117 |
| 13C2-6:2FTS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |
| 13C2-8:2FTS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00120 |
| 13C2-PFDoA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C2-PFTeDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-HFPO-DA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-PFBS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00116 |
| 13C3-PFHxS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00118 |
| 13C4-PFBA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C4-PFHpA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C5-PFHxA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C5-PFPeA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C6-PFDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C7-PFU _n A | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C8-FOSA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C8-PFOA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00122 |
| 13C8-PFOS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |
| 13C9-PFNA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| d3-MeFOSAA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| d5-EtFOSAA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |

Final Concentrations:

| | | |
|---|---------------------------|----------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 10/22/2020 | Expiration Date: 7/21/2021 |
| Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise Date: 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD75

Description: PFAS - DoD Calibration L2

| Analyte: | Conc (ug/mL): |
|----------------------------------|---------------|
| 13C2-4:2FTS | .00117 |
| 13C2-6:2FTS | .00119 |
| 13C2-8:2FTS | .00120 |
| 13C2-PFDA | .00125 |
| 13C2-PFDoA | .00125 |
| 13C2-PFOA | .00125 |
| 13C2-PFTeDA | .00125 |
| 13C3-HFPO-DA | .00125 |
| 13C3-PFBA | .00125 |
| 13C3-PFBS | .00116 |
| 13C3-PFHxS | .00118 |
| 13C4-PFBA | .00125 |
| 13C4-PFHpA | .00125 |
| 13C4-PFOS | .00119 |
| 13C5-PFHxA | .00125 |
| 13C5-PFPeA | .00125 |
| 13C6-PFDA | .00125 |
| 13C7-PFUnA | .00125 |
| 13C8-FOSA | .00125 |
| 13C8-PFOA | .00122 |
| 13C8-PFOS | .00119 |
| 13C9-PFNA | .00125 |
| 3-Perfluoroheptyl propanoic acid | .00050 |
| 3-Perfluoropentyl propanoic acid | .00050 |
| 3-perfluoropropyl propanoic Acid | .00050 |
| d3-MeFOSAA | .00125 |
| d5-EtFOSAA | .00125 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB78 | Pipette | B814657482 |
| LC85 | Pipette | B820865811 |
| LD73 | Pipette | B814657482 |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 10/22/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 1 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise **Date:** 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD76

Description: PFAS - DoD Calibration L3

Stock Id: LB78

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-PFDA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C2-PFOA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C3-PFBA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C4-PFOS | 500 | 0.10 | --- | --- | 1 | 40 | 0.00119 |

Stock Id: LC84

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|----------------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 3-Perfluoroheptyl propanoic acid | 400 | 0.10 | --- | --- | 1 | 40 | 0.00100 |
| 3-Perfluoropentyl propanoic acid | 400 | 0.10 | --- | --- | 1 | 40 | 0.00100 |
| 3-perfluoropropyl propanoic Acid | 400 | 0.10 | --- | --- | 1 | 40 | 0.00100 |

Stock Id: LD73

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|-------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-4:2FTS | 500 | 0.09 | --- | --- | 1 | 40 | 0.00117 |
| 13C2-6:2FTS | 500 | 0.10 | --- | --- | 1 | 40 | 0.00119 |
| 13C2-8:2FTS | 500 | 0.10 | --- | --- | 1 | 40 | 0.00120 |
| 13C2-PFDoA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C2-PFTeDA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C3-HFPO-DA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C3-PFBS | 500 | 0.09 | --- | --- | 1 | 40 | 0.00116 |
| 13C3-PFHxS | 500 | 0.09 | --- | --- | 1 | 40 | 0.00118 |
| 13C4-PFBA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C4-PFHpA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C5-PFHxA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C5-PFPeA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C6-PFDA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C7-PFU _n A | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C8-FOSA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C8-PFOA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00122 |
| 13C8-PFOS | 500 | 0.10 | --- | --- | 1 | 40 | 0.00119 |
| 13C9-PFNA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| d3-MeFOSAA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| d5-EtFOSAA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |

Final Concentrations:

| | | |
|-------------------------------------|---------------------------|----------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 10/22/2020 | Expiration Date: 7/21/2021 |
|-------------------------------------|---------------------------|----------------------------|

| | |
|-----------------------------------|---|
| Solution Volume : 40 mL X 1 Vials | Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 |
|-----------------------------------|---|

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise Date: 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD76

Description: PFAS - DoD Calibration L3

| Analyte: | Conc (ug/mL): |
|----------------------------------|---------------|
| 13C2-4:2FTS | .00117 |
| 13C2-6:2FTS | .00119 |
| 13C2-8:2FTS | .00120 |
| 13C2-PFDA | .00125 |
| 13C2-PFDoA | .00125 |
| 13C2-PFOA | .00125 |
| 13C2-PFTeDA | .00125 |
| 13C3-HFPO-DA | .00125 |
| 13C3-PFBA | .00125 |
| 13C3-PFBS | .00116 |
| 13C3-PFHxS | .00118 |
| 13C4-PFBA | .00125 |
| 13C4-PFHpA | .00125 |
| 13C4-PFOS | .00119 |
| 13C5-PFHxA | .00125 |
| 13C5-PFPeA | .00125 |
| 13C6-PFDA | .00125 |
| 13C7-PFUnA | .00125 |
| 13C8-FOSA | .00125 |
| 13C8-PFOA | .00122 |
| 13C8-PFOS | .00119 |
| 13C9-PFNA | .00125 |
| 3-Perfluoroheptyl propanoic acid | .00100 |
| 3-Perfluoropentyl propanoic acid | .00100 |
| 3-perfluoropropyl propanoic Acid | .00100 |
| d3-MeFOSAA | .00125 |
| d5-EtFOSAA | .00125 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB78 | Pipette | B820865811 |
| LC84 | Pipette | B820865811 |
| LD73 | Pipette | B820865811 |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 10/22/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 1 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise **Date:** 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD77

Description: PFAS - DoD Calibration L4

Stock Id: LB78

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-PFDA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C2-PFOA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C3-PFBA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C4-PFOS | 500 | 0.10 | --- | --- | 1 | 40 | 0.00119 |

Stock Id: LC84

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|----------------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 3-Perfluoroheptyl propanoic acid | 1000 | 0.10 | --- | --- | 1 | 40 | 0.00250 |
| 3-Perfluoropentyl propanoic acid | 1000 | 0.10 | --- | --- | 1 | 40 | 0.00250 |
| 3-perfluoropropyl propanoic Acid | 1000 | 0.10 | --- | --- | 1 | 40 | 0.00250 |

Stock Id: LD73

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|-------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-4:2FTS | 500 | 0.09 | --- | --- | 1 | 40 | 0.00117 |
| 13C2-6:2FTS | 500 | 0.10 | --- | --- | 1 | 40 | 0.00119 |
| 13C2-8:2FTS | 500 | 0.10 | --- | --- | 1 | 40 | 0.00120 |
| 13C2-PFDoA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C2-PFTeDA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C3-HFPO-DA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C3-PFBS | 500 | 0.09 | --- | --- | 1 | 40 | 0.00116 |
| 13C3-PFHxS | 500 | 0.09 | --- | --- | 1 | 40 | 0.00118 |
| 13C4-PFBA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C4-PFHpA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C5-PFHxA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C5-PFPeA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C6-PFDA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C7-PFU _n A | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C8-FOSA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| 13C8-PFOA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00122 |
| 13C8-PFOS | 500 | 0.10 | --- | --- | 1 | 40 | 0.00119 |
| 13C9-PFNA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| d3-MeFOSAA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |
| d5-EtFOSAA | 500 | 0.10 | --- | --- | 1 | 40 | 0.00125 |

Final Concentrations:

| | | |
|---|---------------------------|----------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 10/22/2020 | Expiration Date: 7/21/2021 |
| Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise Date: 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD77

Description: PFAS - DoD Calibration L4

| Analyte: | Conc (ug/mL): |
|----------------------------------|---------------|
| 13C2-4:2FTS | .00117 |
| 13C2-6:2FTS | .00119 |
| 13C2-8:2FTS | .00120 |
| 13C2-PFDA | .00125 |
| 13C2-PFDoA | .00125 |
| 13C2-PFOA | .00125 |
| 13C2-PFTeDA | .00125 |
| 13C3-HFPO-DA | .00125 |
| 13C3-PFBA | .00125 |
| 13C3-PFBS | .00116 |
| 13C3-PFHxS | .00118 |
| 13C4-PFBA | .00125 |
| 13C4-PFHpA | .00125 |
| 13C4-PFOS | .00119 |
| 13C5-PFHxA | .00125 |
| 13C5-PFPeA | .00125 |
| 13C6-PFDA | .00125 |
| 13C7-PFUnA | .00125 |
| 13C8-FOSA | .00125 |
| 13C8-PFOA | .00122 |
| 13C8-PFOS | .00119 |
| 13C9-PFNA | .00125 |
| 3-Perfluoroheptyl propanoic acid | .00250 |
| 3-Perfluoropentyl propanoic acid | .00250 |
| 3-perfluoropropyl propanoic Acid | .00250 |
| d3-MeFOSAA | .00125 |
| d5-EtFOSAA | .00125 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB78 | Pipette | B820865811 |
| LC84 | Pipette | B820865811 |
| LD73 | Pipette | B820865811 |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 10/22/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 1 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise **Date:** 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD78

Description: PFAS - DoD Calibration L5

Stock Id: LB78

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-PFDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C2-PFOA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-PFBA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C4-PFOS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |

Stock Id: LC84

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|----------------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 3-Perfluoroheptyl propanoic acid | 1000 | 0.10 | --- | --- | 1 | 10 | 0.01000 |
| 3-Perfluoropentyl propanoic acid | 1000 | 0.10 | --- | --- | 1 | 10 | 0.01000 |
| 3-perfluoropropyl propanoic Acid | 1000 | 0.10 | --- | --- | 1 | 10 | 0.01000 |

Stock Id: LD73

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|-------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-4:2FTS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00117 |
| 13C2-6:2FTS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |
| 13C2-8:2FTS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00120 |
| 13C2-PFDoA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C2-PFTeDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-HFPO-DA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-PFBS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00116 |
| 13C3-PFHxS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00118 |
| 13C4-PFBA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C4-PFHpA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C5-PFHxA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C5-PFPeA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C6-PFDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C7-PFU _n A | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C8-FOSA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C8-PFOA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00122 |
| 13C8-PFOS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |
| 13C9-PFNA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| d3-MeFOSAA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| d5-EtFOSAA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |

Final Concentrations:

| | | |
|---|---------------------------|----------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 10/22/2020 | Expiration Date: 7/21/2021 |
| Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise Date: 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD78

Description: PFAS - DoD Calibration L5

| Analyte: | Conc (ug/mL): |
|----------------------------------|---------------|
| 13C2-4:2FTS | .00117 |
| 13C2-6:2FTS | .00119 |
| 13C2-8:2FTS | .00120 |
| 13C2-PFDA | .00125 |
| 13C2-PFDoA | .00125 |
| 13C2-PFOA | .00125 |
| 13C2-PFTeDA | .00125 |
| 13C3-HFPO-DA | .00125 |
| 13C3-PFBA | .00125 |
| 13C3-PFBS | .00116 |
| 13C3-PFHxS | .00118 |
| 13C4-PFBA | .00125 |
| 13C4-PFHpA | .00125 |
| 13C4-PFOS | .00119 |
| 13C5-PFHxA | .00125 |
| 13C5-PFPeA | .00125 |
| 13C6-PFDA | .00125 |
| 13C7-PFUnA | .00125 |
| 13C8-FOSA | .00125 |
| 13C8-PFOA | .00122 |
| 13C8-PFOS | .00119 |
| 13C9-PFNA | .00125 |
| 3-Perfluoroheptyl propanoic acid | .01000 |
| 3-Perfluoropentyl propanoic acid | .01000 |
| 3-perfluoropropyl propanoic Acid | .01000 |
| d3-MeFOSAA | .00125 |
| d5-EtFOSAA | .00125 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB78 | Pipette | B814657482 |
| LC84 | Pipette | B820865811 |
| LD73 | Pipette | B814657482 |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 10/22/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 1 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise **Date:** 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **LD79**

Description: PFAS - DoD Calibration L6

Stock Id: LB78

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-PFDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C2-PFOA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-PFBA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C4-PFOS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |

Stock Id: LC84

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|----------------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 3-Perfluoroheptyl propanoic acid | 2500 | 0.10 | --- | --- | 1 | 10 | 0.02500 |
| 3-Perfluoropentyl propanoic acid | 2500 | 0.10 | --- | --- | 1 | 10 | 0.02500 |
| 3-perfluoropropyl propanoic Acid | 2500 | 0.10 | --- | --- | 1 | 10 | 0.02500 |

Stock Id: LD73

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|-------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-4:2FTS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00117 |
| 13C2-6:2FTS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |
| 13C2-8:2FTS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00120 |
| 13C2-PFDoA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C2-PFTeDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-HFPO-DA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-PFBS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00116 |
| 13C3-PFHxS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00118 |
| 13C4-PFBA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C4-PFHpA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C5-PFHxA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C5-PFPeA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C6-PFDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C7-PFU _n A | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C8-FOSA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C8-PFOA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00122 |
| 13C8-PFOS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |
| 13C9-PFNA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| d3-MeFOSAA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| d5-EtFOSAA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |

Final Concentrations:

| | | |
|---|----------------------------------|-----------------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 10/22/2020 | Expiration Date: 7/21/2021 |
| Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise **Date:** 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD79

Description: PFAS - DoD Calibration L6

| Analyte: | Conc (ug/mL): |
|----------------------------------|---------------|
| 13C2-4:2FTS | .00117 |
| 13C2-6:2FTS | .00119 |
| 13C2-8:2FTS | .00120 |
| 13C2-PFDA | .00125 |
| 13C2-PFDoA | .00125 |
| 13C2-PFOA | .00125 |
| 13C2-PFTeDA | .00125 |
| 13C3-HFPO-DA | .00125 |
| 13C3-PFBA | .00125 |
| 13C3-PFBS | .00116 |
| 13C3-PFHxS | .00118 |
| 13C4-PFBA | .00125 |
| 13C4-PFHpA | .00125 |
| 13C4-PFOS | .00119 |
| 13C5-PFHxA | .00125 |
| 13C5-PFPeA | .00125 |
| 13C6-PFDA | .00125 |
| 13C7-PFUnA | .00125 |
| 13C8-FOSA | .00125 |
| 13C8-PFOA | .00122 |
| 13C8-PFOS | .00119 |
| 13C9-PFNA | .00125 |
| 3-Perfluoroheptyl propanoic acid | .02500 |
| 3-Perfluoropentyl propanoic acid | .02500 |
| 3-perfluoropropyl propanoic Acid | .02500 |
| d3-MeFOSAA | .00125 |
| d5-EtFOSAA | .00125 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB78 | Pipette | B814657482 |
| LC84 | Pipette | B820865811 |
| LD73 | Pipette | B814657482 |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 10/22/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 1 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise **Date:** 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LD81

Description: PFAS - DoD ICC

Stock Id: LB78

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-PFDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C2-PFOA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-PFBA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C4-PFOS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |

Stock Id: LD43

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic aci | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| 1H,1H,2H,2H-Perfluorodecane sulfonate | 250 | 0.10 | --- | --- | 1 | 10 | 0.00253 |
| 1H,1H,2H,2H-Perfluorohexane sulfonate | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| 1H,1H,2H,2H-Perfluorooctane sulfonate | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| 3-Perfluoroheptyl propanoic acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| 3-Perfluoropentyl propanoic acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| 3-perfluoropropyl propanoic Acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic aci | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Adona | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Hexafluoropropylene oxide dimer acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| N-ethylperfluoro-octanesulfonamidoacetic acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-1-butanefluoride | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-1-decanesulfonate | 250 | 0.10 | --- | --- | 1 | 10 | 0.00253 |
| Perfluoro-1-heptanesulfonate | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-1-hexanesulfonate | 250 | 0.10 | --- | --- | 1 | 10 | 0.00253 |
| Perfluoro-1-nonanesulfonate | 250 | 0.10 | --- | --- | 1 | 10 | 0.00253 |
| Perfluoro-1-octanesulfonamide | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-1-octanesulfonate | 250 | 0.10 | --- | --- | 1 | 10 | 0.00253 |
| perfluoro-1-pentanesulfonate | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-n-butanoic Acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-n-decanoic Acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-n-dodecanoic acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-n-heptanoic Acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-n-hexanoic acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00253 |
| Perfluoro-n-octanoic Acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluorononanoic Acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-n-pentanoic acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00253 |

Solution Prepared By: Bailey, Kevin Date Prepared: 10/22/2020 Expiration Date: 7/21/2021

Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise Date: 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **LD81**

Description: PFAS - DoD ICC

| | | | | | | | |
|--------------------------------|-----|------|-----|-----|---|----|---------|
| Perfluoro-n-tetradecanoic acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-n-tridecanoic acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |
| Perfluoro-n-undecanoic acid | 250 | 0.10 | --- | --- | 1 | 10 | 0.00250 |

Stock Id: **LD73**

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-4:2FTS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00117 |
| 13C2-6:2FTS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |
| 13C2-8:2FTS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00120 |
| 13C2-PFDoA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C2-PFTeDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-HFPO-DA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C3-PFBS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00116 |
| 13C3-PFHxS | 125 | 0.09 | --- | --- | 1 | 10 | 0.00118 |
| 13C4-PFBA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C4-PFHpA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C5-PFHxA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C5-PFPeA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C6-PFDA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C7-PFUnA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C8-FOSA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| 13C8-PFOA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00122 |
| 13C8-PFOS | 125 | 0.10 | --- | --- | 1 | 10 | 0.00119 |
| 13C9-PFNA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| d3-MeFOSAA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |
| d5-EtFOSAA | 125 | 0.10 | --- | --- | 1 | 10 | 0.00125 |

Final Concentrations:

| Analyte: | Conc (ug/mL): |
|--|---------------|
| 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid | .00250 |
| 13C2-4:2FTS | .00117 |
| 13C2-6:2FTS | .00119 |
| 13C2-8:2FTS | .00120 |
| 13C2-PFDA | .00125 |
| 13C2-PFDoA | .00125 |
| 13C2-PFOA | .00125 |
| 13C2-PFTeDA | .00125 |
| 13C3-HFPO-DA | .00125 |
| 13C3-PFBA | .00125 |

Solution Prepared By: Bailey, Kevin Date Prepared: 10/22/2020 Expiration Date: 7/21/2021

Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise Date: 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: LD81

Description: PFAS - DoD ICC

| | |
|--|--------|
| 13C3-PFBS | .00116 |
| 13C3-PFHxS | .00118 |
| 13C4-PFBA | .00125 |
| 13C4-PFHpA | .00125 |
| 13C4-PFOS | .00119 |
| 13C5-PFHxA | .00125 |
| 13C5-PFPeA | .00125 |
| 13C6-PFDA | .00125 |
| 13C7-PFUnA | .00125 |
| 13C8-FOSA | .00125 |
| 13C8-PFOA | .00122 |
| 13C8-PFOS | .00119 |
| 13C9-PFNA | .00125 |
| 1H,1H,2H,2H-Perfluorodecane sulfonate | .00253 |
| 1H,1H,2H,2H-Perfluorohexane sulfonate | .00250 |
| 1H,1H,2H,2H-Perfluorooctane sulfonate | .00250 |
| 3-Perfluoroheptyl propanoic acid | .00250 |
| 3-Perfluoropentyl propanoic acid | .00250 |
| 3-perfluoropropyl propanoic Acid | .00250 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | .00250 |
| Adona | .00250 |
| d3-MeFOSAA | .00125 |
| d5-EtFOSAA | .00125 |
| Hexafluoropropylene oxide dimer acid | .00250 |
| N-ethylperfluoro-octanesulfonamidoacetic acid | .00250 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid | .00250 |
| Perfluoro-1-butanefulfonate | .00250 |
| Perfluoro-1-decanesulfonate | .00253 |
| Perfluoro-1-heptanesulfonate | .00250 |
| Perfluoro-1-hexanesulfonate | .00253 |
| Perfluoro-1-nonanesulfonate | .00253 |
| Perfluoro-1-octanesulfonamide | .00250 |
| Perfluoro-1-octanesulfonate | .00253 |
| perfluoro-1-pentanesulfonate | .00250 |
| Perfluoro-n-butanoic Acid | .00250 |
| Perfluoro-n-decanoic Acid | .00250 |
| Perfluoro-n-dodecanoic acid | .00250 |
| Perfluoro-n-heptanoic Acid | .00250 |
| Perfluoro-n-hexanoic acid | .00253 |

| | | |
|---|----------------------------------|-----------------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 10/22/2020 | Expiration Date: 7/21/2021 |
| Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise **Date:** 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: LD81

Description: PFAS - DoD ICC

| | |
|--------------------------------|--------|
| Perfluoro-n-octanoic Acid | .00250 |
| Perfluorononanoic Acid | .00250 |
| Perfluoro-n-pentanoic acid | .00253 |
| Perfluoro-n-tetradecanoic acid | .00250 |
| Perfluoro-n-tridecanoic acid | .00250 |
| Perfluoro-n-undecanoic acid | .00250 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB78 | Pipette | B814657482 |
| LD43 | Pipette | B814657482 |
| LD73 | Pipette | B814657482 |

| | | |
|---|----------------------------------|-----------------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 10/22/2020 | Expiration Date: 7/21/2021 |
| Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 80/20 methanol/milli-q (RP-201022-7)

Approved By: Schumitz, Denise **Date:** 10/23/2020 9:27:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LE23

Description: PFAS - DoD Second Source LCS/MS Solution

Stock Id: 201006-07

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---|--------------------|--------------------------|-------------------|---------|-----------------|-----------------|--------------------------|
| 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic aci | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| 1H,1H,2H,2H-Perfluorodecane sulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| 1H,1H,2H,2H-Perfluorohexane sulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| 1H,1H,2H,2H-Perfluorooctane sulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic aci | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Adona | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Hexafluoropropylene oxide dimer acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| N-ethylperfluoro-octanesulfonamidoacetic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-butanefluoride | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-decanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-1-heptanesulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-hexanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-1-nonanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-1-octanesulfonamide | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-1-octanesulfonate | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| perfluoro-1-pentanesulfonate | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-butanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-decanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-dodecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-heptanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-hexanoic acid | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-n-octanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluorononanoic Acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-pentanoic acid | 2000 | 1.01 | 1 | 100.000 | 1 | 20 | 0.10100 |
| Perfluoro-n-tetradecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-tridecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |
| Perfluoro-n-undecanoic acid | 2000 | 1.00 | 1 | 100.000 | 1 | 20 | 0.10000 |

Stock Id: LC24

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|----------------------------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 3-Perfluoroheptyl propanoic acid | 400 | 5.00 | --- | --- | 1 | 20 | 0.10000 |
| 3-Perfluoropentyl propanoic acid | 400 | 5.00 | --- | --- | 1 | 20 | 0.10000 |
| 3-perfluoropropyl propanoic Acid | 400 | 5.00 | --- | --- | 1 | 20 | 0.10000 |

Final Concentrations:

| | | |
|---|----------------------------------|-----------------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 10/29/2020 | Expiration Date: 8/11/2021 |
| Solution Volume : 40 mL X 1 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 80/20 methanol/milli-q (RP-201029-1)

Approved By: Schumitz, Denise **Date:** 10/29/2020 1:33:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LE23

Description: PFAS - DoD Second Source LCS/MS Solution

| Analyte: | Conc (ug/mL): |
|--|---------------|
| 11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid | .10000 |
| 1H,1H,2H,2H-Perfluorodecane sulfonate | .10100 |
| 1H,1H,2H,2H-Perfluorohexane sulfonate | .10000 |
| 1H,1H,2H,2H-Perfluorooctane sulfonate | .10000 |
| 3-Perfluoroheptyl propanoic acid | .10000 |
| 3-Perfluoropentyl propanoic acid | .10000 |
| 3-perfluoropropyl propanoic Acid | .10000 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | .10000 |
| Adona | .10000 |
| Hexafluoropropylene oxide dimer acid | .10000 |
| N-ethylperfluoro-octanesulfonamidoacetic acid | .10000 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid | .10000 |
| Perfluoro-1-butanedisulfonate | .10000 |
| Perfluoro-1-decanedisulfonate | .10100 |
| Perfluoro-1-heptanedisulfonate | .10000 |
| Perfluoro-1-hexanedisulfonate | .10100 |
| Perfluoro-1-nonanedisulfonate | .10100 |
| Perfluoro-1-octanesulfonamide | .10000 |
| Perfluoro-1-octanesulfonate | .10100 |
| perfluoro-1-pentanesulfonate | .10000 |
| Perfluoro-n-butanoic Acid | .10000 |
| Perfluoro-n-decanoic Acid | .10000 |
| Perfluoro-n-dodecanoic acid | .10000 |
| Perfluoro-n-heptanoic Acid | .10000 |
| Perfluoro-n-hexanoic acid | .10100 |
| Perfluoro-n-octanoic Acid | .10000 |
| Perfluorononanoic Acid | .10000 |
| Perfluoro-n-pentanoic acid | .10100 |
| Perfluoro-n-tetradecanoic acid | .10000 |
| Perfluoro-n-tridecanoic acid | .10000 |
| Perfluoro-n-undecanoic acid | .10000 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| 201006-07 | Pipette | B820865811 |
| LC24 | Pipette | B820865811 |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 10/29/2020 **Expiration Date:** 8/11/2021

Solution Volume : 40 mL X 1 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 80/20 methanol/milli-q (RP-201029-1)

Approved By: Schumitz, Denise **Date:** 10/29/2020 1:33:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **LE39**

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard

Stock Id: **LB74**

| Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| 13C2-4:2FTS | 2000 | 0.93 | --- | --- | 1 | 200 | 0.00934 |
| 13C2-6:2FTS | 2000 | 0.95 | --- | --- | 1 | 200 | 0.00950 |
| 13C2-8:2FTS | 2000 | 0.96 | --- | --- | 1 | 200 | 0.00958 |
| 13C2-PFDoA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C2-PFTeDA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C3-HFPO-DA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C3-PFBS | 2000 | 0.93 | --- | --- | 1 | 200 | 0.00930 |
| 13C3-PFHxS | 2000 | 0.95 | --- | --- | 1 | 200 | 0.00946 |
| 13C4-PFBA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C4-PFHpA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C5-PFHxA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C5-PFPeA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C6-PFDA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C7-PFUnA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C8-FOSA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| 13C8-PFOA | 2000 | 0.98 | --- | --- | 1 | 200 | 0.00978 |
| 13C8-PFOS | 2000 | 0.96 | --- | --- | 1 | 200 | 0.00956 |
| 13C9-PFNA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| d3-MeFOSAA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| d5-EtFOSAA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |

Final Concentrations:

| Analyte: | Conc (ug/mL): |
|--------------|---------------|
| 13C2-4:2FTS | .00934 |
| 13C2-6:2FTS | .00950 |
| 13C2-8:2FTS | .00958 |
| 13C2-PFDoA | .01000 |
| 13C2-PFTeDA | .01000 |
| 13C3-HFPO-DA | .01000 |
| 13C3-PFBS | .00930 |
| 13C3-PFHxS | .00946 |
| 13C4-PFBA | .01000 |
| 13C4-PFHpA | .01000 |
| 13C5-PFHxA | .01000 |
| 13C5-PFPeA | .01000 |
| 13C6-PFDA | .01000 |

Solution Prepared By: Bailey, Kevin Date Prepared: 11/4/2020 Expiration Date: 7/21/2021

Solution Volume : 40 mL X 8 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q water (RP-201104-11)

Approved By: Schumitz, Denise Date: 11/5/2020 10:09:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: LE39

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard

| | |
|------------|--------|
| 13C7-PFUnA | .01000 |
| 13C8-FOSA | .01000 |
| 13C8-PFOA | .00978 |
| 13C8-PFOS | .00956 |
| 13C9-PFNA | .01000 |
| d3-MeFOSAA | .01000 |
| d5-EtFOSAA | .01000 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB74 | Pipette | B820865811 |

Solution Prepared By: Bailey, Kevin **Date Prepared:** 11/4/2020 **Expiration Date:** 7/21/2021

Solution Volume : 40 mL X 8 Vials **Refrigerator/Freezer No:** VOC Laboratory: Refrigerator - R0121

Comment: 96/4 methanol/milli-q water (RP-201104-11)

Approved By: Schumitz, Denise **Date:** 11/5/2020 10:09:00 AM



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: LE40
Description: PFAS - DoD Internal Standard Spiking Solution

| Stock Id: LB75 | Chemical Name | Stock Amount uL | Initial Conc. (ug/mL) | Density (g/mL) | Purity | Conv. Factor | Final Vol mL | Concentration (ug/mL) |
|----------------|---------------|--------------------|--------------------------|-------------------|--------|-----------------|-----------------|--------------------------|
| | 13C2-PFDA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| | 13C2-PFOA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| | 13C3-PFBA | 2000 | 1.00 | --- | --- | 1 | 200 | 0.01000 |
| | 13C4-PFOS | 2000 | 0.96 | --- | --- | 1 | 200 | 0.00956 |

Final Concentrations:

| Analyte: | Conc (ug/mL): |
|-----------|---------------|
| 13C2-PFDA | .01000 |
| 13C2-PFOA | .01000 |
| 13C3-PFBA | .01000 |
| 13C4-PFOS | .00956 |

Syringes/Pipettes:

| Stock ID: | Type: | Battelle ID: |
|-----------|---------|--------------|
| LB75 | Pipette | B820865811 |

| | | |
|---|---------------------------------|-----------------------------------|
| Solution Prepared By: Bailey, Kevin | Date Prepared: 11/4/2020 | Expiration Date: 7/21/2021 |
| Solution Volume : 40 mL X 8 Vials Refrigerator/Freezer No: VOC Laboratory: Refrigerator - R0121 | | |

Comment: 96/4 methanol/milli-q (RP-201104-12)

Approved By: Schumitz, Denise **Date:** 11/5/2020 10:54:00 AM



It can be done

BDO Id: 200721-01

Reagent Receipt Report

Approved:

Name: MPFBA Received: 7/21/2020
 Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
 Catalogue No: MPFBA Expires: 5/13/2025
 Type: Solution Consumed: _____
 Lot No: MPFBA0420 Stored In: VOC Laboratory - R0123
 Quantity: 1 ea mL % Moisture: _____
 Description: MPFBA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------|----------|------------------------|---------|----------|----------------|--------------------------|--------------|--------------|
| 13C4-PFBA | BDO-2105 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | |

Total Analytes: 1

Notes:

Approved by: _____ Approved on: _____
 Authorized by: _____ Authorized on: _____

**WELLINGTON**
LABORATORIES**CERTIFICATE OF ANALYSIS**
DOCUMENTATION

PRODUCT CODE: MPFBA **LOT NUMBER:** MPFBA0420
COMPOUND: Perfluoro-n-[1,2,3,4-¹³C₄]butanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₄HF₇O₂ **MOLECULAR WEIGHT:** 218.01
CONCENTRATION: 50.0 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99%¹³C
(1,2,3,4-¹³C₄)
LAST TESTED: (mm/dd/yyyy) 05/13/2020
EXPIRY DATE: (mm/dd/yyyy) 05/13/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager **Date:** 05/20/2020
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



It can be done

BDO Id:

200721-02

Reagent Receipt Report

Approved:

Authorized:

Name: M5PFPeA

Received: 7/21/2020

Vendor: Wellington Laboratories

Custodian: Schultz, Stephanie

Catalogue No: M5PFPeA

Expires: 1/22/2025

Type: Solution

Consumed:

Lot No: M5PFPeA0120

Stored In: VOC Laboratory - R0123

Quantity: 1 ea mL % Moisture:

Description: M5PFPeA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Cert Val: | Lower Limit: | Upper Limit: |
|------------|----------|------------------------|---------|----------|----------------|--------------------------|-----------|--------------|--------------|
| 13C5-PFPeA | BDO-2216 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | | |

Total Analytes: 1

Notes:

Approved by: _____

Approved on: _____

Authorized by: _____

Authorized on: _____



WELLINGTON LABORATORIES

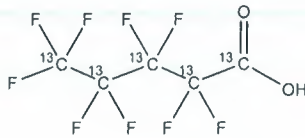
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M5PFPeA
COMPOUND: Perfluoro-n-[¹³C₅]pentanoic acid

LOT NUMBER: M5PFPeA0120

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: ¹³C₅HF₉O₂
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 269.01
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ¹³C
(¹³C₅)

LAST TESTED: (mm/dd/yyyy) 01/22/2020

EXPIRY DATE: (mm/dd/yyyy) 01/22/2025

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

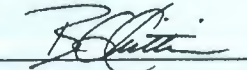
DOCUMENTATION/ DATA ATTACHED:

- Figure 1: LC/MS Data (TIC and Mass Spectrum)
- Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.25% of perfluoro-n-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **Date:** 01/24/2020
B.G. Chittim, General Manager (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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It can be done

BDO Id:

200721-03

Reagent Receipt Report

Approved:

Name: M5PFHxA Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: M5PFHxA Expires: 4/3/2025
Type: Solution Consumed: _____
Lot No: M5PFHxA0320 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: M5PFHxA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|-----------------|-----------------|
| 13C5-PFHxA | BDO-2217 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | |
| Total Analytes: | 1 | | | | | | | |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M5PFHxA **LOT NUMBER:** M5PFHxA0320
COMPOUND: Perfluoro-n-[1,2,3,4,6-¹³C₅]hexanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₅¹²C₁HF₁₁O₂ **MOLECULAR WEIGHT:** 319.02
CONCENTRATION: 50.0 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
(1,2,3,4,6-¹³C₅)
LAST TESTED: (mm/dd/yyyy) 04/03/2020
EXPIRY DATE: (mm/dd/yyyy) 04/03/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

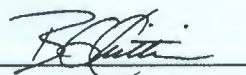
DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **Date:** 04/15/2020
B.G. Chittim, General Manager (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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It can be done

BDO Id:

200721-04

Reagent Receipt Report

Approved:

AM 07/21/20

Name: M4PFHpA Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: M4PFHpA Expires: 1/8/2025
Type: Solution Consumed: _____
Lot No: M4PFHpA0120 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: M4PFHpA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|--------------|-----------------|-----------------|
| 13C4-PFHpA | BDO-2218 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | | |
| Total Analytes: | 1 | | | | | | | | |

Notes:

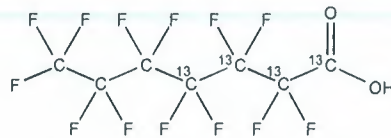
Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____



WELLINGTON
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CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M4PFHpA **LOT NUMBER:** M4PFHpA0120
COMPOUND: Perfluoro-n-[1,2,3,4-¹³C₄]heptanoic acid
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₄¹²C₃HF₁₃O₂ **MOLECULAR WEIGHT:** 368.03
CONCENTRATION: 50.0 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99%¹³C
(1,2,3,4-¹³C₄)
LAST TESTED: (mm/dd/yyyy) 01/08/2020
EXPIRY DATE: (mm/dd/yyyy) 01/08/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

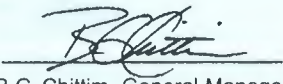
DOCUMENTATION/ DATA ATTACHED:

- Figure 1: LC/MS Data (TIC and Mass Spectrum)
- Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.03% of perfluoro-n-heptanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **Date:** 01/24/2020
B.G. Chittim, General Manager (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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It can be done

BDO Id:

200721-05

Reagent Receipt Report

Approved: Number (max)

Name: M8PFOA Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: M8PFOA Expires: 1/23/2025
Type: Solution Consumed: _____
Lot No: M8PFOA0220 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: M8PFOA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|-----------------|-----------------|
| 13C8-PFOA | BDO-2219 | 48.9000 | 97.80 | -- | -- | <input type="checkbox"/> | | |
| Total Analytes: | 1 | | | | | | | |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

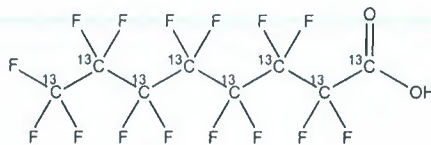


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M8PFOA **LOT NUMBER:** M8PFOA0220
COMPOUND: Perfluoro-n-[¹³C₈]octanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₈H₁₅O₂ **MOLECULAR WEIGHT:** 422.01
CONCENTRATION: 48.9 ± 2.4 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: 97.8% (M8PFOA) **ISOTOPIC PURITY:** ≥99% ¹³C
 2.2% (MPFOA [M+4]) (¹³C₈)
LAST TESTED: (mm/dd/yyyy) 01/23/2020
EXPIRY DATE: (mm/dd/yyyy) 01/23/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

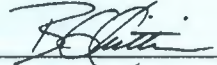
DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of native perfluoro-n-octanoic acid (PFOA) and ~ 2.2% of [M+4] perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **Date:** 01/24/2020
 B.G. Chittim, General Manager (mm/dd/yyyy)

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It can be done

BDO Id:

200721-06

Reagent Receipt Report

Approved: Authorized:

Name: M9PFNA Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: M9PFNA Expires: 9/8/2023
Type: Solution Consumed: _____
Lot No: M9PFNA0918 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: M9PFNA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|-----------------|-----------------|
| 13C9-PFNA | BDO-2221 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | |
| Total Analytes: | 1 | | | | | | | |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

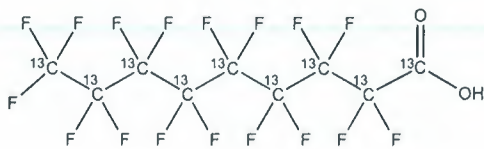


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M9PFNA **LOT NUMBER:** M9PFNA0918
COMPOUND: Perfluoro-n-[¹³C₉]nonanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₉HF₁₇O₂ **MOLECULAR WEIGHT:** 473.01
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: (mm/dd/yyyy) 09/08/2018 (¹³C₉)
EXPIRY DATE: (mm/dd/yyyy) 09/08/2023
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 1.0% of ¹³C₅¹²C₄HF₁₇O₂ (MPFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **Date:** 09/19/2018
B.G. Chittim, General Manager (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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It can be doneBDO Id: 200721-07

Reagent Receipt Report

Approved: Authorized:

Name: M6PFDA Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: M6PFDA Expires: 7/25/2024
Type: Solution Consumed: _____
Lot No: M6PFDA0719 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: M6PFDA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|-----------------|-----------------|
| 13C6-PFDA | BDO-2222 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | |
| Total Analytes: | | | | | | | | 1 |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

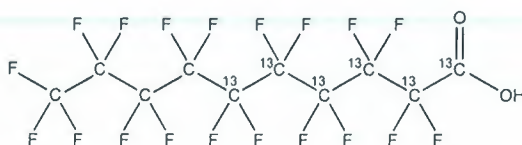
26074-07



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M6PFDA **LOT NUMBER:** M6PFDA0719
COMPOUND: Perfluoro-n-[1,2,3,4,5,6-¹³C₆]decanoic acid
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₆¹²C₄HF₁₉O₂ **MOLECULAR WEIGHT:** 520.04
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
 (1,2,3,4,5,6-¹³C₆)
LAST TESTED: (mm/dd/yyyy) 07/25/2019
EXPIRY DATE: (mm/dd/yyyy) 07/25/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

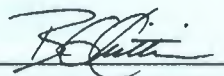
Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:


 B.G. Chittim, General Manager

Date: 07/26/2019

(mm/dd/yyyy)

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It can be done

BDO Id:

200721-08

Approval Receipt Report

Approved: Authorized:

Name: M7PFUdA Received: 7/21/2020
 Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
 Catalogue No: M7PFUdA Expires: 7/22/2024
 Type: Solution Consumed: _____
 Lot No: M7PFUdA0719 Stored In: VOC Laboratory - R0123
 Quantity: 1 ea mL % Moisture: _____
 Description: M7PFUdA

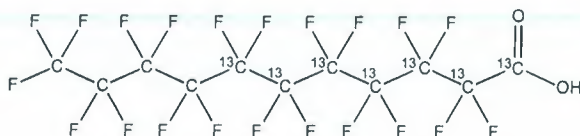
| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|------------------------|----------|------------------------|---------|----------|----------------|--------------------------|--------------|--------------|
| 13C7-PFUnA | BDO-2223 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | |
| Total Analytes: | | | | | | | | 1 |

Notes:

Approved by: _____ Approved on: _____
 Authorized by: _____ Authorized on: _____

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LABORATORIESCERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M7PFUdA **LOT NUMBER:** M7PFUdA0719
COMPOUND: Perfluoro-n-[1,2,3,4,5,6,7-¹³C₇]undecanoic acid
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₇¹²C₄HF₂₁O₂ **MOLECULAR WEIGHT:** 571.04
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
(1,2,3,4,5,6,7-¹³C₇)
LAST TESTED: (mm/dd/yyyy) 07/22/2019
EXPIRY DATE: (mm/dd/yyyy) 07/22/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____

B.G. Chittim, General Manager

Date: 09/12/2019
(mm/dd/yyyy)

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It can be doneBDO Id: 200721-09

Reagent Receipt Report

Approved: Authorized:

Name: MPFDoA Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: MPFDoA Expires: 11/22/2024
Type: Solution Consumed: _____
Lot No: MPFDoA1119 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: MPFDoA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|-----------------|-----------------|
| 13C2-PFDoA | BDO-2112 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | |
| Total Analytes: | 1 | | | | | | | |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

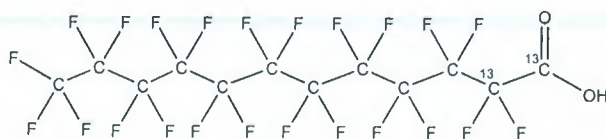
200721-09



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDoA **LOT NUMBER:** MPFDoA1119
COMPOUND: Perfluoro-n-[1,2-¹³C₂]dodecanoic acid
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₂¹²C₁₀HF₂₃O₂ **MOLECULAR WEIGHT:** 616.08
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
 (1,2-¹³C₂)
LAST TESTED: (mm/dd/yyyy) 11/22/2019
EXPIRY DATE: (mm/dd/yyyy) 11/22/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

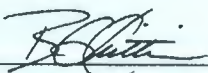
Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____


 B.G. Chittim, General Manager

Date: 11/27/2019
 (mm/dd/yyyy)

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It can be done

BDO Id:

200721-10

Reagent Receipt Report

Approved: Authorized:

Name: M2PFTeDA Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: M2PFTeDA Expires: 11/14/2024
Type: Solution Consumed: _____
Lot No: M2PFTeDA1119 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: M2PFTeDA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|-----------------|-----------------|
| 13C2-PFTeDA | BDO-2224 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | |
| Total Analytes: | 1 | | | | | | | |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

**WELLINGTON**
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DOCUMENTATION

PRODUCT CODE: M2PFTeDA **LOT NUMBER:** M2PFTeDA1119
COMPOUND: Perfluoro-n-[1,2-¹³C₂]tetradecanoic acid
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₂¹²C₁₂HF₂₇O₂ **MOLECULAR WEIGHT:** 716.10
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
(1,2-¹³C₂)
LAST TESTED: (mm/dd/yyyy) 11/14/2019
EXPIRY DATE: (mm/dd/yyyy) 11/14/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

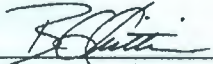
DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-tetradecanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **Date:** 11/26/2019
B.G. Chittim, General Manager (mm/dd/yyyy)

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It can be done

BDO Id: 200721-11

Reagent Receipt Report

Approved: Authorized:

Name: M2-4:2FTS Received: 7/21/2020
 Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
 Catalogue No: M2-4:2FTS Expires: 4/16/2025
 Type: Solution Consumed:
 Lot No: M242FTS0420 Stored In: VOC Laboratory - R0123
 Quantity: 1 ea mL % Moisture:
 Description: M2-4:2FTS

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Cert Val: | Lower Limit: | Upper Limit: |
|-------------|----------|------------------------|---------|----------|----------------|--------------------------|-----------|--------------|--------------|
| 13C2-4:2FTS | BDO-2229 | 46.7000 | 98.00 | -- | -- | <input type="checkbox"/> | | | |

Total Analytes: 1

Notes:

Approved by: _____ Approved on: _____
 Authorized by: _____ Authorized on: _____

200721-11

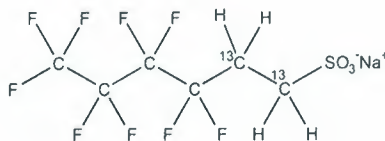


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2-4:2FTS **LOT NUMBER:** M242FTS0420
COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C₂]hexane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₂¹²C₄H₄F₉SO₃Na **MOLECULAR WEIGHT:** 352.12
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
 46.9 ± 2.3 µg/ml (M2-4:2FTS acid)
 46.7 ± 2.3 µg/ml (M2-4:2FTS anion)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: (mm/dd/yyyy) 04/16/2020 (1,2-¹³C₂)
EXPIRY DATE: (mm/dd/yyyy) 04/16/2025
RECOMMENDED STORAGE: Refrigerate ampoule


DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 4:2FTS contains 4.22% of ³⁴S (due to natural isotopic abundance) therefore both native 4:2FTS and M2-4:2FTS will produce signals in the m/z 329 to m/z 309 channel during SRM analysis. We recommend using the m/z 329 to m/z 81 transition to monitor for M2-4:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager **Date:** 04/20/2020
 (mm/dd/yyyy)

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It can be done

BDO Id:

200721-12

Reagent Receipt Report

Approved:

Name: M2-6:2FTS Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: M2-6:2FTS Expires: 5/20/2025
Type: Solution Consumed: _____
Lot No: M262FTS0520 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: M2-6:2FTS

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-------------|----------|---------------------------|---------|----------|-------------------|--------------------------|-----------------|-----------------|
| 13C2-6:2FTS | BDO-2230 | 47.5000 | 98.00 | -- | -- | <input type="checkbox"/> | | |

Total Analytes: 1

Notes:

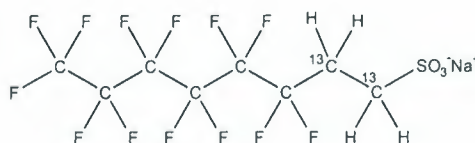
Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2-6:2FTS **LOT NUMBER:** M262FTS0520
COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C₂]octane sulfonate
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₂¹²C₆H₄F₁₃SO₃Na **MOLECULAR WEIGHT:** 452.13
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
 47.6 ± 2.4 µg/ml (M2-6:2FTS acid)
 47.5 ± 2.4 µg/ml (M2-6:2FTS anion)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: (mm/dd/yyyy) 05/20/2020 (1,2-¹³C₂)
EXPIRY DATE: (mm/dd/yyyy) 05/20/2025
RECOMMENDED STORAGE: Refrigerate ampoule

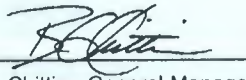
DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2FTS contains 4.22% of ³⁴S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager **Date:** 06/02/2020
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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It can be done

BDO Id: 200721-13

Reagent Receipt Report

Approved: Authorized:

Name: M2-8:2FTS Received: 7/21/2020
 Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
 Catalogue No: M2-8:2FTS Expires: 3/18/2025
 Type: Solution Consumed:
 Lot No: M282FTS0320 Stored In: VOC Laboratory - R0123
 Quantity: 1 ea mL % Moisture:
 Description: M2-8:2FTS

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-------------|----------|------------------------|---------|----------|----------------|--------------------------|--------------|--------------|
| 13C2-8:2FTS | BDO-2220 | 47.9000 | 98.00 | -- | -- | <input type="checkbox"/> | | |

Total Analytes: 1

Notes:

Approved by: _____ Approved on: _____
 Authorized by: _____ Authorized on: _____

**WELLINGTON**
LABORATORIES**CERTIFICATE OF ANALYSIS**
DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS0320
COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-¹³C₂]decane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₂¹²C₈H₄F₁₇SO₃Na **MOLECULAR WEIGHT:** 552.15
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
48.0 ± 2.4 µg/ml (M2-8:2FTS acid)
47.9 ± 2.4 µg/ml (M2-8:2FTS anion)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: (mm/dd/yyyy) 03/18/2020 (1,2-¹³C₂)
EXPIRY DATE: (mm/dd/yyyy) 03/18/2025
RECOMMENDED STORAGE: Refrigerate ampoule

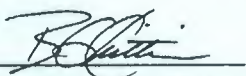
DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8:2FTS contains 4.22% of ³⁴S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager **Date:** 03/18/2020
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

It can be done

BDO Id:

200721-14

Reagent Receipt Report

Approved:

Date: _____

Name: M3PFBSReceived: 7/21/2020Vendor: Wellington LaboratoriesCustodian: Schultz, StephanieCatalogue No: M3PFBSExpires: 3/17/2025Type: Solution

Consumed: _____

Lot No: M3PFBS1019Stored In: VOC Laboratory - R0123Quantity: 1 ea mL % Moisture: _____Description: M3PFBS

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------|----------|---------------------------|---------|----------|-------------------|--------------------------|--------------|-----------------|-----------------|
| 13C3-PFBS | BDO-2226 | 46.5000 | 98.00 | -- | -- | <input type="checkbox"/> | | | |

Total Analytes: 1

Notes:

Approved by: _____ Approved on: _____

Authorized by: _____ Authorized on: _____

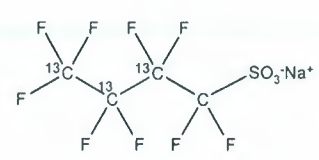


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFBS **LOT NUMBER:** M3PFBS1019
COMPOUND: Sodium perfluoro-1-[2,3,4-¹³C₃]butanesulfonate

STRUCTURE: **CAS #:** Not available



| | | | |
|----------------------------------|---|--------------------------|--|
| MOLECULAR FORMULA: | ¹³ C ₃ ¹² CF ₉ SO ₃ Na | MOLECULAR WEIGHT: | 325.06 |
| CONCENTRATION: | 50.0 ± 2.5 µg/ml (Na salt) 46.6 ± 2.3 µg/ml (M3PFBS acid) 46.5 ± 2.3 µg/ml (M3PFBS anion) | SOLVENT(S): | Methanol |
| CHEMICAL PURITY: | >98% | ISOTOPIC PURITY: | ≥99% ¹³ C (2,3,4- ¹³ C ₃) |
| LAST TESTED: (mm/dd/yyyy) | 03/17/2020 | | |
| EXPIRY DATE: (mm/dd/yyyy) | 03/17/2025 | | |
| RECOMMENDED STORAGE: | Store ampoule in a cool, dark place | | |

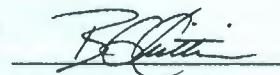
DOCUMENTATION/ DATA ATTACHED:

- Figure 1: LC/MS Data (TIC and Mass Spectrum)
- Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains < 0.1% of perfluoro-1-butanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **Date:** 03/18/2020
(mm/dd/yyyy)
 B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

It can be done

BDO Id:

200721-15

Reagent Receipt Report

Approved:

Name: M3PFHxS Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: M3PFHxS Expires: 10/15/2024
Type: Solution Consumed: _____
Lot No: M3PFHxS1019 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: M3PFHxS

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|-----------------|-----------------|
| 13C3-PFHxS | BDO-2227 | 47.3000 | 98.00 | -- | -- | <input type="checkbox"/> | | |
| Total Analytes: | 1 | | | | | | | |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFHxS **LOT NUMBER:** M3PFHxS1019
COMPOUND: Sodium perfluoro-1-[1,2,3-¹³C₃]hexanesulfonate
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₃¹²C₃F₁₃SO₃Na **MOLECULAR WEIGHT:** 425.07
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
47.3 ± 2.4 µg/ml (M3PFHxS anion)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: (mm/dd/yyyy) 10/15/2019 (1,2,3-¹³C₃)
EXPIRY DATE: (mm/dd/yyyy) 10/15/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

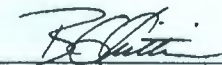
DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.1% perfluoro-1-[1,2-¹³C₂]pentanesulfonate, ~ 0.1% perfluoro-1-octanesulfonate, and ~ 0.05% of perfluoro-1-hexanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:  **Date:** 10/16/2019
B.G. Chittim, General Manager (mm/dd/yyyy)

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It can be done

BDO Id:

200721-16

Reagent Receipt Report

Approved: Authorized:

Name: M8PFOS Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: M8PFOS Expires: 2/21/2025
Type: Solution Consumed: _____
Lot No: M8PFOS0120 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: M8PFOS

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|-----------------|-----------------|
| 13C8-PFOS | BDO-2228 | 47.8000 | 98.00 | -- | -- | <input type="checkbox"/> | | |
| Total Analytes: | 1 | | | | | | | |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

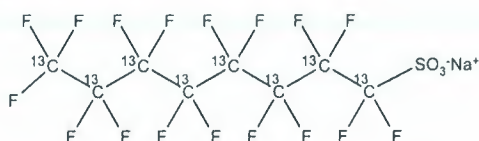
200721-16



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M8PFOS **LOT NUMBER:** M8PFOS0120
COMPOUND: Sodium perfluoro-1-[¹³C₈]octanesulfonate
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₈F₁₇SO₃Na **MOLECULAR WEIGHT:** 530.05
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
 47.9 ± 2.4 µg/ml (M8PFOS acid)
 47.8 ± 2.4 µg/ml (M8PFOS anion)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** >99% ¹³C
LAST TESTED: (mm/dd/yyyy) 02/21/2020 (¹³C₈)
EXPIRY DATE: (mm/dd/yyyy) 02/21/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of sodium perfluoro-1-[¹³C₇]heptanesulfonate (¹³C₇-PFHpS) and ~ 1.0% of sodium perfluoro-1-[¹³C₄]octanesulfonate (MPFOS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 02/21/2020
 (mm/dd/yyyy)

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It can be done

BDO Id:

200721-17

Reagent Receipt Report

Approved: Authorized:

Name: d3-N-MeFOSAA

Received: 7/21/2020

Vendor: Wellington Laboratories

Custodian: Schultz, Stephanie

Catalogue No: d3-N-MeFOSAA

Expires: 12/2/2024

Type: Solution

Consumed:

Lot No: d3NMeFOSAA1119

Stored In: VOC Laboratory - R0123

Quantity: 1 ea mL % Moisture:

Description: d3-N-MeFOSAA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Cert Val: | Lower Limit: | Upper Limit: |
|------------|----------|---------------------------|---------|----------|-------------------|--------------------------|--------------|-----------------|-----------------|
| d3-MeFOSAA | BDO-1838 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | | |

Total Analytes: 1

Notes:

Approved by: _____ Approved on: _____

Authorized by: _____ Authorized on: _____

200721-17

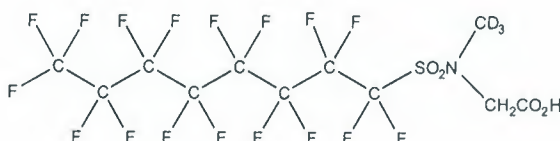


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA1119
COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 1400690-70-1



MOLECULAR FORMULA: C₁₁D₃H₃F₁₇NO₄S **MOLECULAR WEIGHT:** 574.23
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98% ²H₃
LAST TESTED: (mm/dd/yyyy) 12/02/2019
EXPIRY DATE: (mm/dd/yyyy) 12/02/2024
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

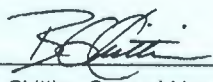
Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____


 B.G. Chittim, General Manager

Date: 12/04/2019
 (mm/dd/yyyy)

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It can be done

BDO Id:

200721-18

Reagent Receipt Report

Approved: Authorized:

Name: d5-N-EtFOSAA Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: d5-N-EtFOSAA Expires: 5/20/2025
Type: Solution Consumed: _____
Lot No: d5NEtFOSAA0520 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: d5-N-EtFOSAA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|--------------|-----------------|-----------------|
| d5-EtFOSAA | BDO-1839 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | | |
| Total Analytes: | 1 | | | | | | | | |

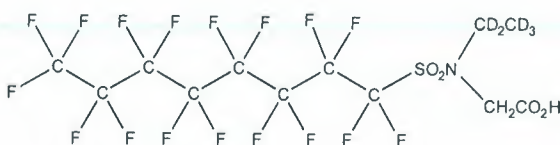
Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

**WELLINGTON**
LABORATORIES**CERTIFICATE OF ANALYSIS**
DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA **LOT NUMBER:** d5NEtFOSAA0520
COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: C₁₂D₅H₃F₁₇NO₄S
CONCENTRATION: 50.0 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/20/2020
EXPIRY DATE: (mm/dd/yyyy) 05/20/2025
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 590.26
SOLVENT(S): Methanol
Water (<1%)
ISOTOPIC PURITY: ≥98% ²H₅

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date: 05/22/2020
(mm/dd/yyyy)

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It can be done

BDO Id:

200721-19

Reagent Receipt Report

Approved: Authorized:

Name: M8FOSA-I Received: 7/21/2020
 Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
 Catalogue No: M8FOSA-I Expires: 2/28/2025
 Type: Solution Consumed: _____
 Lot No: M8FOSA0220I Stored In: VOC Laboratory - R0123
 Quantity: 1 ea mL % Moisture: _____
 Description: M8FOSA-I

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------|----------|------------------------|---------|----------|----------------|--------------------------|--------------|--------------|
| 13C8-FOSA | BDO-2225 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | |

Total Analytes: 1

Notes:

Approved by: _____ Approved on: _____
 Authorized by: _____ Authorized on: _____

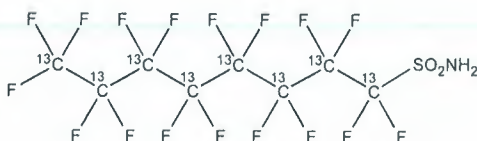
200721-19



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M8FOSA-I **LOT NUMBER:** M8FOSA0220I
COMPOUND: Perfluoro-1-[¹³C₈]octanesulfonamide
STRUCTURE: **CAS #:** 1365803-60-6



MOLECULAR FORMULA: ¹³C₈H₂F₁₇NO₂S **MOLECULAR WEIGHT:** 507.09
CONCENTRATION: 50.0 ± 2.5 µg/ml **SOLVENT(S):** Isopropanol
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: (mm/dd/yyyy) 02/28/2020 (¹³C₈)
EXPIRY DATE: (mm/dd/yyyy) 02/28/2025
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

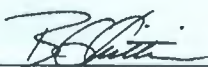
Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.2% of perfluoro-1-[¹³C₈]octanesulfonamide and ~ 0.03% of perfluoro-1-[¹³C₇]heptanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:


 B.G. Chittim, General Manager

Date: 03/03/2020
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

It can be done

BDO Id:

200721-20

Reagent Receipt Report

Approved: Sub:

Name: M3HFPO-DA Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: M3HFPO-DA Expires: 5/13/2023
Type: Solution Consumed: _____
Lot No: M3HFPODA0520 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: M3HFPO-DA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|-----------------|-----------------|
| 13C3-HFPO-DA | BDO-2276 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | |
| Total Analytes: | 1 | | | | | | | |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

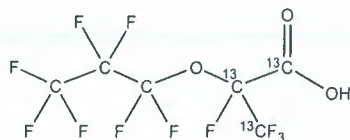


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3HFPO-DA **LOT NUMBER:** M3HFPODA0520
COMPOUND: 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-¹³C₃-propanoic acid

STRUCTURE: **CAS #:** Not available



| | | | |
|----------------------------------|--|--------------------------|--|
| MOLECULAR FORMULA: | $^{13}\text{C}_3^{12}\text{C}_3\text{HF}_{11}\text{O}_3$ | MOLECULAR WEIGHT: | 333.03 |
| CONCENTRATION: | 50.0 ± 2.5 µg/ml | SOLVENT(S): | Methanol |
| CHEMICAL PURITY: | >98% | ISOTOPIC PURITY: | ≥99% ¹³ C (¹³ C ₃) |
| LAST TESTED: (mm/dd/yyyy) | 05/13/2020 | | |
| EXPIRY DATE: (mm/dd/yyyy) | 05/13/2023 | | |
| RECOMMENDED STORAGE: | Refrigerate ampoule | | |

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.9% of the linear M3HFPO-DA isomer.
- Product is commercially known as GenX.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date: 05/22/2020

(mm/dd/yyyy)

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It can be done

BDO Id:

200721-21

Reagent Receipt Report

Approved: Authorized:

Name: MPFDA Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: MPFDA Expires: 3/24/2025
Type: Solution Consumed: _____
Lot No: MPFDA0320 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: MPFDA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|-----------------|-----------------|
| 13C2-PFDA | BDO-2110 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | |
| Total Analytes: | 1 | | | | | | | |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

200721-21


WELLINGTON
 LABORATORIES

CERTIFICATE OF ANALYSIS
 DOCUMENTATION

PRODUCT CODE: MPFDA **LOT NUMBER:** MPFDA0320
COMPOUND: Perfluoro-n-[1,2-¹³C₂]decanoic acid
STRUCTURE: **CAS #:** Not available



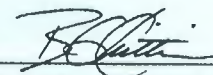
MOLECULAR FORMULA: ¹³C₂¹²C₈HF₁₉O₂ **MOLECULAR WEIGHT:** 516.07
CONCENTRATION: 50.0 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
 (1,2-¹³C₂)
LAST TESTED: (mm/dd/yyyy) 03/24/2020
EXPIRY DATE: (mm/dd/yyyy) 03/24/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE
Certified By:

 B.G. Chittim, General Manager

Date: 04/06/2020
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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It can be done

BDO Id:

200721-22

Reagent Receipt Report

Approved: Authorized:

Name: M2PFOA Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: M2PFOA Expires: 1/8/2025
Type: Solution Consumed: _____
Lot No: M2PFOA0120 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture: _____
Description: M2PFOA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|--------------|-----------------|-----------------|
| 13C2-PFOA | BDO-2107 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | | |
| Total Analytes: | 1 | | | | | | | | |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

200721-22



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFOA **LOT NUMBER:** M2PFOA0120
COMPOUND: Perfluoro-n-[1,2-¹³C₂]octanoic acid
STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₂¹²C₆HF₁₅O₂ **MOLECULAR WEIGHT:** 416.05
CONCENTRATION: 50.0 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99%¹³C
LAST TESTED: (mm/dd/yyyy) 01/08/2020 (1,2-¹³C₂)
EXPIRY DATE: (mm/dd/yyyy) 01/08/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

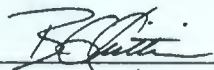
Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-[¹³C₁]heptanoic acid (¹³C₁-PFHpA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:


 B.G. Chittim, General Manager

Date: 01/15/2020
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com



It can be done

BDO Id:

200721-23

Reagent Receipt Report

Approved:

Name: M3PFBA Received: 7/21/2020
 Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
 Catalogue No: M3PFBA Expires: 2/24/2025
 Type: Solution Consumed: _____
 Lot No: M3PFBA0120 Stored In: VOC Laboratory - R0123
 Quantity: 1 ea mL % Moisture: _____
 Description: M3PFBA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------|----------|------------------------|---------|----------|----------------|--------------------------|-----------|--------------|--------------|
| 13C3-PFBA | BDO-2231 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | | | |

Total Analytes: 1

Notes:

Approved by: _____ Approved on: _____
 Authorized by: _____ Authorized on: _____

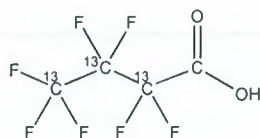


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFBA **LOT NUMBER:** M3PFBA0120
COMPOUND: Perfluoro-n-[2,3,4-¹³C₃]butanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: ¹³C₃¹²CHF₇O₂ **MOLECULAR WEIGHT:** 217.02
CONCENTRATION: 50.0 ± 2.5 µg/ml **SOLVENT(S):** Methanol
 Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99%¹³C
LAST TESTED: (mm/dd/yyyy) 02/24/2020 (2,3,4-¹³C₃)
EXPIRY DATE: (mm/dd/yyyy) 02/24/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

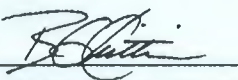
DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-[¹³C₃]propanoic acid and also contains ~ 1.0% of perfluoro-n-[1,2,3,4-¹³C₄]butanoic acid due to the naturally occurring isotopic abundance of ¹³C in the unlabelled carbon atom.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager **Date:** 03/27/2020
 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
 519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

It can be done

BDO Id: 200721-24

Reagent Receipt Report

Approved: Authorized:

Name: MPFOS Received: 7/21/2020
Vendor: Wellington Laboratories Custodian: Schultz, Stephanie
Catalogue No: MPFOS Expires: 4/15/2025
Type: Solution Consumed:
Lot No: MPFOS0420 Stored In: VOC Laboratory - R0123
Quantity: 1 ea mL % Moisture:
Description: MPFOS

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Cert Val: | Lower Limit: | Upper Limit: |
|-----------------|----------|---------------------------|---------|----------|-------------------|--------------------------|--------------|-----------------|-----------------|
| 13C4-PFOS | BDO-2121 | 47.8000 | 98.00 | -- | -- | <input type="checkbox"/> | | | |
| Total Analytes: | 1 | | | | | | | | |

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____

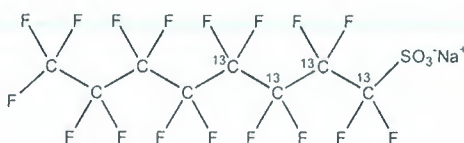


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS0420
COMPOUND: Sodium perfluoro-1-[1,2,3,4-¹³C₄]octanesulfonate

STRUCTURE: **CAS #:** 960315-53-1



MOLECULAR FORMULA: ¹³C₄¹²C₄F₁₇SO₃Na **MOLECULAR WEIGHT:** 526.08
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
47.9 ± 2.4 µg/ml (MPFOS acid)
47.8 ± 2.4 µg/ml (MPFOS anion)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: (mm/dd/yyyy) 04/15/2020 (1,2,3,4-¹³C₄)
EXPIRY DATE: (mm/dd/yyyy) 04/15/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

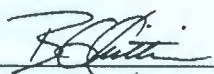
DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.3% Sodium perfluoro-1-[1,2,3-¹³C₃]heptanesulfonate.

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Certified By:  **Date:** 04/20/2020
B.G. Chittim, General Manager (mm/dd/yyyy)

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It can be done

BDO Id: 200811-01

Reagent Receipt Report

Approved: Authorized

Name: 3-Perfluoropropyl propanoic acid Received: 8/11/2020
 Vendor: Wellington Laboratories Custodian: Bailey, Kevin
 Catalogue No: FPrPA Expires: 1/7/2023
 Type: Solution Consumed: _____
 Lot No: FPrPA1219 Stored In: VOC Laboratory - R0123
 Quantity: 1 ea ml % Moisture: _____
 Description: FPrPA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert | Cert Val: | Lower Limit: | Upper Limit: |
|----------------------------------|----------|------------------------|---------|----------|----------------|--------------------------|-----------|--------------|--------------|
| 3-perfluoropropyl propanoic Acid | 356-02-5 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | 50 | 47.5 | 52.5 |

Total Analytes: 1

Notes:

Approved by: _____ Approved on: _____
 Authorized by: _____ Authorized on: _____



WELLINGTON LABORATORIES

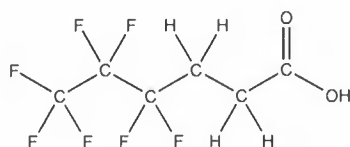
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: FPrPA
COMPOUND: 3-Perfluoropropyl propanoic acid

LOT NUMBER: FPrPA1219

STRUCTURE:

CAS #: 356-02-5



MOLECULAR FORMULA: C₆H₅F₇O₂
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 01/07/2020
EXPIRY DATE: (mm/dd/yyyy) 01/07/2023
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 242.09
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains <1% of the unsaturated 3:3 telomer acid (C₆H₃F₇O₂) as an impurity determined by ¹⁹F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 01/08/2020
(mm/dd/yyyy)

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BATTELLE

It can be done

BDO Id: 200811-02

Reagent Receipt Report

Approved: Authorized

Name: 3-Perfluoroheptyl propanoic acid **Received:** 8/11/2020
Vendor: Wellington Laboratories **Custodian:** Bailey, Kevin
Catalogue No: FHpPA **Expires:** 3/31/2023
Type: Solution **Consumed:** _____
Lot No: FHpPA0320 **Stored In:** VOC Laboratory - R0123
Quantity: 1 ea ml **% Moisture:** _____
Description: FHpPA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert Val: | Cert Val: | Lower Limit: | Upper Limit: |
|----------------------------------|----------|---------------------------|---------|----------|-------------------|--------------------------|--------------|-----------------|-----------------|
| 3-Perfluoroheptyl propanoic acid | 812-70-4 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | 50 | 47.5 | 52.5 |

Total Analytes: 1

Notes:

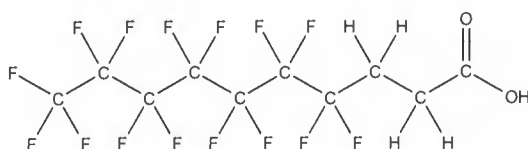
Approved by: _____ **Approved on:** _____
Authorized by: _____ **Authorized on:** _____



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: FHpPA **LOT NUMBER:** FHpPA0320
COMPOUND: 3-Perfluoroheptyl propanoic acid
STRUCTURE: **CAS #:** 812-70-4



MOLECULAR FORMULA: C₁₀H₅F₁₅O₂ **MOLECULAR WEIGHT:** 442.12
CONCENTRATION: 50.0 ± 2.5 µg/ml **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 03/31/2020
EXPIRY DATE: (mm/dd/yyyy) 03/31/2023
RECOMMENDED STORAGE: Refrigerate ampoule


DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: 
 B.G. Chittim, General Manager **Date:** 04/01/2020
(mm/dd/yyyy)

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It can be done

BDO Id: 200811-03

Reagent Receipt Report

Approved: Authorized

Name: 3-Perfluoropentyl propanoic acid Received: 8/11/2020
 Vendor: Wellington Laboratories Custodian: Bailey, Kevin
 Catalogue No: FPePA Expires: 10/2/2022
 Type: Solution Consumed: _____
 Lot No: FPePA0919 Stored In: VOC Laboratory - R0123
 Quantity: 1 ea ml % Moisture: _____
 Description: FPePA

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert | Cert Val: | Lower Limit: | Upper Limit: |
|----------------------------------|-------------|------------------------|---------|----------|----------------|--------------------------|-----------|--------------|--------------|
| 3-Perfluoropentyl propanoic acid | 914637-49-3 | 50.0000 | 98.00 | -- | -- | <input type="checkbox"/> | 50 | 47.5 | 52.5 |

Total Analytes: 1

Notes:

Approved by: _____ Approved on: _____
 Authorized by: _____ Authorized on: _____



WELLINGTON LABORATORIES

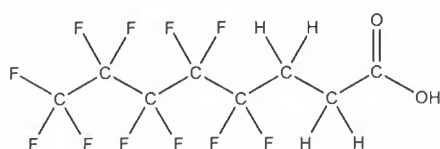
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: FPePA
COMPOUND: 3-Perfluoropentyl propanoic acid

LOT NUMBER: FPePA0919

STRUCTURE:

CAS #: 914637-49-3



MOLECULAR FORMULA: $C_8H_5F_{11}O_2$
CONCENTRATION: $50 \pm 2.5 \mu\text{g/ml}$
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 10/02/2019
EXPIRY DATE: (mm/dd/yyyy) 10/02/2022
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 342.11
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains <1% of the unsaturated 5:3 telomer acid ($C_8H_3F_{11}O_2$) as an impurity determined by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 10/04/2019
(mm/dd/yyyy)

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It can be done

BDO Id: 200909-01

Reagent Receipt Report

Approved: Authorized

Name: PFOA DOD **Received:** 9/9/2020
Vendor: ABSOLUTE STANDARDS **Custodian:** Bailey, Kevin
Catalogue No: 64029 **Expires:** 7/28/2025
Type: Solution **Consumed:** _____
Lot No: 072820 **Stored In:** LC Laboratory - F0111
Quantity: 5 ea ml **% Moisture:** _____
Description: PFOA DOD

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert | Cert Val: | Lower Limit: | Upper Limit: |
|-------------------------------------|-------------|---------------------------|---------|----------|-------------------|--------------------------|--------------|-----------------|-----------------|
| 11-chloroeicosafuoro-3-oxaundecan | 763051-92-9 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 1H,1H,2H,2H-Perfluorodecane sulfon | 39108-34-4 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 1H,1H,2H,2H-Perfluorohexane sulfon | 757124-72-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 1H,1H,2H,2H-Perfluorooctane sulfon | 27619-97-2 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 9-chlorohexadecafluoro-3-oxanonane | 756426-58-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Adona | 919005-14-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Hexafluoropropylene oxide dimer aci | 13252-13-6 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| N-ethylperfluoro-octanesulfonamidoa | 2991-50-6 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| N-methylperfluoro-1-octanesulfonami | 2355-31-9 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-butanefluoride | 375-73-5 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-decanesulfonate | 335-77-3 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-heptanesulfonate | 375-92-8 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-hexanesulfonate | 355-46-4 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-nonanesulfonate | 68259-12-1 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-octanesulfonamide | 754-91-6 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-octanesulfonate | 1763-23-1 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| perfluoro-1-pentanesulfonate | 2706-91-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-butanoic Acid | 375-22-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-decanoic Acid | 335-76-2 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-dodecanoic acid | 307-55-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-heptanoic Acid | 375-85-9 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-hexanoic acid | 307-24-4 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-octanoic Acid | 335-67-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluorononanoic Acid | 375-95-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-pentanoic acid | 2706-90-3 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-tetradecanoic acid | 376-06-7 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-tridecanoic acid | 72629-94-8 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-undecanoic acid | 2058-94-8 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |

Total Analytes: 28

Notes:

Approved by: _____ **Approved on:** _____
Authorized by: _____ **Authorized on:** _____



200909-01

CERTIFIED WEIGHT REPORT

Part Number: 64029
Lot Number: 072820
Description: PFOA - DOD
26 components
Solvent(s): Methanol (1 mM KOH) Lot# 042920 (98%)
2-Propanol 23214 (2%)
Expiration Date: 072825
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 1.0
NIST Test ID#: 23050
5E-05 Balance Uncertainty
50.0 0.007 Flask Uncertainty

| | | | |
|----------------|-----------------|------|--------|
| Formulated By: | Benson Chan | DATE | 072820 |
| Reviewed By: | Pedro L. Santos | DATE | 072820 |

Volume(s) shown below were combined and diluted to (mL):
Note: All assigned values are anion concentrations.

| Compound | Part Number | Lot Number | Dilution Factor | Initial Vol. (mL) | Uncertainty Pipette (mL) | Initial Conc. (µg/mL) | Final Conc. (µg/mL) | Expanded Uncertainty (+/-) µg/mL | SDS Information (Solvent Safety Info. On Attached pg.) | | |
|--|-------------|-----------------|-----------------|-------------------|--------------------------|-----------------------|---------------------|----------------------------------|--|----------------|------------------|
| | | | | | | | | | CAS# | OSHA PEL (TWA) | LD50 |
| 1. Perfluoro-n-butanolic acid (linear) | 99542 | 110419 | 0.02 | 1.00 | 0.004 | 50.2 | 1.00 | 0.01 | 375-22-4 | N/A | N/A |
| 2. Perfluoro-n-pentanolic acid | 99543 | 110419 | 0.02 | 1.00 | 0.004 | 50.7 | 1.01 | 0.02 | 2706-90-3 | N/A | N/A |
| 3. Perfluorohexanolic acid | 99199 | 010820 | 0.02 | 1.00 | 0.004 | 50.3 | 1.01 | 0.01 | 307-24-4 | N/A | N/A |
| 4. Perfluoroheptanolic acid | 99197 | 071219 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 375-85-9 | N/A | N/A |
| 5. Perfluorooctanoic acid (branched)* | 99202 | 021820 | 0.02 | 1.00 | 0.004 | 50.3 | 1.01 | 0.01 | 335-67-1 | N/A | ipr-rel 189mg/kg |
| 6. Perfluorononanolic acid | 99200 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 375-95-1 | N/A | N/A |
| 7. Perfluorodecanolic acid | 99195 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 335-76-2 | N/A | ori-rel 57mg/kg |
| 8. Perfluoroundecanolic acid | 99205 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 2058-94-8 | N/A | N/A |
| 9. Tricosulfurododecanolic acid | 99196 | 010820 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 307-55-1 | N/A | N/A |
| 10. Perfluorotridecanolic acid | 99204 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 72829-94-8 | N/A | N/A |
| 11. Perfluorotetradecanolic acid | 99203 | 120319 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 376-06-7 | N/A | N/A |
| 12. Perfluoro-1-octanesulfonamide | 3677 | FOSA04201 | 0.02 | 1.00 | 0.004 | 50.0 | 1.00 | 0.05 | 754-91-8 | N/A | N/A |
| 13. N-Methylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4162 | brNMeFOSAA0119 | 0.02 | 1.00 | 0.004 | 50.0 | 1.00 | 0.05 | 00-00-0 | N/A | N/A |
| 14. N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4163 | brNEIFOSAA0819 | 0.02 | 1.00 | 0.004 | 50.0 | 1.00 | 0.05 | 00-00-0 | N/A | N/A |
| 15. Perfluorobutanesulfonic acid | 99194 | 021820 | 0.02 | 1.00 | 0.004 | 50.2 | 1.00 | 0.01 | 375-73-5 | N/A | N/A |
| 16. Perfluoro-1-pentanesulfonic acid | 99544 | 011420 | 0.02 | 0.98 | 0.004 | 51.3 | 1.00 | 0.02 | 830402-22-1 | N/A | N/A |
| 17. Perfluorohexanesulfonic acid (branched)* | 99198 | 091219 | 0.02 | 1.00 | 0.004 | 50.6 | 1.01 | 0.01 | 355-46-4 | N/A | N/A |
| 18. Perfluoro-1-heptanesulfonic acid | 3672 | LPFHpS0120 | 0.021 | 1.05 | 0.004 | 47.6 | 1.00 | 0.05 | 375-92-8 | N/A | N/A |
| 19. Heptadecafluorooctanesulfonic acid (branched)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 50.2 | 1.00 | 0.01 | 1763-23-1 | N/A | N/A |
| 20. Perfluoro-1-nonanesulfonic acid | 3957 | LPFNS1119 | 0.021 | 1.05 | 0.004 | 46.0 | 1.01 | 0.05 | 98789-57-2 | N/A | N/A |
| 21. Perfluoro-1-decane sulfonic acid | 3671 | LPFDS0419 | 0.021 | 1.05 | 0.004 | 48.2 | 1.01 | 0.05 | 2808-15-7 | N/A | N/A |
| 22. 1H,1H,2H,2H-Perfluorohexane sulfonic acid | 3955 | 42FTS1019 | 0.0214 | 1.07 | 0.004 | 46.7 | 1.00 | 0.05 | 27819-93-8 | N/A | N/A |
| 23. 1H,1H,2H,2H-Perfluorooctane sulfonic acid | 3661 | 82FTS0919 | 0.021 | 1.05 | 0.004 | 47.4 | 1.00 | 0.05 | 27819-94-9 | N/A | N/A |
| 24. 1H,1H,2H,2H-Perfluorodecane sulfonic acid | 3662 | 82FTS0520 | 0.021 | 1.05 | 0.004 | 47.9 | 1.01 | 0.05 | 27819-96-1 | N/A | N/A |
| 25. 2-(Heptafluoropropoxy)-2,3,3,3-tetrafluoropropionic acid | 99668 | 071219 | 0.020 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 13252-13-6 | N/A | N/A |
| 26. 11-Chloroicosanulfuro-3-oxaundecane-1-sulfonic acid | 4165 | 11CIPF3OUdS0320 | 0.021 | 1.06 | 0.004 | 47.1 | 1.00 | 0.05 | 83329-89-9 | N/A | N/A |
| 27. 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | 4164 | 9CIPF3ONS0420 | 0.021 | 1.07 | 0.004 | 46.6 | 1.00 | 0.05 | 73606-19-6 | N/A | N/A |
| 28. Dodecafluoro-3H-4,8-dioxanonanolic acid (ADONA) | 4103 | NaDONA1119 | 0.021 | 1.06 | 0.004 | 47.1 | 1.00 | 0.05 | 958445-44-8 | N/A | N/A |
| Perfluorooctanoic acid (linear)* | 99202 | 021820 | 0.02 | 1.00 | 0.004 | 44.2 | 0.88 | 0.012 | 335-67-1 | N/A | ipr-rel 189mg/kg |
| Perfluorooctanoic acid (branched isomer)* | 99202 | 021820 | 0.02 | 1.00 | 0.004 | 6.0 | 0.12 | 0.002 | 335-67-1 | N/A | ipr-rel 189mg/kg |
| Perfluorohexanesulfonic acid (linear)* | 99198 | 091219 | 0.02 | 1.00 | 0.004 | 50.0 | 1.00 | 0.01 | 355-46-4 | N/A | N/A |
| Perfluorohexanesulfonic acid (branched isomer)* | 99198 | 091219 | 0.02 | 1.00 | 0.004 | 0.6 | 0.01 | 0.0002 | 355-46-4 | N/A | N/A |
| Heptadecafluorooctanesulfonic acid (linear)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 38.2 | 0.76 | 0.01 | 1763-23-1 | N/A | N/A |
| Heptadecafluorooctanesulfonic acid (branched isomer)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 7.5 | 0.15 | 0.002 | 1763-23-1 | N/A | N/A |
| Heptadecafluorooctanesulfonic acid (branched isomer)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 4.0 | 0.08 | 0.001 | 1763-23-1 | N/A | N/A |
| Heptadecafluorooctanesulfonic acid (branched isomer)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 0.5 | 0.010 | 0.0001 | 1763-23-1 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (linear)* | 4162 | brNMeFOSAA0119 | 0.02 | 1.00 | 0.004 | 34.2 | 0.68 | 0.03 | 2355-31-9 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4162 | brNMeFOSAA0119 | 0.02 | 1.00 | 0.004 | 10.5 | 0.21 | 0.011 | 00-00-0 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4162 | brNMeFOSAA0119 | 0.02 | 1.00 | 0.004 | 5.1 | 0.10 | 0.005 | 00-00-0 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4162 | brNMeFOSAA0119 | 0.02 | 1.00 | 0.004 | 0.3 | 0.005 | 0.00026 | 00-00-0 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (linear)* | 4163 | brNEIFOSAA0819 | 0.02 | 1.00 | 0.004 | 36.2 | 0.72 | 0.04 | 2991-50-6 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4163 | brNEIFOSAA0819 | 0.02 | 1.00 | 0.004 | 8.7 | 0.17 | 0.009 | 00-00-0 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4163 | brNEIFOSAA0819 | 0.02 | 1.00 | 0.004 | 4.5 | 0.09 | 0.005 | 00-00-0 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4163 | brNEIFOSAA0819 | 0.02 | 1.00 | 0.004 | 0.6 | 0.012 | 0.0006 | 00-00-0 | N/A | N/A |

*Concentrations for branched and linear isomers are based on LCMS chromatographic analysis only.

A qualitative standard (Sect. 3.19) is available for PFOA that contains the linear and branched isomers (Wellington Labs, Cat. No. T-PFOA, or equivalent). This qualitative PFOA standard must be purchased and used to identify the retention times of the branched PFOA isomers, but the linear only PFOA standard must be used for quantitation (Sect. 12.2) until a quantitative PFOA standard containing the branched and linear isomers becomes commercially available.1

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
 • Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
 • Standards are certified (±) 0.5% of the stated value, unless otherwise stated.
 • All Standards, after opening ampule, should be stored with cap tight and under appropriate laboratory conditions.
 • Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



It can be done

BDO Id: 200914-01

Reagent Receipt Report

Approved: Authorized

Name: PFOA DOD **Received:** 9/14/2020
Vendor: ABSOLUTE STANDARDS **Custodian:** Schumitz, Matt
Catalogue No: 64029 **Expires:** 8/26/2025
Type: Solution **Consumed:** _____
Lot No: 082620 **Stored In:** LC Laboratory - F0111
Quantity: 5 ea ML **% Moisture:** _____
Description: PFOA DOD

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert | Cert Val: | Lower Limit: | Upper Limit: |
|-------------------------------------|-------------|---------------------------|---------|----------|-------------------|--------------------------|--------------|-----------------|-----------------|
| 11-chloroeicosafuoro-3-oxaundecan | 763051-92-9 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 1H,1H,2H,2H-Perfluorodecane sulfon | 39108-34-4 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 1H,1H,2H,2H-Perfluorohexane sulfon | 757124-72-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 1H,1H,2H,2H-Perfluorooctane sulfon | 27619-97-2 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 9-chlorohexadecafluoro-3-oxanonane | 756426-58-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Adona | 919005-14-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Hexafluoropropylene oxide dimer aci | 13252-13-6 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| N-ethylperfluoro-octanesulfonamidoa | 2991-50-6 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| N-methylperfluoro-1-octanesulfonami | 2355-31-9 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-butanefluoride | 375-73-5 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-decanesulfonate | 335-77-3 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-heptanesulfonate | 375-92-8 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-hexanesulfonate | 355-46-4 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-nonanesulfonate | 68259-12-1 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-octanesulfonamide | 754-91-6 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-octanesulfonate | 1763-23-1 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| perfluoro-1-pentanesulfonate | 2706-91-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-butanoic Acid | 375-22-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-decanoic Acid | 335-76-2 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-dodecanoic acid | 307-55-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-heptanoic Acid | 375-85-9 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-hexanoic acid | 307-24-4 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-octanoic Acid | 335-67-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluorononanoic Acid | 375-95-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-pentanoic acid | 2706-90-3 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-tetradecanoic acid | 376-06-7 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-tridecanoic acid | 72629-94-8 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-undecanoic acid | 2058-94-8 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |

Total Analytes: 28

Notes:

Approved by: _____ **Approved on:** _____
Authorized by: _____ **Authorized on:** _____



CERTIFIED WEIGHT REPORT

Part Number: 64029
Lot Number: 082620
Description: PFOA - DOD
28 components
Expiration Date: 082625
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 1.0
NIST Test ID#: 23060

Solvent(s): Methanol (1 mM KOH) 042920 (98%)
2-Propanol 23214 (2%)
Lot#
Formulated By: Benson Cran DATE: 082620
Reviewed By: Pedro L. Rentas DATE: 082620

Volume(s) shown below were combined and diluted to (mL): 50.0 0.007

Note: All assigned values are anion concentrations.

| Compound | Part Number | Lot Number | Dilution Factor | Initial Vol. (mL) | Uncertainty Pipette (mL) | Initial Conc. (µg/mL) | Final Conc. (µg/mL) | Expanded Uncertainty (+/-) µg/mL | SDS Information (Solvent Safety Info. On Attached pg.) | | |
|---|-------------|-----------------|-----------------|-------------------|--------------------------|-----------------------|---------------------|----------------------------------|--|----------------|-----------------|
| | | | | | | | | | CAS# | OSHA PEL (TWA) | LD50 |
| 1. Perfluoro-n-butyric acid (linear) | 99542 | 110419 | 0.02 | 1.00 | 0.004 | 50.2 | 1.00 | 0.01 | 375-22-4 | N/A | N/A |
| 2. Perfluoro-n-pentanoic acid | 99543 | 110419 | 0.02 | 1.00 | 0.004 | 50.7 | 1.01 | 0.02 | 2706-90-3 | N/A | N/A |
| 3. Perfluorohexanoic acid | 99199 | 010820 | 0.02 | 1.00 | 0.004 | 50.3 | 1.01 | 0.01 | 307-24-4 | N/A | N/A |
| 4. Perfluorooctanoic acid (linear)* | 99202 | 021820 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 375-85-9 | N/A | N/A |
| 5. Perfluorooctanoic acid (branched)* | 99202 | 021820 | 0.02 | 1.00 | 0.004 | 50.3 | 1.01 | 0.01 | 335-67-1 | N/A | or-rel 180mg/kg |
| 6. Perfluorononanoic acid | 99200 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 375-95-1 | N/A | N/A |
| 7. Perfluorodecanoic acid | 99195 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 335-76-2 | N/A | or-rel 57mg/kg |
| 8. Perfluoroundecanoic acid | 99205 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 2058-94-8 | N/A | N/A |
| 9. Tricosfluorododecanoic acid | 99196 | 010820 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 307-55-1 | N/A | N/A |
| 10. Perfluortridecanoic acid | 99204 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 72529-94-8 | N/A | N/A |
| 11. Perfluortetradecanoic acid | 99203 | 120319 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 376-06-7 | N/A | N/A |
| 12. Perfluoro-1-octanesulfonamide | 3677 | FOSA04201 | 0.02 | 1.00 | 0.004 | 50.0 | 1.00 | 0.05 | 754-91-6 | N/A | N/A |
| 13. N-Methylperfluoro-1-octanesulfonamidoacetic acid (linear)* | 4162 | brMeFOSAA1119 | 0.02 | 1.00 | 0.004 | 50.0 | 1.00 | 0.05 | 00-00-0 | N/A | N/A |
| 14. N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4163 | brNEFOSAA0819 | 0.02 | 1.00 | 0.004 | 50.0 | 1.00 | 0.05 | 00-00-0 | N/A | N/A |
| 15. Perfluorobutanesulfonic acid | 99194 | 021820 | 0.02 | 1.00 | 0.004 | 50.2 | 1.00 | 0.01 | 375-73-5 | N/A | N/A |
| 16. Perfluoro-1-pentanesulfonic acid | 99544 | 011420 | 0.02 | 0.98 | 0.004 | 51.3 | 1.00 | 0.02 | 630402-22-1 | N/A | N/A |
| 17. Perfluorohexanesulfonic acid (branched)* | 99198 | 081920 | 0.02 | 1.00 | 0.004 | 50.2 | 1.00 | 0.01 | 355-46-4 | N/A | N/A |
| 18. Perfluoro-1-heptanesulfonic acid | 3672 | LPFHs0120 | 0.021 | 1.05 | 0.004 | 47.6 | 1.00 | 0.05 | 375-92-8 | N/A | N/A |
| 19. Heptadecafluorooctanesulfonic acid (branched)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 50.2 | 1.00 | 0.01 | 1783-23-1 | N/A | N/A |
| 20. Perfluoro-1-nonanesulfonic acid | 3957 | LFFNS1119 | 0.021 | 1.05 | 0.004 | 48.0 | 1.01 | 0.05 | 98789-57-2 | N/A | N/A |
| 21. Perfluoro-1-decane sulfonic acid | 3671 | LFFDS1119 | 0.021 | 1.05 | 0.004 | 48.2 | 1.01 | 0.05 | 2806-15-7 | N/A | N/A |
| 22. 1H,1H,2H,2H-Perfluorohexane sulfonic acid | 3955 | 42FTS0720 | 0.0214 | 1.07 | 0.004 | 46.7 | 1.00 | 0.05 | 27619-93-8 | N/A | N/A |
| 23. 1H,1H,2H,2H-Perfluorooctane sulfonic acid | 3661 | 62FTS0420 | 0.021 | 1.05 | 0.004 | 47.4 | 1.00 | 0.05 | 27819-94-9 | N/A | N/A |
| 24. 1H,1H,2H,2H-Perfluorodecane sulfonic acid | 3662 | 82FTS0520 | 0.021 | 1.05 | 0.004 | 47.9 | 1.01 | 0.05 | 27619-96-1 | N/A | N/A |
| 25. 2-(Heptafluoropropoxy)-2,3,3,3-tetrafluoropropanoic acid | 99966 | 061820 | 0.020 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 13252-13-6 | N/A | N/A |
| 26. 11-Chlorooctadecafluoro-3-oxaundecane-1-sulfonic acid | 4165 | 11ClPF3OudS0320 | 0.021 | 1.06 | 0.004 | 47.1 | 1.00 | 0.05 | 83329-89-9 | N/A | N/A |
| 27. 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | 4164 | 9ClPF3ONS0420 | 0.021 | 1.07 | 0.004 | 46.6 | 1.00 | 0.05 | 72606-19-6 | N/A | N/A |
| 28. Dodecafluoro-3H-4,8-dioxanonanoic acid (ADONA) | 4103 | NaDONA1119 | 0.021 | 1.06 | 0.004 | 47.1 | 1.00 | 0.05 | 958445-44-8 | N/A | N/A |
| Perfluorooctanoic acid (linear)* | 99202 | 021820 | 0.02 | 1.00 | 0.004 | 44.2 | 0.88 | 0.012 | 335-67-1 | N/A | or-rel 180mg/kg |
| Perfluorooctanoic acid (branched isomer)* | 99202 | 021820 | 0.02 | 1.00 | 0.004 | 6.0 | 0.12 | 0.002 | 335-67-1 | N/A | or-rel 180mg/kg |
| Perfluorohexanesulfonic acid (linear)* | 99198 | 081920 | 0.02 | 1.00 | 0.004 | 49.6 | 0.99 | 0.01 | 355-46-4 | N/A | N/A |
| Perfluorohexanesulfonic acid (branched isomer)* | 99198 | 081920 | 0.02 | 1.00 | 0.004 | 0.6 | 0.01 | 0.0002 | 355-46-4 | N/A | N/A |
| Heptadecafluorooctanesulfonic acid (linear)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 38.2 | 0.76 | 0.01 | 1783-23-1 | N/A | N/A |
| Heptadecafluorooctanesulfonic acid (branched isomer)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 7.5 | 0.15 | 0.002 | 1783-23-1 | N/A | N/A |
| Heptadecafluorooctanesulfonic acid (branched isomer)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 4.0 | 0.08 | 0.001 | 1783-23-1 | N/A | N/A |
| Heptadecafluorooctanesulfonic acid (branched isomer)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 0.5 | 0.010 | 0.0001 | 1783-23-1 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (linear)* | 4162 | brMeFOSAA0119 | 0.02 | 1.00 | 0.004 | 34.2 | 0.68 | 0.03 | 2355-31-9 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4162 | brMeFOSAA0119 | 0.02 | 1.00 | 0.004 | 10.5 | 0.21 | 0.011 | 00-00-0 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4162 | brMeFOSAA0119 | 0.02 | 1.00 | 0.004 | 5.1 | 0.10 | 0.005 | 00-00-0 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4162 | brMeFOSAA0119 | 0.02 | 1.00 | 0.004 | 0.3 | 0.005 | 0.00026 | 00-00-0 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (linear)* | 4163 | brNEFOSAA0819 | 0.02 | 1.00 | 0.004 | 36.2 | 0.72 | 0.04 | 2991-50-6 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4163 | brNEFOSAA0819 | 0.02 | 1.00 | 0.004 | 6.7 | 0.17 | 0.009 | 00-00-0 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4163 | brNEFOSAA0819 | 0.02 | 1.00 | 0.004 | 4.5 | 0.09 | 0.005 | 00-00-0 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4163 | brNEFOSAA0819 | 0.02 | 1.00 | 0.004 | 0.6 | 0.012 | 0.0006 | 00-00-0 | N/A | N/A |

*Concentrations for branched and linear isomers are based on LCMS chromatographic analysis only.

A qualitative standard (Sect. 3.19) is available for PFOA that contains the linear and branched isomers (Wellington Labs, Cat. No. T-PFOA, or equivalent). This qualitative PFOA standard must be purchased and used to identify the retention times of the branched PFOA isomers, but the linear only PFOA standard must be used for quantitation (Sect. 12.2) until a quantitative PFOA standard containing the branched and linear isomers becomes commercially available. 1

The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
Standards are certified to ± 0.25% of the stated value, unless otherwise stated.
All standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
Uncertainty Reference: Taylor, B.N. and Kuyatt, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



It can be done

BDO Id: 201006-07

Reagent Receipt Report

Approved: Authorized

Name: PFOA DOD **Received:** 10/6/2020
Vendor: ABSOLUTE STANDARDS **Custodian:** Bailey, Kevin
Catalogue No: 64029 **Expires:** 7/28/2025
Type: Solution **Consumed:** _____
Lot No: 072820 **Stored In:** LC Laboratory - F0111
Quantity: 5 ea ml **% Moisture:** _____
Description: PFOA DOD

| Analyte: | CAS No: | Concentration (ug/mL): | Purity: | Density: | Density Units: | Cert | Cert Val: | Lower Limit: | Upper Limit: |
|-------------------------------------|-------------|---------------------------|---------|----------|-------------------|--------------------------|--------------|-----------------|-----------------|
| 11-chloroeicosafuoro-3-oxaundecan | 763051-92-9 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 1H,1H,2H,2H-Perfluorodecane sulfon | 39108-34-4 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 1H,1H,2H,2H-Perfluorohexane sulfon | 757124-72-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 1H,1H,2H,2H-Perfluorooctane sulfon | 27619-97-2 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| 9-chlorohexadecafluoro-3-oxanonane | 756426-58-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Adona | 919005-14-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Hexafluoropropylene oxide dimer aci | 13252-13-6 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| N-ethylperfluoro-octanesulfonamidoa | 2991-50-6 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| N-methylperfluoro-1-octanesulfonami | 2355-31-9 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-butanefluoride | 375-73-5 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-decanesulfonate | 335-77-3 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-heptanesulfonate | 375-92-8 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-hexanesulfonate | 355-46-4 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-nonanesulfonate | 68259-12-1 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-octanesulfonamide | 754-91-6 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-1-octanesulfonate | 1763-23-1 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| perfluoro-1-pentanesulfonate | 2706-91-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-butyric Acid | 375-22-4 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-decanoic Acid | 335-76-2 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-dodecanoic acid | 307-55-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-heptanoic Acid | 375-85-9 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-hexanoic acid | 307-24-4 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-octanoic Acid | 335-67-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluorononanoic Acid | 375-95-1 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-pentanoic acid | 2706-90-3 | 1.0100 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-tetradecanoic acid | 376-06-7 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-tridecanoic acid | 72629-94-8 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |
| Perfluoro-n-undecanoic acid | 2058-94-8 | 1.0000 | 100.00 | -- | -- | <input type="checkbox"/> | | | |

Total Analytes: 28

Notes:

Approved by: _____ **Approved on:** _____
Authorized by: _____ **Authorized on:** _____



201006-07

CERTIFIED WEIGHT REPORT

Part Number: 64029
Lot Number: 072820
Description: PFOA - DOD
28 components
Expiration Date: 072825
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 1.0
NIST Test ID#: 23060

Solvent(s): Methanol (1 mM KOH)
2-Propanol

Lot# 042920 (98%)
23214 (2%)

5E-05 Balance Uncertainty
0.007 Flask Uncertainty

| | |
|------------------------------|--------|
| Formulated By: Benson Chan | 072820 |
| DATE | |
| Reviewed By: Pedro L. Rentas | 072820 |
| DATE | |

Volume(s) shown below were combined and diluted to (mL): 50.0

Note: All assigned values are anion concentrations.

| Compound | Part Number | Lot Number | Dilution Factor | Initial Vol. (mL) | Uncertainty Pipette (mL) | Initial Conc. (µg/mL) | Final Conc. (µg/mL) | Expanded Uncertainty (+/-) µg/mL | SDS Information (Solvent Safety Info. On Attached pg.) | | |
|--|-------------|-----------------|-----------------|-------------------|--------------------------|-----------------------|---------------------|----------------------------------|--|----------------|------------------|
| | | | | | | | | | CAS# | OSHA PEL (TWA) | LD50 |
| 1. Perfluoro-n-butanolic acid (linear) | 99542 | 110419 | 0.02 | 1.00 | 0.004 | 50.2 | 1.00 | 0.01 | 375-22-4 | N/A | N/A |
| 2. Perfluoro-n-pentanoic acid | 99543 | 110419 | 0.02 | 1.00 | 0.004 | 50.7 | 1.01 | 0.02 | 2708-90-3 | N/A | N/A |
| 3. Perfluorohexanoic acid | 99199 | 010820 | 0.02 | 1.00 | 0.004 | 50.3 | 1.01 | 0.01 | 307-24-4 | N/A | N/A |
| 4. Perfluoroheptanoic acid | 99197 | 071219 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 375-85-9 | N/A | N/A |
| 5. Perfluorooctanoic acid (branched)* | 99202 | 021820 | 0.02 | 1.00 | 0.004 | 50.3 | 1.01 | 0.01 | 335-87-1 | N/A | lpr-rat 189mg/kg |
| 6. Perfluorononanoic acid | 99200 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 375-95-1 | N/A | N/A |
| 7. Perfluorodecanoic acid | 99195 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 335-78-2 | N/A | ort-rat 57mg/kg |
| 8. Perfluoroundecanoic acid | 99205 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 2058-94-6 | N/A | N/A |
| 9. Tricosulfurododecanoic acid | 99198 | 010820 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 307-55-1 | N/A | N/A |
| 10. Perfluorotridecanoic acid | 99204 | 110419 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 72829-94-8 | N/A | N/A |
| 11. Perfluorotetradecanoic acid | 99203 | 120319 | 0.02 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 378-08-7 | N/A | N/A |
| 12. Perfluoro-1-octanesulfonamide | 3677 | FOSA04201 | 0.02 | 1.00 | 0.004 | 50.0 | 1.00 | 0.05 | 754-91-8 | N/A | N/A |
| 13. N-Methylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4182 | brNmFOSAA0119 | 0.02 | 1.00 | 0.004 | 50.0 | 1.00 | 0.05 | 00-00-0 | N/A | N/A |
| 14. N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4183 | brNEIFOSAA0819 | 0.02 | 1.00 | 0.004 | 50.0 | 1.00 | 0.05 | 00-00-0 | N/A | N/A |
| 15. Perfluorobutanesulfonic acid | 99194 | 021820 | 0.02 | 1.00 | 0.004 | 50.2 | 1.00 | 0.01 | 375-73-5 | N/A | N/A |
| 16. Perfluoro-1-pentanesulfonic acid | 99544 | 011420 | 0.02 | 0.98 | 0.004 | 51.3 | 1.00 | 0.02 | 830402-22-1 | N/A | N/A |
| 17. Perfluorohexanesulfonic acid (branched)* | 99196 | 091219 | 0.02 | 1.00 | 0.004 | 50.6 | 1.01 | 0.01 | 355-48-4 | N/A | N/A |
| 18. Perfluoro-1-heptanesulfonic acid | 3672 | LPFHPS0120 | 0.021 | 1.05 | 0.004 | 47.8 | 1.00 | 0.05 | 375-92-8 | N/A | N/A |
| 19. Heptadecafluorooctanesulfonic acid (branched)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 50.2 | 1.00 | 0.01 | 1783-23-1 | N/A | N/A |
| 20. Perfluoro-1-nonanesulfonic acid | 3957 | LPFN51119 | 0.021 | 1.05 | 0.004 | 48.0 | 1.01 | 0.05 | 98789-57-2 | N/A | N/A |
| 21. Perfluoro-1-decanesulfonic acid | 3671 | LPFDS0419 | 0.021 | 1.05 | 0.004 | 48.2 | 1.01 | 0.05 | 2808-15-7 | N/A | N/A |
| 22. 1H,1H,2H,2H-Perfluorohexane sulfonic acid | 3955 | 42FTS1019 | 0.0214 | 1.07 | 0.004 | 48.7 | 1.00 | 0.05 | 27819-93-8 | N/A | N/A |
| 23. 1H,1H,2H,2H-Perfluorooctane sulfonic acid | 3681 | 82FTS0919 | 0.021 | 1.05 | 0.004 | 47.4 | 1.00 | 0.05 | 27819-94-9 | N/A | N/A |
| 24. 1H,1H,2H,2H-Perfluorodecane sulfonic acid | 3682 | 82FTS0520 | 0.021 | 1.05 | 0.004 | 47.9 | 1.01 | 0.05 | 27819-98-1 | N/A | N/A |
| 25. 2-(Heptafluoropropoxy)-2,3,3,3-tetrafluoropropionic acid | 99668 | 071219 | 0.020 | 1.00 | 0.004 | 50.1 | 1.00 | 0.01 | 13252-13-6 | N/A | N/A |
| 26. 11-Chloroicosasulfuro-3-oxaundecane-1-sulfonic acid | 4185 | 11CIPF3OUdS0320 | 0.021 | 1.06 | 0.004 | 47.1 | 1.00 | 0.05 | 83329-89-9 | N/A | N/A |
| 27. 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | 4184 | 9CIPF3ONS0420 | 0.021 | 1.07 | 0.004 | 46.6 | 1.00 | 0.05 | 73608-19-6 | N/A | N/A |
| 28. Dodecafluoro-3H-4,8-dioxanonanoic acid (ADONA) | 4103 | NaDONA1119 | 0.021 | 1.06 | 0.004 | 47.1 | 1.00 | 0.05 | 958445-44-8 | N/A | N/A |
| Perfluorooctanoic acid (linear)* | 99202 | 021820 | 0.02 | 1.00 | 0.004 | 44.2 | 0.88 | 0.012 | 335-87-1 | N/A | lpr-rat 189mg/kg |
| Perfluorooctanoic acid (branched isomer)* | 99202 | 021820 | 0.02 | 1.00 | 0.004 | 6.0 | 0.12 | 0.002 | 335-87-1 | N/A | lpr-rat 189mg/kg |
| Perfluorohexanesulfonic acid (linear)* | 99198 | 091219 | 0.02 | 1.00 | 0.004 | 50.0 | 1.00 | 0.01 | 355-48-4 | N/A | N/A |
| Perfluorohexanesulfonic acid (branched isomer)* | 99198 | 091219 | 0.02 | 1.00 | 0.004 | 0.6 | 0.01 | 0.0002 | 355-48-4 | N/A | N/A |
| Heptadecafluorooctanesulfonic acid (linear)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 38.2 | 0.78 | 0.01 | 1783-23-1 | N/A | N/A |
| Heptadecafluorooctanesulfonic acid (branched isomer)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 7.5 | 0.15 | 0.002 | 1783-23-1 | N/A | N/A |
| Heptadecafluorooclanesulfonic acid (branched isomer)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 4.0 | 0.08 | 0.001 | 1783-23-1 | N/A | N/A |
| Heptadecafluorooctanesulfonic acid (branched isomer)* | 99201 | 021820 | 0.02 | 1.00 | 0.004 | 0.5 | 0.010 | 0.0001 | 1783-23-1 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (linear)* | 4182 | brNmFOSAA0119 | 0.02 | 1.00 | 0.004 | 34.2 | 0.68 | 0.03 | 2355-31-9 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4182 | brNmFOSAA0119 | 0.02 | 1.00 | 0.004 | 10.5 | 0.21 | 0.011 | 00-00-0 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4152 | brNmFOSAA0119 | 0.02 | 1.00 | 0.004 | 5.1 | 0.10 | 0.005 | 00-00-0 | N/A | N/A |
| N-Methylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4182 | brNmFOSAA0119 | 0.02 | 1.00 | 0.004 | 0.3 | 0.005 | 0.00026 | 00-00-0 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (linear)* | 4183 | brNEIFOSAA0819 | 0.02 | 1.00 | 0.004 | 38.2 | 0.72 | 0.04 | 2991-50-6 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4183 | brNEIFOSAA0819 | 0.02 | 1.00 | 0.004 | 8.7 | 0.17 | 0.009 | 00-00-0 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4183 | brNEIFOSAA0819 | 0.02 | 1.00 | 0.004 | 4.5 | 0.09 | 0.005 | 00-00-0 | N/A | N/A |
| N-Ethylperfluoro-1-octanesulfonamidoacetic acid (branched)* | 4183 | brNEIFOSAA0819 | 0.02 | 1.00 | 0.004 | 0.8 | 0.012 | 0.0006 | 00-00-0 | N/A | N/A |

*Concentrations for branched and linear isomers are based on LCMS chromatographic analysis only.

A qualitative standard (Sect. 3.19) is available for PFOA that contains the linear and branched isomers (Wellington Labs, Cat. No. T-PFOA, or equivalent). This qualitative PFOA standard must be purchased and used to identify the retention times of the branched PFOA isomers, but the linear only PFOA standard must be used for quantitation (Sect. 1.2.2) until a quantitative PFOA standard containing the branched and linear isomers becomes commercially available.1

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
 • Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
 • Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
 • All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
 • Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ACCREDITATIONS

| Accrediting Authority | Laboratory ID |
|--|----------------------|
| U.S. Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP) | 91667 |
| State of Florida Department of Health | E87856 |
| State of New York Department of Health | 12105 |
| State of Washington Department of Ecology | C1050 |
| State of California | 3045 |
| Commonwealth of Massachusetts | E87856 |
| State of Maine | MA00056 |
| State of Vermont | VT 87856 |
| State of New Hampshire | 2137 |
| Commonwealth of Pennsylvania Department of Environmental Protection | 68-05687 |
| State of Alaska Department of Environmental Conservation | 19-005 |
| State of Rhode Island | E87856 |

Current certificates and lists of accredited parameters are available upon request.

Sample Preparation



It can be done

**BATTELLE - NORWELL OPERATIONS
SAMPLE PREPARATION RECORDS**

| | |
|---|------------------------------|
| <u>Project Title(s)</u> | <u>Project No.(s)</u> |
| CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10 | 100142218 |
| 20-1419 | |
| CTO-4532: PFAS in Water | |
| SW | |
| SOP Numbers (see workplan for modifications) | |
| ExtractionSOP No. | 5-370 |

| This Batch Contains The Following Samples: | |
|---|-----------|
| DB253PB-FS | G1651-FS1 |
| DB254LCS-FS | G1654-FS1 |
| G1644-FS1 | G1661-FS1 |
| G1645-FS1 | G1668-FS1 |
| G1646-FS1 | |
| G1647-FS1 | |

Laboratory Preparation Records
COMPLETE AND VALIDATED

Prep Task Leader: Allison Wamness

| Approved By: | Date | Initials |
|-----------------|------------|----------|
| Denise Schumitz | 11/08/2020 | DMS |



It can be done

BATTELLE - NORWELL OPERATIONS SAMPLE IDENTIFICATION PAGE

Project Title(s)CTO-4532: NRL Chesapeake Bay Detachment (NRL-
CBD) Site 10**Project No.(s)**

100142218

20-1419

**CTO-4532: PFAS in Water
SW**

| Sample ID | Description |
|-------------|---------------------------|
| DB253PB-FS | Procedural Blank |
| DB254LCS-FS | Laboratory Control Sample |
| G1644-FS1 | CBD-AOA-SW07-1020 |
| G1645-FS1 | CBD-AOA-SW05-1020 |
| G1646-FS1 | CBD-AOA-SW03-1020 |
| G1647-FS1 | CBD-AOA-SW04-1020 |
| G1651-FS1 | CBD-AOA-SW02-1020 |
| G1654-FS1 | CBD-AOA-SW01-1020 |
| G1661-FS1 | CBD-AOA-SW06-1020 |
| G1668-FS1 | CBD-AOA-SW09-1020 |

Samples Assigned By:

Denise Schumitz

Date : November 3, 2020

Comments: Re-extract samples from 20-1298



It can be done

BATTELLE - NORWELL OPERATIONS SAMPLE CUSTODY LOG

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.(s)

100142218

20-1419

**CTO-4532: PFAS in Water
SW**

| | |
|--|---|
| Requested On/By: 11/04/2020 AW | Purpose: Sample Preparation |
| Relinquished On/By: 11/04/2020 MDS | Last Activity: Transfer |
| Accepted On/By: 11/04/2020 AW Stored In Facility: Sample Preparation Stored Until: Stored Comment: NA | Returned On/To: Returned To Facility: Returned Comment: NA |

| No. | BDO-ID: | Ctrs | * | Condition: | Custody Comment: | |
|----------------------|---------|------|---|----------------------------|------------------|--|
| 1 | G1644 | 2 | C | Consumed | NA | |
| 2 | G1645 | 2 | C | Consumed | NA | |
| 3 | G1646 | 2 | C | Consumed | NA | |
| 4 | G1647 | 2 | C | Consumed | NA | |
| 5 | G1651 | 2 | C | Consumed | NA | |
| 6 | G1654 | 2 | C | Consumed | NA | |
| 7 | G1661 | 2 | C | Consumed | NA | |
| 8 | G1668 | 2 | C | Consumed | NA | |
| Total Samples | | 8 | | * "C" = Consumed Container | | |



It can be done

**BATTELLE - NORWELL OPERATIONS
LIQUID SAMPLE ID FORM**

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-
CBD) Site 10

Project No.(s)

100142218

20-1419

**CTO-4532: PFAS in Water
SW**

| Sample ID | Description | Volume (mL) | Bottles | * | Date Initials |
|-------------|---------------------------|-------------|---------|----|---------------|
| DB253PB-FS | Procedural Blank | 250.0 | NA | -- | 11/04/20 KH |
| DB254LCS-FS | Laboratory Control Sample | 250.0 | NA | -- | 11/04/20 KH |
| G1644-FS1 | CBD-AOA-SW07-1020 | 250.0 | 2 | C | 11/05/20 BTM |
| G1645-FS1 | CBD-AOA-SW05-1020 | 260.0 | 2 | C | 11/05/20 BTM |
| G1646-FS1 | CBD-AOA-SW03-1020 | 260.0 | 2 | C | 11/05/20 BTM |
| G1647-FS1 | CBD-AOA-SW04-1020 | 260.0 | 2 | C | 11/05/20 BTM |
| G1651-FS1 | CBD-AOA-SW02-1020 | 255.0 | 2 | C | 11/05/20 BTM |
| G1654-FS1 | CBD-AOA-SW01-1020 | 265.0 | 2 | C | 11/05/20 BTM |
| G1661-FS1 | CBD-AOA-SW06-1020 | 260.0 | 2 | C | 11/05/20 BTM |
| G1668-FS1 | CBD-AOA-SW09-1020 | 250.0 | 2 | C | 11/05/20 BTM |

Comments:

Samples Assigned By:

Denise Schumitz

Date : November 3, 2020

* - "C" = Sample is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS SURROGATE SPIKE FORM

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-
CBD) Site 10

Project No.(s)

100142218

20-1419

CTO-4532: PFAS in Water

SW

| Sample ID | Standard ID | Type | Vial No. | Vol Added (uL) | Date Spiked/ Spiked By | Witn'd By | Comment |
|-------------|-------------|--------|----------|----------------|---------------------------|-----------|---------|
| DB253PB-FS | LD44 | SIS | 8 | 125 | 11/04/20 AW | BTM | NA |
| DB254LCS-FS | LD44 | SIS | 8 | 125 | 11/04/20 AW | BTM | NA |
| DB254LCS-FS | LE23 | LCS/MS | 1 | 100 | 11/04/20 AW | BTM | NA |
| G1644-FS1 | LD44 | SIS | 8 | 125 | 11/04/20 AW | BTM | NA |
| G1645-FS1 | LD44 | SIS | 8 | 125 | 11/04/20 AW | BTM | NA |
| G1646-FS1 | LD44 | SIS | 8 | 125 | 11/04/20 AW | BTM | NA |
| G1647-FS1 | LD44 | SIS | 8 | 125 | 11/04/20 AW | BTM | NA |
| G1651-FS1 | LD44 | SIS | 8 | 125 | 11/04/20 AW | BTM | NA |
| G1654-FS1 | LD44 | SIS | 8 | 125 | 11/04/20 AW | BTM | NA |
| G1661-FS1 | LD44 | SIS | 8 | 125 | 11/04/20 AW | BTM | NA |
| G1668-FS1 | LD44 | SIS | 8 | 125 | 11/04/20 AW | BTM | NA |

Syringes/Pipettes Used:

| Std ID | Type | Syr/Pip |
|--------|---------|------------|
| LD44 | Pipette | B814657482 |
| LE23 | Pipette | B814657482 |



It can be done

BATTELLE - NORWELL OPERATIONS SAMPLE EXTRACTION FORM

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.(s)

100142218

20-1419

**CTO-4532: PFAS in Water
SW**

| Sample ID | 1st Extraction | 2nd Extraction | 3rd Extraction | Conc. ID | Turbo °C | Turbo PSI | KD °C | Comment |
|-------------|----------------|----------------|----------------|----------|----------|-----------|-------|---------|
| DB253PB-FS | 11/04/20 KH | NA | NA | NEVAP_4 | NA | NA | NA | NA |
| DB254LCS-FS | 11/04/20 KH | NA | NA | NEVAP_4 | NA | NA | NA | NA |
| G1644-FS1 | 11/04/20 KH | NA | NA | NEVAP_4 | NA | NA | NA | NA |
| G1645-FS1 | 11/04/20 KH | NA | NA | NEVAP_4 | NA | NA | NA | NA |
| G1646-FS1 | 11/04/20 KH | NA | NA | NEVAP_4 | NA | NA | NA | NA |
| G1647-FS1 | 11/04/20 KH | NA | NA | NEVAP_4 | NA | NA | NA | NA |
| G1651-FS1 | 11/04/20 KH | NA | NA | NEVAP_4 | NA | NA | NA | NA |
| G1654-FS1 | 11/04/20 KH | NA | NA | NEVAP_4 | NA | NA | NA | NA |
| G1661-FS1 | 11/04/20 KH | NA | NA | NEVAP_4 | NA | NA | NA | NA |
| G1668-FS1 | 11/04/20 KH | NA | NA | NEVAP_4 | NA | NA | NA | NA |

Solvents/Reagent Preparations:

| Name | ID | Expires | Lot No | Procedure | Comments |
|----------------------------|-------------|----------|----------------------|--|----------|
| pH Indicator Strips 0-14 | 200923-01 | 09/23/25 | 10D0401 | NA | |
| 0.5% NH3 in Methanol (w/v) | RP-201104-5 | 11/04/20 | A0409799 | Per 100 mL, 4.25 mL ammonia solution brought to 100 mL with methanol | |
| 0.5% NH3 in Methanol (w/v) | RP-201104-5 | 11/04/20 | 202167 | Per 100 mL, 4.25 mL ammonia solution brought to 100 mL with methanol | |
| Pre-packed SPE Column | RP-201104-7 | 11/04/20 | S308-0116/S20-004413 | Pre-packed SPE Column | |

Solvents/Reagents:

| Name | Lot No | Comments |
|---------------------------|--------|----------|
| Methanol HPLC (201009-02) | 201527 | |



It can be done

**BATTELLE - NORWELL OPERATIONS
EXTRACT CLEANUP FORM**

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.(s)

100142218

20-1419

**CTO-4532: PFAS in Water
SW**

| Extract Id | Date | Init. | Comments |
|----------------|----------|-------|----------|
| DB253PB-FS(0) | 11/04/20 | BTM | NA |
| DB254LCS-FS(0) | 11/04/20 | BTM | NA |
| G1644-FS1(0) | 11/04/20 | BTM | NA |
| G1645-FS1(0) | 11/04/20 | BTM | NA |
| G1646-FS1(0) | 11/04/20 | BTM | NA |
| G1647-FS1(0) | 11/04/20 | BTM | NA |
| G1651-FS1(0) | 11/04/20 | BTM | NA |
| G1654-FS1(0) | 11/04/20 | BTM | NA |
| G1661-FS1(0) | 11/04/20 | BTM | NA |
| G1668-FS1(0) | 11/04/20 | BTM | NA |

Cleanup:

Envi-Carb

Reagents:

| Reagent Prep | Name | Expires | Lot No | Procedure |
|--------------|---------------------------------------|----------|--------|-----------|
| 191209-01 | Supelclean ENVI-Carb SPE Bulk Packing | 12/09/24 | 122395 | NA |



It can be done

**BATTELLE - NORWELL OPERATIONS
EXTRACT CLEANUP FORM**

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.(s)

100142218

20-1419

**CTO-4532: PFAS in Water
SW**

| Extract Id | Date | Init. | Comments |
|------------|------|-------|----------|
|------------|------|-------|----------|



It can be done

BATTELLE - NORWELL OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.(s)

100142218

20-1419**CTO-4532: PFAS in Water****SW****(N/A Fraction)**

| Extract Id | Extr. Vol. (uL) | Added (uL) | Std. Id | Accm . (uL) | Vial No. | Pre Inj. Vol. (uL)^ | Final Dilution * | Date Spiked/ Spiked By | Witn'd By |
|----------------|-----------------|------------|---------|-------------|----------|---------------------|------------------|------------------------|-----------|
| DB253PB-FS(0) | 875 | 125 | LE40 | 125 | 1 | 1000 | 1.000 | 11/06/20 BTM | RPK |
| DB254LCS-FS(0) | 875 | 125 | LE40 | 125 | 1 | 1000 | 1.000 | 11/06/20 BTM | RPK |
| G1644-FS1(0) | 875 | 125 | LE40 | 125 | 1 | 1000 | 1.000 | 11/06/20 BTM | RPK |
| G1644-FS1-D(3) | 900 | 100 | LE40 | 125 | 2 | 1000 | 5.000 | 11/09/20 DMS | AW |
| G1644-FS1-D(5) | 925 | 75 | LE40 | 125 | 2 | 1000 | 12.500 | 11/09/20 DMS | AW |
| G1644-FS1-D(7) | 925 | 75 | LE40 | 125 | 1 | 1000 | 31.250 | 11/09/20 RPK | BTM |
| G1645-FS1(0) | 875 | 125 | LE40 | 125 | 1 | 1000 | 1.000 | 11/06/20 BTM | RPK |
| G1645-FS1-D(3) | 900 | 100 | LE40 | 125 | 2 | 1000 | 5.000 | 11/09/20 DMS | AW |
| G1645-FS1-D(5) | 925 | 75 | LE40 | 125 | 2 | 1000 | 12.500 | 11/09/20 DMS | AW |
| G1645-FS1-D(7) | 925 | 75 | LE40 | 125 | 2 | 1000 | 31.250 | 11/09/20 DMS | AW |
| G1646-FS1(0) | 875 | 125 | LE40 | 125 | 1 | 1000 | 1.000 | 11/06/20 BTM | RPK |
| G1646-FS1-D(3) | 900 | 100 | LE40 | 125 | 2 | 1000 | 5.000 | 11/09/20 DMS | AW |
| G1647-FS1(0) | 875 | 125 | LE40 | 125 | 1 | 1000 | 1.000 | 11/06/20 BTM | RPK |
| G1647-FS1-D(3) | 900 | 100 | LE40 | 125 | 2 | 1000 | 5.000 | 11/09/20 DMS | AW |
| G1651-FS1(0) | 875 | 125 | LE40 | 125 | 1 | 1000 | 1.000 | 11/06/20 BTM | RPK |
| G1654-FS1(0) | 875 | 125 | LE40 | 125 | 1 | 1000 | 1.000 | 11/06/20 BTM | RPK |
| G1661-FS1(0) | 875 | 125 | LE40 | 125 | 1 | 1000 | 1.000 | 11/06/20 BTM | RPK |
| G1661-FS1-D(3) | 900 | 100 | LE40 | 125 | 2 | 1000 | 5.000 | 11/09/20 DMS | AW |
| G1661-FS1-D(5) | 900 | 100 | LE40 | 125 | 2 | 1000 | 25.000 | 11/09/20 DMS | AW |

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.



It can be done

BATTELLE - NORWELL OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-
CBD) Site 10

Project No.(s)

100142218

20-1419

**CTO-4532: PFAS in Water
SW**

(N/A Fraction)

| Extract Id | Extr. Vol. (uL) | Added (uL) | Std. Id | Accm . (uL) | Vial No. | Pre Inj. Vol. (uL)^ | Final Dilution * | Date Spiked/ Spiked By | Witn'd By |
|----------------|-----------------|------------|---------|-------------|----------|---------------------|------------------|------------------------|-----------|
| G1661-FS1-D(7) | 925 | 75 | LE40 | 125 | 2 | 1000 | 62.500 | 11/09/20 DMS | AW |
| G1661-FS1-D(9) | 925 | 75 | LE40 | 125 | 1 | 1000 | 156.250 | 11/09/20 RPK | BTM |
| G1668-FS1(0) | 875 | 125 | LE40 | 125 | 1 | 1000 | 1.000 | 11/06/20 BTM | RPK |
| G1668-FS1-D(3) | 900 | 100 | LE40 | 125 | 2 | 1000 | 5.000 | 11/09/20 DMS | AW |
| G1668-FS1-D(5) | 900 | 100 | LE40 | 125 | 2 | 1000 | 25.000 | 11/09/20 DMS | AW |
| G1668-FS1-D(7) | 925 | 75 | LE40 | 87.5 | 2 | 1000 | 250.000 | 11/09/20 DMS | AW |

Syringes/Pipettes Used:

| Std ID | Type | Syr/Pip |
|--------|---------|------------|
| LE39 | Pipette | B814659662 |
| LE39 | Pipette | B909301860 |
| LE40 | Pipette | B814657482 |
| LE40 | Pipette | B814659662 |
| LE40 | Pipette | B909301860 |

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.



It can be done

BATTELLE - NORWELL OPERATIONS EXTRACT SPIKE FORM

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.(s)

100142218

20-1419

CTO-4532: PFAS in Water

SW

| Extract Id | DF | Std. ID | Type | Vial No. | Vol. Added (uL) | Conc (ug/mL) | Added (ng) | Date Spiked/ Spiked By | Witn'd By |
|----------------|--------|---------|------|----------|-----------------|--------------|------------|------------------------|-----------|
| G1644-FS1-D(3) | 5 | LE39 | SIS | 2 | 100 | 0 | 0 | 11/09/20 DMS | AW |
| G1644-FS1-D(5) | 12.5 | LE39 | SIS | 2 | 75 | 0 | 0 | 11/09/20 DMS | AW |
| G1644-FS1-D(7) | 31.25 | LE39 | SIS | 2 | 75 | 0 | 0 | 11/09/20 RPK | BTM |
| G1645-FS1-D(3) | 5 | LE39 | SIS | 2 | 100 | 0 | 0 | 11/09/20 DMS | AW |
| G1645-FS1-D(5) | 12.5 | LE39 | SIS | 2 | 75 | 0 | 0 | 11/09/20 DMS | AW |
| G1645-FS1-D(7) | 31.25 | LE39 | SIS | 2 | 75 | 0 | 0 | 11/09/20 DMS | AW |
| G1646-FS1-D(3) | 5 | LE39 | SIS | 2 | 100 | 0 | 0 | 11/09/20 DMS | AW |
| G1647-FS1-D(3) | 5 | LE39 | SIS | 2 | 100 | 0 | 0 | 11/09/20 DMS | AW |
| G1661-FS1-D(3) | 5 | LE39 | SIS | 2 | 100 | 0 | 0 | 11/09/20 DMS | AW |
| G1661-FS1-D(5) | 25 | LE39 | SIS | 2 | 100 | 0 | 0 | 11/09/20 DMS | AW |
| G1661-FS1-D(7) | 62.5 | LE39 | SIS | 2 | 75 | 0 | 0 | 11/09/20 DMS | AW |
| G1661-FS1-D(9) | 156.25 | LE39 | SIS | 2 | 75 | 0 | 0 | 11/09/20 RPK | BTM |
| G1668-FS1-D(3) | 5 | LE39 | SIS | 2 | 100 | 0 | 0 | 11/09/20 DMS | AW |
| G1668-FS1-D(5) | 25 | LE39 | SIS | 2 | 100 | 0 | 0 | 11/09/20 DMS | AW |
| G1668-FS1-D(7) | 250 | LE39 | SIS | 2 | 75 | 0 | 0 | 11/09/20 DMS | AW |

Syringes/Pipettes Used:

| Std ID | Type | Syr/Pip |
|--------|---------|------------|
| LE39 | Pipette | B814659662 |
| LE39 | Pipette | B909301860 |
| LE40 | Pipette | B814657482 |
| LE40 | Pipette | B814659662 |
| LE40 | Pipette | B909301860 |



It can be done

BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.(s)

100142218

20-1419**CTO-4532: PFAS in Water****SW**

| Extract | | * | Extract Date | Source | | Initial Extract Vol (uL) | Extract Split | Extract Split | Total Dilution | Date/Initials |
|-------------|---|----|----------------------|-------------|---|--------------------------|---------------|---------------|----------------|---------------|
| Name | # | | | Name | # | | | | | |
| DB253PB-FS | 0 | -- | 11/4/2020 | NA | | NA | NA | 1.000 | 1.000 | 11/04/20 KH |
| DB254LCS-FS | 0 | -- | 11/4/2020 | NA | | NA | NA | 1.000 | 1.000 | 11/04/20 KH |
| G1644-FS1 | 0 | C | 11/4/2020 | NA | | NA | NA | 1.000 | 1.000 | 11/04/20 BTM |
| G1644-FS1 | 2 | -- | 11/9/2020 9:46:00 AM | G1644-FS1 | 0 | 1000 | 800 | 1.250 | 1.250 | 11/09/20 DMS |
| G1644-FS1-D | 3 | C | 11/9/2020 9:46:00 AM | G1644-FS1 | 0 | 1000 | 200 | 5.000 | 5.000 | 11/09/20 DMS |
| G1644-FS1-D | 4 | -- | 11/9/2020 9:49:00 AM | G1644-FS1-D | 3 | 1000 | 600 | 1.667 | 8.333 | 11/09/20 DMS |
| G1644-FS1-D | 5 | C | 11/9/2020 9:49:00 AM | G1644-FS1-D | 3 | 1000 | 400 | 2.500 | 12.500 | 11/09/20 DMS |
| G1644-FS1-D | 6 | -- | 11/9/2020 5:19:00 PM | G1644-FS1-D | 5 | 1000 | 600 | 1.667 | 20.833 | 11/09/20 RPK |
| G1644-FS1-D | 7 | -- | 11/9/2020 5:19:00 PM | G1644-FS1-D | 5 | 1000 | 400 | 2.500 | 31.250 | 11/09/20 RPK |
| G1645-FS1 | 0 | C | 11/4/2020 | NA | | NA | NA | 1.000 | 1.000 | 11/04/20 BTM |
| G1645-FS1 | 2 | -- | 11/9/2020 9:46:00 AM | G1645-FS1 | 0 | 1000 | 800 | 1.250 | 1.250 | 11/09/20 DMS |
| G1645-FS1-D | 3 | C | 11/9/2020 9:46:00 AM | G1645-FS1 | 0 | 1000 | 200 | 5.000 | 5.000 | 11/09/20 DMS |
| G1645-FS1-D | 4 | -- | 11/9/2020 9:49:00 AM | G1645-FS1-D | 3 | 1000 | 600 | 1.667 | 8.333 | 11/09/20 DMS |
| G1645-FS1-D | 5 | C | 11/9/2020 9:49:00 AM | G1645-FS1-D | 3 | 1000 | 400 | 2.500 | 12.500 | 11/09/20 DMS |

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.(s)

100142218

20-1419**CTO-4532: PFAS in Water****SW**

| Extract | | * | Extract Date | Source | | Initial Extract Vol (uL) | Extract Split | Extract Split | Total Dilution | Date/Initials |
|-------------|---|----|----------------------|-------------|---|--------------------------|---------------|---------------|----------------|---------------|
| Name | # | | | Name | # | | | | | |
| G1645-FS1-D | 6 | -- | 11/9/2020 9:57:00 AM | G1645-FS1-D | 5 | 1000 | 600 | 1.667 | 20.833 | 11/09/20 DMS |
| G1645-FS1-D | 7 | -- | 11/9/2020 9:57:00 AM | G1645-FS1-D | 5 | 1000 | 400 | 2.500 | 31.250 | 11/09/20 DMS |
| G1646-FS1 | 0 | C | 11/4/2020 | NA | | NA | NA | 1.000 | 1.000 | 11/04/20 BTM |
| G1646-FS1 | 2 | -- | 11/9/2020 9:46:00 AM | G1646-FS1 | 0 | 1000 | 800 | 1.250 | 1.250 | 11/09/20 DMS |
| G1646-FS1-D | 3 | -- | 11/9/2020 9:46:00 AM | G1646-FS1 | 0 | 1000 | 200 | 5.000 | 5.000 | 11/09/20 DMS |
| G1647-FS1 | 0 | C | 11/4/2020 | NA | | NA | NA | 1.000 | 1.000 | 11/04/20 BTM |
| G1647-FS1 | 2 | -- | 11/9/2020 9:46:00 AM | G1647-FS1 | 0 | 1000 | 800 | 1.250 | 1.250 | 11/09/20 DMS |
| G1647-FS1-D | 3 | -- | 11/9/2020 9:46:00 AM | G1647-FS1 | 0 | 1000 | 200 | 5.000 | 5.000 | 11/09/20 DMS |
| G1651-FS1 | 0 | -- | 11/4/2020 | NA | | NA | NA | 1.000 | 1.000 | 11/04/20 BTM |
| G1654-FS1 | 0 | -- | 11/4/2020 | NA | | NA | NA | 1.000 | 1.000 | 11/04/20 BTM |
| G1661-FS1 | 0 | C | 11/4/2020 | NA | | NA | NA | 1.000 | 1.000 | 11/04/20 BTM |
| G1661-FS1 | 2 | -- | 11/9/2020 9:46:00 AM | G1661-FS1 | 0 | 1000 | 800 | 1.250 | 1.250 | 11/09/20 DMS |
| G1661-FS1-D | 3 | C | 11/9/2020 9:46:00 AM | G1661-FS1 | 0 | 1000 | 200 | 5.000 | 5.000 | 11/09/20 DMS |
| G1661-FS1-D | 4 | -- | 11/9/2020 9:49:00 AM | G1661-FS1-D | 3 | 1000 | 800 | 1.250 | 6.250 | 11/09/20 DMS |

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.(s)

100142218

20-1419**CTO-4532: PFAS in Water****SW**

| Extract | | * | Extract Date | Source | | Initial Extract Vol (uL) | Extract Split | Extract Split | Total Dilution | Date/Initials |
|-------------|---|----|----------------------|-------------|---|--------------------------|---------------|---------------|----------------|---------------|
| Name | # | | | Name | # | | | | | |
| G1661-FS1-D | 5 | C | 11/9/2020 9:49:00 AM | G1661-FS1-D | 3 | 1000 | 200 | 5.000 | 25.000 | 11/09/20 DMS |
| G1661-FS1-D | 6 | -- | 11/9/2020 9:57:00 AM | G1661-FS1-D | 5 | 1000 | 600 | 1.667 | 41.667 | 11/09/20 DMS |
| G1661-FS1-D | 7 | C | 11/9/2020 9:57:00 AM | G1661-FS1-D | 5 | 1000 | 400 | 2.500 | 62.500 | 11/09/20 DMS |
| G1661-FS1-D | 8 | -- | 11/9/2020 5:19:00 PM | G1661-FS1-D | 7 | 1000 | 600 | 1.667 | 104.167 | 11/09/20 RPK |
| G1661-FS1-D | 9 | -- | 11/9/2020 5:19:00 PM | G1661-FS1-D | 7 | 1000 | 400 | 2.500 | 156.250 | 11/09/20 RPK |
| G1668-FS1 | 0 | C | 11/4/2020 | NA | | NA | NA | 1.000 | 1.000 | 11/04/20 BTM |
| G1668-FS1 | 2 | -- | 11/9/2020 9:46:00 AM | G1668-FS1 | 0 | 1000 | 800 | 1.250 | 1.250 | 11/09/20 DMS |
| G1668-FS1-D | 3 | C | 11/9/2020 9:46:00 AM | G1668-FS1 | 0 | 1000 | 200 | 5.000 | 5.000 | 11/09/20 DMS |
| G1668-FS1-D | 4 | -- | 11/9/2020 9:49:00 AM | G1668-FS1-D | 3 | 1000 | 800 | 1.250 | 6.250 | 11/09/20 DMS |
| G1668-FS1-D | 5 | C | 11/9/2020 9:49:00 AM | G1668-FS1-D | 3 | 1000 | 200 | 5.000 | 25.000 | 11/09/20 DMS |
| G1668-FS1-D | 6 | -- | 11/9/2020 9:57:00 AM | G1668-FS1-D | 5 | 1000 | 900 | 1.111 | 27.778 | 11/09/20 DMS |
| G1668-FS1-D | 7 | -- | 11/9/2020 9:57:00 AM | G1668-FS1-D | 5 | 1000 | 100 | 10.000 | 250.000 | 11/09/20 DMS |

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

**BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE**

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.(s)

100142218

20-1419

**CTO-4532: PFAS in Water
SW**

| | | | |
|--|--|--|--|
| Purpose: LC-MS/MS TRANSFER | | Last Activity: Prep->Inst | |
| Relinquished On/By: Nov 6 2020 3:57PM LMG | | Received On/By: Nov 6 2020 3:57PM DMS | |
| Relinquished From: Sample Preparation: NA | | Received Location: LC Laboratory: NA | |
| Relinquish Comment: NA | | Received Comment: NA | |

| No. | BDO-ID: | PIV: | DF: | Condition: | Custody Comment: |
|-----|----------------|------|-----|------------|------------------|
| 1 | DB253PB-FS(0) | 1000 | 1 | Intact | NA |
| 2 | DB254LCS-FS(0) | 1000 | 1 | Intact | NA |
| 3 | G1644-FS1(0) | 1000 | 1 | Intact | NA |
| 4 | G1645-FS1(0) | 1000 | 1 | Intact | NA |
| 5 | G1646-FS1(0) | 1000 | 1 | Intact | NA |
| 6 | G1647-FS1(0) | 1000 | 1 | Intact | NA |
| 7 | G1651-FS1(0) | 1000 | 1 | Intact | NA |
| 8 | G1654-FS1(0) | 1000 | 1 | Intact | NA |
| 9 | G1661-FS1(0) | 1000 | 1 | Intact | NA |
| 10 | G1668-FS1(0) | 1000 | 1 | Intact | NA |

Total Extracts: 10



It can be done

**BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE**

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10

Project No.(s)

100142218

20-1419

**CTO-4532: PFAS in Water
SW**

| | | | |
|--|--|--|--|
| Purpose: LC-MS/MS TRANSFER | | Last Activity: Prep->Inst | |
| Relinquished On/By: Nov 9 2020 6:29PM RPK | | Received On/By: Nov 9 2020 6:29PM DMS | |
| Relinquished From: Sample Preparation: NA | | Received Location: LC Laboratory: NA | |
| Relinquish Comment: NA | | Received Comment: NA | |

| No. | BDO-ID: | PIV: | DF: | Condition: | Custody Comment: |
|-----|----------------|------|--------|------------|------------------|
| 1 | G1644-FS1-D(3) | 1000 | 5 | Intact | NA |
| 2 | G1644-FS1-D(5) | 1000 | 12.5 | Intact | NA |
| 3 | G1644-FS1-D(7) | 1000 | 31.25 | Intact | NA |
| 4 | G1645-FS1-D(3) | 1000 | 5 | Intact | NA |
| 5 | G1645-FS1-D(5) | 1000 | 12.5 | Intact | NA |
| 6 | G1645-FS1-D(7) | 1000 | 31.25 | Intact | NA |
| 7 | G1646-FS1-D(3) | 1000 | 5 | Intact | NA |
| 8 | G1647-FS1-D(3) | 1000 | 5 | Intact | NA |
| 9 | G1661-FS1-D(3) | 1000 | 5 | Intact | NA |
| 10 | G1661-FS1-D(5) | 1000 | 25 | Intact | NA |
| 11 | G1661-FS1-D(7) | 1000 | 62.5 | Intact | NA |
| 12 | G1661-FS1-D(9) | 1000 | 156.25 | Intact | NA |
| 13 | G1668-FS1-D(3) | 1000 | 5 | Intact | NA |
| 14 | G1668-FS1-D(5) | 1000 | 25 | Intact | NA |
| 15 | G1668-FS1-D(7) | 1000 | 250 | Intact | NA |

Total Extracts: 15



BATTELLE - NORWELL OPERATIONS SAMPLE SPECIFIC COMMENTS

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-
CBD) Site 10

Project No.(s)

100142218

20-1419

CTO-4532: PFAS in Water

SW

| Sample ID: | Comment: | Date/Initials: |
|-------------|---|----------------|
| DB253PB-FS | Sample was fortified per project plan, poured in to a centrifuge bottle and centrifuged at 3500 rpm for 5 minutes. Sample bottle was rinsed with milli-q water. Sample was then poured back into original container and centrifuge bottle was kept. | 11/04/20 AW |
| DB253PB-FS | Extraction began at 12:48PM, DW only manifold, ended at 1:38 PM. | 11/04/20 KH |
| DB254LCS-FS | Sample was fortified per project plan, poured in to a centrifuge bottle and centrifuged at 3500 rpm for 5 minutes. Sample bottle was rinsed with milli-q water. Sample was then poured back into original container and centrifuge bottle was kept. | 11/04/20 AW |
| DB254LCS-FS | Extraction began at 12:48PM, DW only manifold, ended at 1:38 PM. | 11/04/20 KH |
| G1644-FS1 | Extraction began at 12:48PM, manifold 6, ended at 2:08PM. | 11/04/20 BTM |
| G1645-FS1 | Extraction began at 12:48PM, manifold 6, ended at 3:42PM. | 11/04/20 BTM |
| G1645-FS1 | Sample clogged the top filter of the SPE cartridge during extraction, the filter was popped and left inside the SPE cartridge for the remainder of the extraction and elution process. | 11/04/20 BTM |
| G1646-FS1 | Extraction began at 12:48PM, manifold 6, ended at 3:48PM. | 11/04/20 BTM |
| G1646-FS1 | Sample clogged the top filter of the SPE cartridge during extraction, the filter was popped and left inside the SPE cartridge for the remainder of the extraction and elution process. | 11/04/20 BTM |
| G1647-FS1 | Extraction began at 12:48PM, manifold 6, ended at 3:51PM. | 11/04/20 BTM |
| G1647-FS1 | Sample clogged the top filter of the SPE cartridge during extraction, the filter was popped and left inside the SPE cartridge for the remainder of the extraction and elution process. | 11/04/20 BTM |
| G1651-FS1 | Extraction began at 12:48PM, manifold 6, ended at 4:15PM. | 11/04/20 BTM |
| G1651-FS1 | Sample clogged the top filter of the SPE cartridge during extraction, the filter was popped and left inside the SPE cartridge for the remainder of the extraction and elution process. | 11/04/20 BTM |
| G1654-FS1 | Sample was fortified per project plan, poured in to a centrifuge bottle and centrifuged at 3500 rpm for 5 minutes. Sample bottle was rinsed with milli-q water. Sample was then poured back into original container and centrifuge bottle was kept. | 11/04/20 AW |
| G1654-FS1 | Extraction began at 12:48PM, manifold 6, ended at 3:51PM. | 11/04/20 BTM |
| G1654-FS1 | Sample clogged the top filter of the SPE cartridge during extraction, the filter was popped and left inside the SPE cartridge for the remainder of the extraction and elution process. | 11/04/20 BTM |
| G1661-FS1 | Extraction began at 12:48PM, manifold 6, ended at 2:24PM. | 11/04/20 BTM |
| G1668-FS1 | Sample was fortified per project plan, poured in to a centrifuge bottle and centrifuged at 3500 rpm for 5 minutes. Sample bottle was rinsed with milli-q water. Sample was then poured back into original container and centrifuge bottle was kept. | 11/04/20 AW |
| G1668-FS1 | Extraction began at 12:48PM, manifold 6, ended at 2:24PM. | 11/04/20 BTM |



It can be done

**BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM**

Project Title(s)

CTO-4532: NRL Chesapeake Bay Detachment (NRL-
CBD) Site 10

Project No.(s)

100142218

20-1419

**CTO-4532: PFAS in Water
SW**

Entered By:

On:

Task Leader Approval:

On:

SupervisorApproval:

On:

PM Approval:

On:

Analytical Calibrations



Sequence Report

Created with Analyst Reporter
Printed: 10/11/2020 6:29:24 PM

| Vial | Laboratory Sample ID | Client Sample ID | Acquisition Date | Acquisition Method | Data File |
|------|----------------------|------------------|----------------------|--------------------|------------------------|
| 2 | LD74 | L1 | 11/5/2020 1:46:02 PM | 5-369.dam | AE_11052020_5-369.wiff |
| 3 | LD75 | L2 | 11/5/2020 1:56:29 PM | 5-369.dam | AE_11052020_5-369.wiff |
| 4 | LD76 | L3 | 11/5/2020 2:06:57 PM | 5-369.dam | AE_11052020_5-369.wiff |
| 5 | LD77 | L4 | 11/5/2020 2:17:24 PM | 5-369.dam | AE_11052020_5-369.wiff |
| 6 | LD78 | L5 | 11/5/2020 2:27:51 PM | 5-369.dam | AE_11052020_5-369.wiff |
| 7 | LD79 | L6 | 11/5/2020 2:38:18 PM | 5-369.dam | AE_11052020_5-369.wiff |
| 8 | LD80 IB | Instrument Blank | 11/5/2020 2:48:46 PM | 5-369.dam | AE_11052020_5-369.wiff |
| 9 | LD81 ICC | ICC | 11/5/2020 2:59:12 PM | 5-369.dam | AE_11052020_5-369.wiff |
| 10 | LE25 Branch | Branch Standard | 11/5/2020 3:09:41 PM | 5-369.dam | AE_11052020_5-369.wiff |



Sequence Report

Created with Analyst Reporter
Printed: 10/11/2020 6:30:51 PM

| Vial | Laboratory Sample ID | Client Sample ID | Acquisition Date | Acquisition Method | Data File |
|------|---------------------------|------------------|---------------------------------|----------------------|-----------------------------------|
| 2 | LD76 CCV | CCV | 11/6/2020 1:12:05 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 3 | LD79 | L6 | 11/6/2020 1:22:32 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 4 | LD80 IB | Instrument Blank | 11/6/2020 1:33:00 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 5 | MeOH | | 11/6/2020 1:43:28 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 6 | G1812-FS(0) | | 11/6/2020 1:53:55 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 7 | MeOH | | 11/6/2020 2:04:22 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 8 | LD77 CCV | | 11/6/2020 2:14:49 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 9 | G1699-FS(0) | | 11/6/2020 2:25:16 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 10 | G1697-FS(0) | | 11/6/2020 2:35:43 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 11 | G1701-FS(0) | | 11/6/2020 2:46:10 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 12 | G1702-FS(0) | | 11/6/2020 2:56:37 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 13 | MeOH | | 11/6/2020 3:07:05 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 15 | LD76 CCV | | 11/6/2020 3:17:33 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 14 | MeOH | | 11/6/2020 3:28:27 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 16 | DB041PB-FS(3) | | 11/6/2020 3:38:55 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 17 | DB042LCS-FS(3) | | 11/6/2020 3:49:23 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 18 | G0927-FS(3) | | 11/6/2020 3:59:51 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 19 | G0929-FS(3) | | 11/6/2020 4:10:19 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 20 | MeOH | | 11/6/2020 4:20:47 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 20 | MeOH | | 11/6/2020 4:31:16 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 21 | LD77 CCV | | 11/6/2020 4:41:44 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 22 | G0931-FS(3) | | 11/6/2020 4:52:13 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 23 | G0932-FS(3) | | 11/6/2020 5:02:40 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 24 | G0934-FS(3) | | 11/6/2020 5:13:09 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 25 | G0936-FS(3) | | 11/6/2020 5:23:36 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 26 | MeOH | | 11/6/2020 5:34:04 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 27 | MeOH | | 11/6/2020 5:44:32 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 28 | LD76 CCV | | 11/6/2020 5:55:00 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 26 | MeOH | | 11/6/2020 6:06:37 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 1 | MeOH | | 11/6/2020 6:17:05 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 1 | MeOH | | 11/6/2020 6:27:33 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 2 | LD77 CCV | | 11/6/2020 6:38:01 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 3 | G1805-FS-D(9) | | 11/6/2020 6:48:29 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 4 | G1807-FS-D(11) | | 11/6/2020 6:58:58 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 5 | G1813-FS-D(9) | | 11/6/2020 7:09:26 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 6 | G1813-FS-D(11) | | 11/6/2020 7:19:54 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 7 | MeOH | | 11/6/2020 7:30:23 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 8 | LD76 CCV | | 11/6/2020 7:40:51 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 9 | DB219PB-FS(0) | | 11/6/2020 7:51:19 PM | 5-369.dam | AE_11062020_5-369.wiff |



Sequence Report

Created with Analyst Reporter
Printed: 10/11/2020 6:30:51 PM

| Vial | Laboratory Sample ID | Client Sample ID | Acquisition Date | Acquisition Method | Data File |
|------|---------------------------|---------------------------|---------------------------------|----------------------|-----------------------------------|
| 10 | DB220LCS-FS(0) | | 11/6/2020 8:01:48 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 11 | G2447-FS(0) | | 11/6/2020 8:12:16 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 12 | G2447MS-FS(0) | | 11/6/2020 8:22:44 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 13 | G2447MSD-FS(0) | | 11/6/2020 8:33:12 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 14 | G2448-FS(0) | | 11/6/2020 8:43:40 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 15 | MeOH | | 11/6/2020 8:54:09 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 16 | LD77 CCV | | 11/6/2020 9:04:36 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 17 | MeOH | | 11/6/2020 9:15:04 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 18 | DB166PB-FS(0) | | 11/6/2020 9:25:32 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 19 | DB167LCS-FS(0) | | 11/6/2020 9:36:02 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 20 | G2338-FS(0) | | 11/6/2020 9:46:32 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 21 | G2343-FS(0) | | 11/6/2020 9:57:00 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 22 | MeOH | | 11/6/2020 10:07:29 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 23 | LD76 CCV | CCV | 11/6/2020 10:17:56 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 24 | MeOH | | 11/6/2020 10:28:25 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 25 | DB253PB-FS(0) | Procedural Blank | 11/6/2020 10:38:54 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 26 | DB254LCS-FS(0) | Laboratory Control Sample | 11/6/2020 10:49:21 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 27 | G1644-FS(0) | CBD-AOA-SW07-1020 | 11/6/2020 10:59:49 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 28 | G1645-FS(0) | CBD-AOA-SW05-1020 | 11/6/2020 11:10:17 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 29 | G1646-FS(0) | CBD-AOA-SW03-1020 | 11/6/2020 11:20:45 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 30 | G1647-FS(0) | CBD-AOA-SW04-1020 | 11/6/2020 11:31:12 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 31 | G1651-FS(0) | CBD-AOA-SW02-1020 | 11/6/2020 11:41:40 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 32 | G1654-FS(0) | CBD-AOA-SW01-1020 | 11/6/2020 11:52:08 PM | 5-369.dam | AE_11062020_5-369.wiff |
| 33 | MeOH | | 11/7/2020 12:02:35 AM | 5-369.dam | AE_11062020_5-369.wiff |
| 34 | LD77 CCV | CCV | 11/7/2020 12:13:05 AM | 5-369.dam | AE_11062020_5-369.wiff |
| 35 | G1661-FS1(0) | CBD-AOA-SW06-1020 | 11/7/2020 12:23:35 AM | 5-369.dam | AE_11062020_5-369.wiff |
| 36 | G1668-FS1(0) | CBD-AOA-SW09-1020 | 11/7/2020 12:34:03 AM | 5-369.dam | AE_11062020_5-369.wiff |
| 37 | MeOH | | 11/7/2020 12:44:32 AM | 5-369.dam | AE_11062020_5-369.wiff |
| 38 | LD76 CCV | CCV | 11/7/2020 12:54:59 AM | 5-369.dam | AE_11062020_5-369.wiff |

1



1. Samples from another batch, not reported with this one. DMS 11/10/2020



Sequence Report

Created with Analyst Reporter
Printed: 10/11/2020 6:34:23 PM

| Vial | Laboratory Sample ID | Client Sample ID | Acquisition Date | Acquisition Method | Data File |
|------|-----------------------------|------------------------------|----------------------------------|----------------------|-----------------------------------|
| 2 | LD76 CCV | CCV | 11/9/2020 9:25:12 AM | 5-369.dam | AE_11092020_5-369.wiff |
| 3 | LD79 | L6 | 11/9/2020 9:35:41 AM | 5-369.dam | AE_11092020_5-369.wiff |
| 4 | LD80 IB | Instrument Blank | 11/9/2020 9:46:09 AM | 5-369.dam | AE_11092020_5-369.wiff |
| 5 | DB042LCS-FS-D(5) | | 11/9/2020 9:56:38 AM | 5-369.dam | AE_11092020_5-369.wiff |
| 1 | MeOH | | 11/9/2020 11:31:16 AM | 5-369.dam | AE_11092020_5-369.wiff |
| 2 | DB166PB-FS(0) | | 11/9/2020 11:41:45 AM | 5-369.dam | AE_11092020_5-369.wiff |
| 3 | G2338-FS(0) | | 11/9/2020 11:52:15 AM | 5-369.dam | AE_11092020_5-369.wiff |
| 4 | G2343-FS(0) | | 11/9/2020 12:02:44 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 5 | MeOH | | 11/9/2020 12:13:11 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 6 | LD76 CCV | CCV | 11/9/2020 12:23:40 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 7 | G1644-FS1-D(3) | CBD-AOA-SW07-1020 | 11/9/2020 12:34:06 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 8 | G1644-FS1-D(5) | CBD-AOA-SW07-1020 | 11/9/2020 12:44:33 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 9 | G1645-FS1-D(3) | CBD-AOA-SW05-1020 | 11/9/2020 12:55:01 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 10 | G1645-FS1-D(5) | CBD-AOA-SW05-1020 | 11/9/2020 1:05:53 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 11 | G1645-FS1-D(7) | CBD-AOA-SW05-1020 | 11/9/2020 1:16:19 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 12 | G1646-FS1-D(3) | CBD-AOA-SW03-1020 | 11/9/2020 1:26:46 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 13 | G1647-FS1-D(3) | CBD-AOA-SW04-1020 | 11/9/2020 1:37:13 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 14 | G1661-FS1-D(3) | CBD-AOA-SW06-1020 | 11/9/2020 1:47:41 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 15 | MeOH | | 11/9/2020 1:58:09 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 16 | LD77 CCV | CCV | 11/9/2020 2:08:37 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 17 | G1661-FS1-D(5) | CBD-AOA-SW06-1020 | 11/9/2020 2:19:06 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 18 | G1661-FS1-D(7) | CBD-AOA-SW06-1020 | 11/9/2020 2:29:34 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 19 | G1668-FS1-D(3) | CBD-AOA-SW09-1020 | 11/9/2020 2:40:03 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 20 | G1668-FS1-D(5) | CBD-AOA-SW09-1020 | 11/9/2020 2:50:31 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 21 | G1668-FS1-D(7) | CBD-AOA-SW09-1020 | 11/9/2020 3:00:58 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 22 | MeOH | | 11/9/2020 3:11:25 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 23 | LD76 CCV | CCV | 11/9/2020 3:21:53 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 1 | G1903-FS(0) | | 11/9/2020 3:32:21 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 2 | G1905-FS(0) | | 11/9/2020 3:42:50 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 3 | G1906-FS(0) | | 11/9/2020 3:53:18 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 4 | G1907-FS(0) | | 11/9/2020 4:03:46 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 5 | G1908-FS(0) | | 11/9/2020 4:14:15 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 6 | G1909-FS(0) | | 11/9/2020 4:24:43 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 7 | G1911-FS(0) | | 11/9/2020 4:35:12 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 8 | G1912-FS(0) | | 11/9/2020 4:45:40 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 9 | MeOH | | 11/9/2020 4:56:08 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 10 | LD77 CCV | CCV | 11/9/2020 5:06:36 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 1 | MeOH | | 11/9/2020 5:48:11 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 2 | G1644-FS1-D(7) | CBD-AOA-SW07-1020 | 11/9/2020 5:58:41 PM | 5-369.dam | AE_11092020_5-369.wiff |

1. Samples from another batch, not reported with this one. DMS 11/10/2020
2. Dilution made and run but not needed. DMS 11/10/2020



Sequence Report

Created with Analyst Reporter
Printed: 10/11/2020 6:34:23 PM

| Vial | Laboratory Sample ID | Client Sample ID | Acquisition Date | Acquisition Method | Data File |
|------|----------------------|-------------------|----------------------|--------------------|------------------------|
| 3 | G1661-FS1-D(9) | CBD-AOA-SW06-1020 | 11/9/2020 6:09:10 PM | 5-369.dam | AE_11092020_5-369.wiff |
| 4 | LD76 CCV | CCV | 11/9/2020 6:19:40 PM | 5-369.dam | AE_11092020_5-369.wiff |



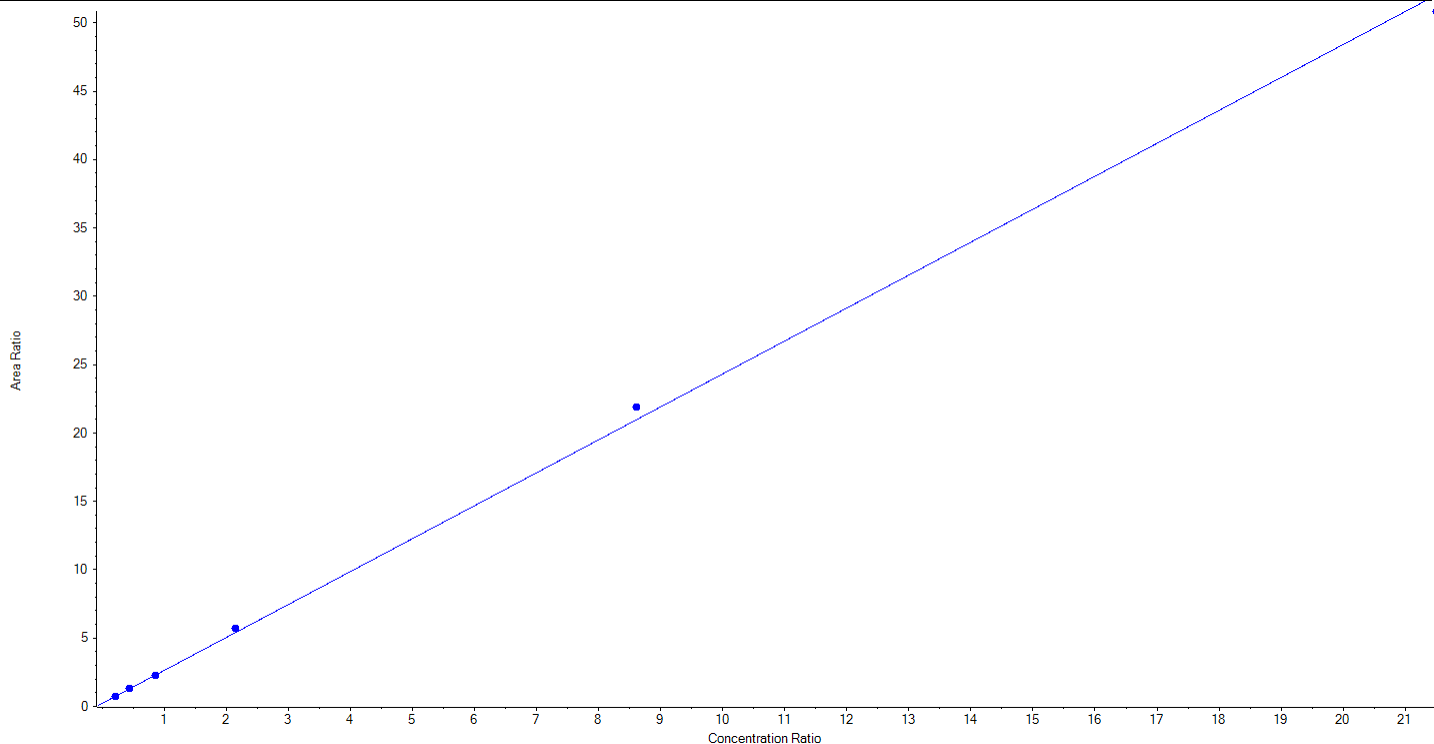
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

| | | | |
|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFBS_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 298.9 / 80.0 | Result Table | 20-1419 |
| Internal Standard | 13C3-PFBS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 2.40860x + 0.23835$ ($r = 0.99928$) (weighting: $1/x$) $r^2: 0.9986$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 224.32 | 89.7 |
| 3 | LD75 | L2 | True | 500.00 | 524.64 | 104.9 |
| 4 | LD76 | L3 | True | 1000.00 | 967.62 | 96.8 |
| 5 | LD77 | L4 | True | 2500.00 | 2657.99 | 106.3 |
| 6 | LD78 | L5 | True | 10000.00 | 10460.31 | 104.6 |
| 7 | LD79 | L6 | True | 25000.00 | 24415.12 | 97.7 |





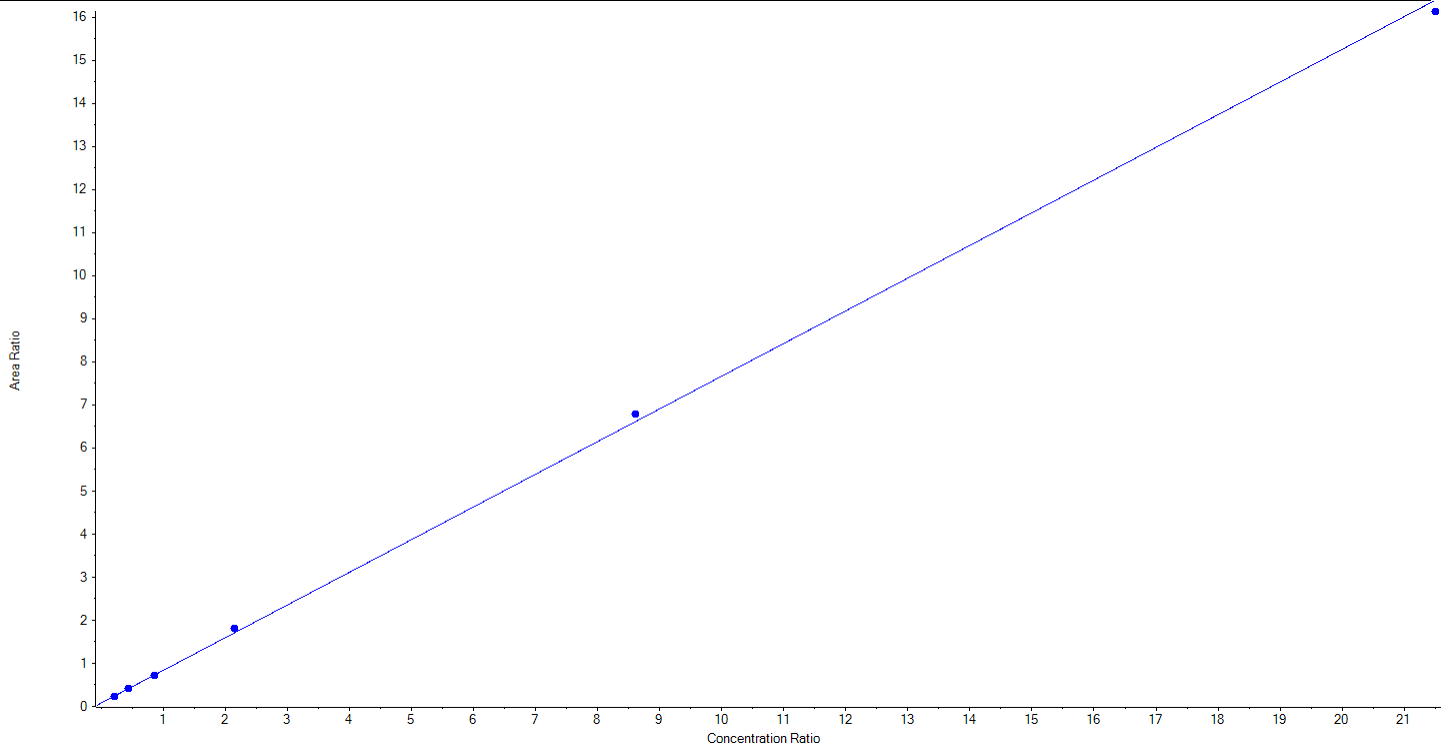
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

| | | | |
|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFBS_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 298.9 / 99.0 | Result Table | 20-1419 |
| Internal Standard | 13C3-PFBS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.75852 x + 0.08279$ ($r = 0.99958$) (weighting: $1 / x$) $r^2: 0.9992$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 219.02 | 87.6 |
| 3 | LD75 | L2 | True | 500.00 | 532.03 | 106.4 |
| 4 | LD76 | L3 | True | 1000.00 | 986.84 | 98.7 |
| 5 | LD77 | L4 | True | 2500.00 | 2658.51 | 106.3 |
| 6 | LD78 | L5 | True | 10000.00 | 10257.86 | 102.6 |
| 7 | LD79 | L6 | True | 25000.00 | 24595.73 | 98.4 |





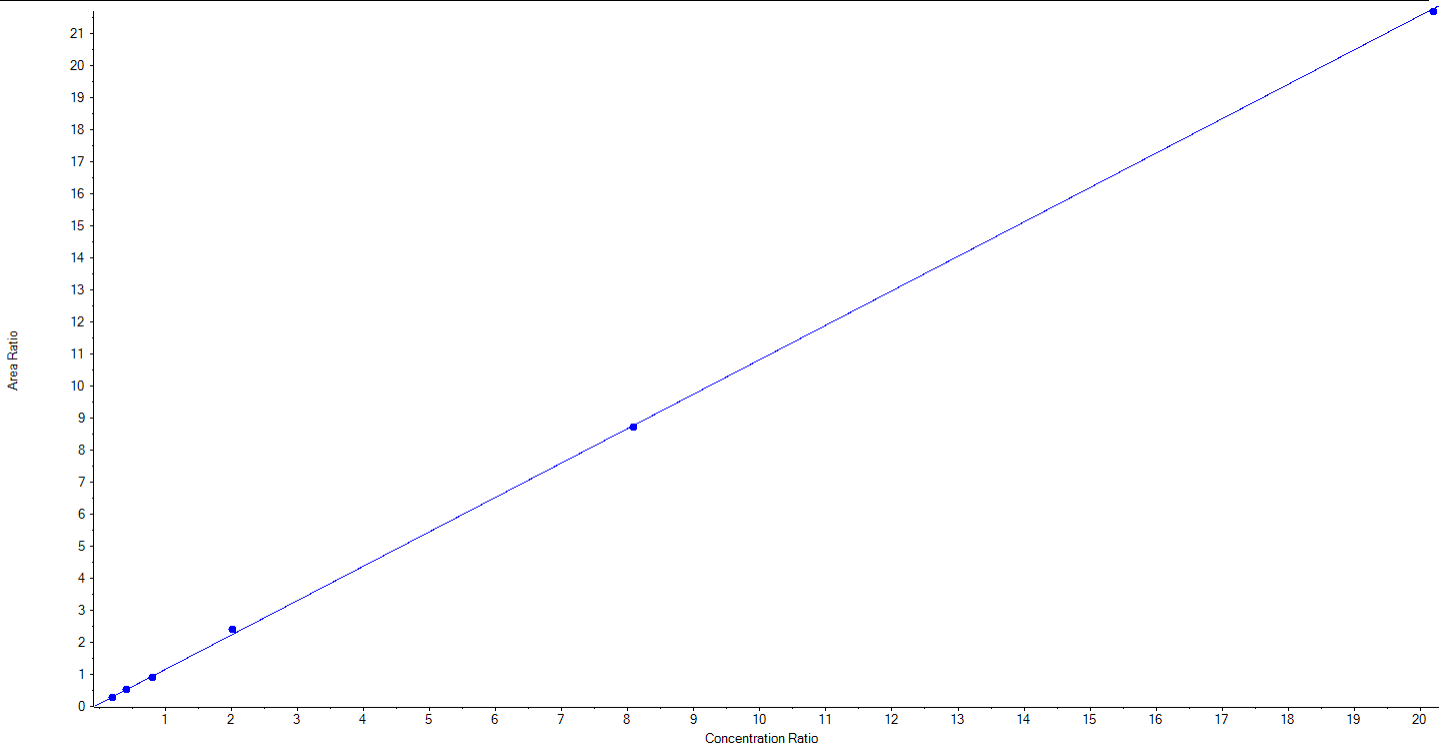
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

| | | | |
|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFHxA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 313.0 / 269.0 | Result Table | 20-1419 |
| Internal Standard | 13C5-PFHxA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.07473x + 0.08521$ ($r = 0.99973$) (weighting: $1/x$) $r^2: 0.9995$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 252.50 | 233.71 | 92.6 |
| 3 | LD75 | L2 | True | 505.00 | 533.78 | 105.7 |
| 4 | LD76 | L3 | True | 1010.00 | 963.52 | 95.4 |
| 5 | LD77 | L4 | True | 2525.00 | 2705.09 | 107.1 |
| 6 | LD78 | L5 | True | 10100.00 | 10063.50 | 99.6 |
| 7 | LD79 | L6 | True | 25250.00 | 25142.90 | 99.6 |





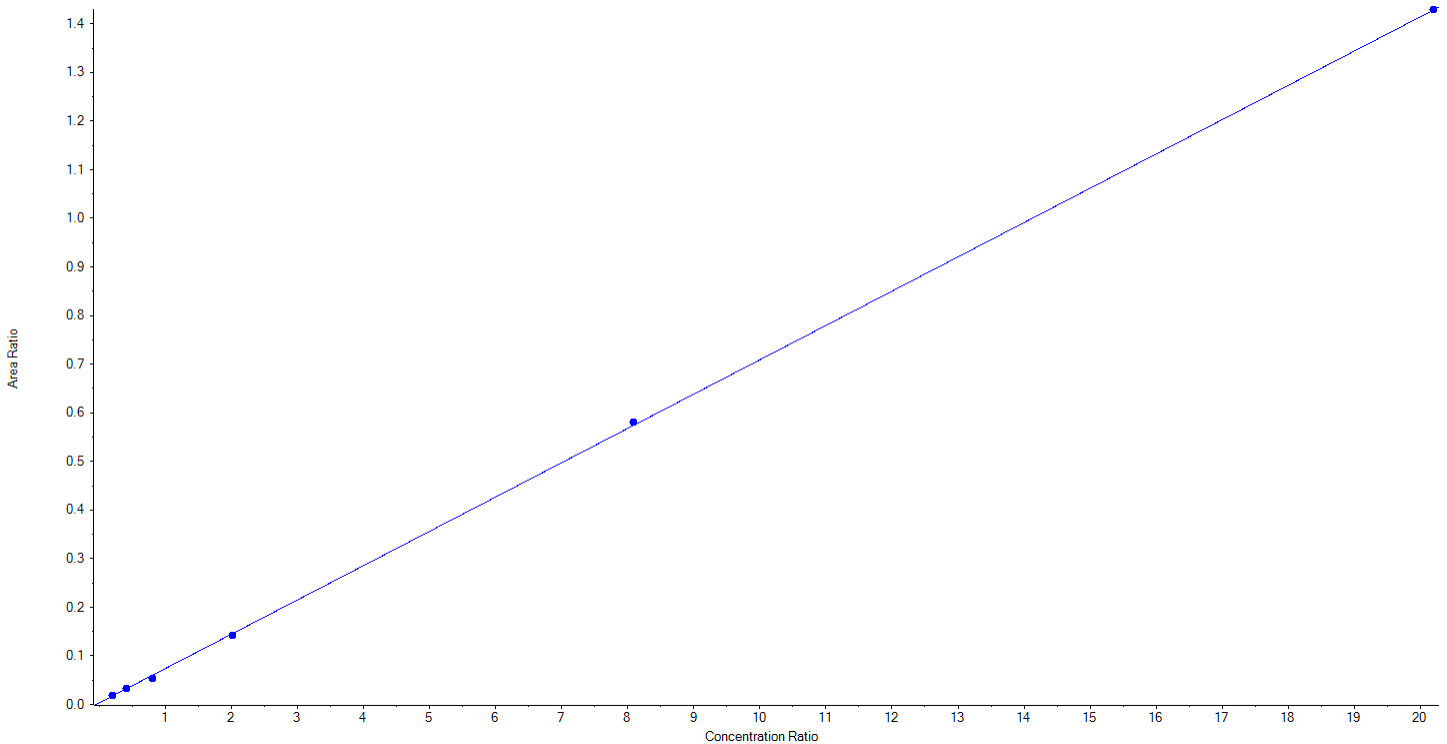
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

| | | | |
|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFHxA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 313.0 / 119.0 | Result Table | 20-1419 |
| Internal Standard | 13C5-PFHxA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.07054 x + 0.00362$ ($r = 0.99970$) (weighting: $1/x$) $r^2: 0.9994$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 252.50 | 273.11 | 108.2 |
| 3 | LD75 | L2 | True | 505.00 | 531.46 | 105.2 |
| 4 | LD76 | L3 | True | 1010.00 | 887.72 | 87.9 |
| 5 | LD77 | L4 | True | 2525.00 | 2459.46 | 97.4 |
| 6 | LD78 | L5 | True | 10100.00 | 10225.09 | 101.2 |
| 7 | LD79 | L6 | True | 25250.00 | 25265.67 | 100.1 |





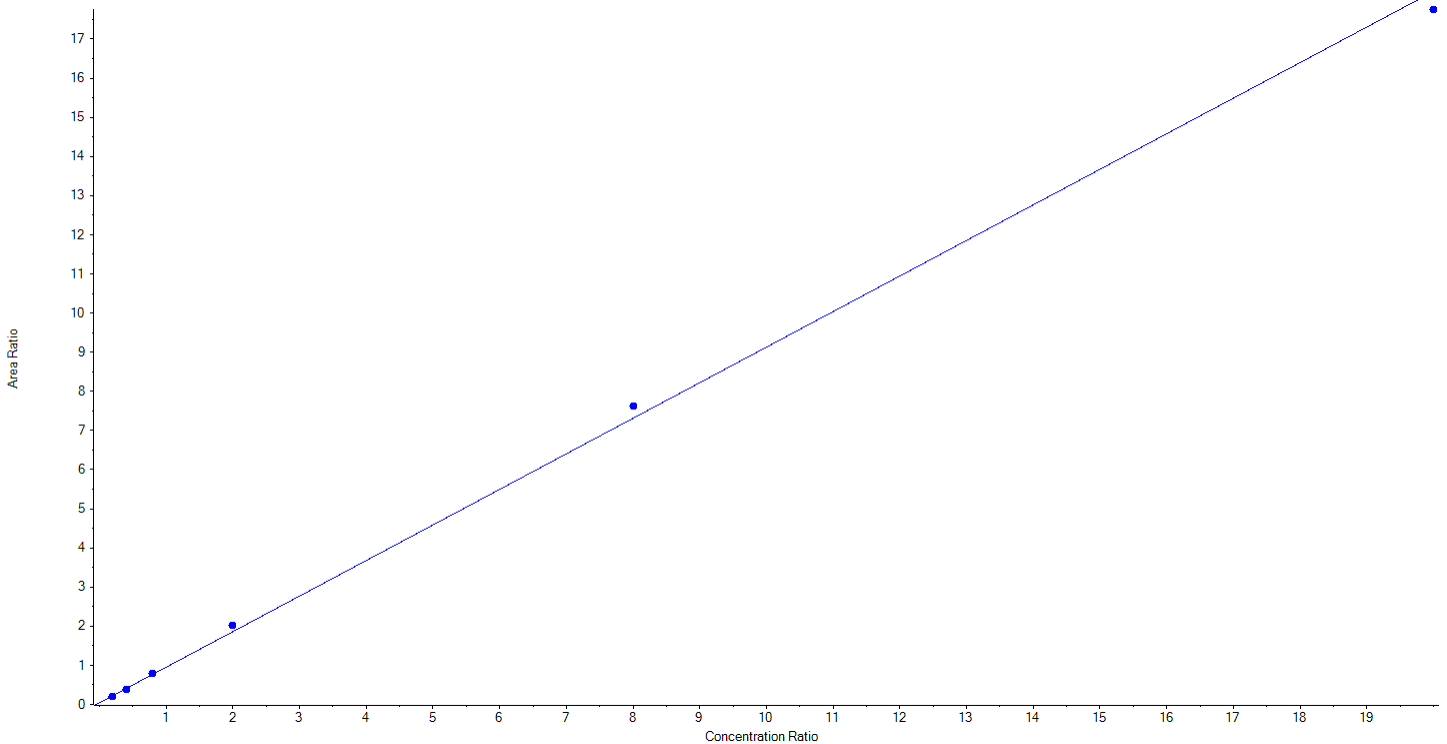
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

| | | | |
|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFHpA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 363.0 / 319.0 | Result Table | 20-1419 |
| Internal Standard | 13C4-PFHpA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.90848x + 0.04443$ ($r = 0.99913$) (weighting: $1/x$) $r^2: 0.9983$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 236.85 | 94.7 |
| 3 | LD75 | L2 | True | 500.00 | 457.99 | 91.6 |
| 4 | LD76 | L3 | True | 1000.00 | 1028.84 | 102.9 |
| 5 | LD77 | L4 | True | 2500.00 | 2723.53 | 108.9 |
| 6 | LD78 | L5 | True | 10000.00 | 10437.37 | 104.4 |
| 7 | LD79 | L6 | True | 25000.00 | 24365.41 | 97.5 |





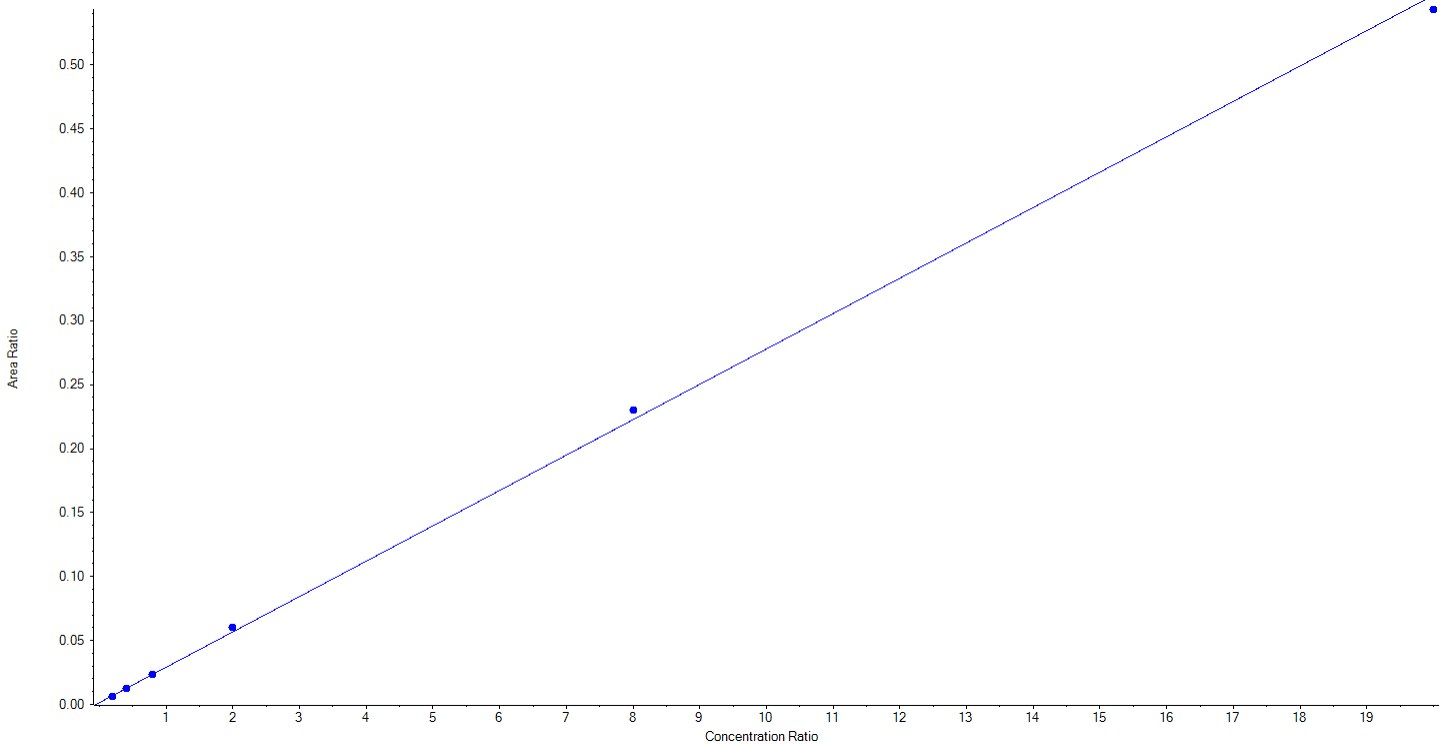
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

| | | | |
|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFHpA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 363.0 / 169.0 | Result Table | 20-1419 |
| Internal Standard | 13C4-PFHpA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.02765x + 0.00146$ ($r = 0.99949$) (weighting: $1/x$) $r^2: 0.9990$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 225.58 | 90.2 |
| 3 | LD75 | L2 | True | 500.00 | 504.36 | 100.9 |
| 4 | LD76 | L3 | True | 1000.00 | 1011.10 | 101.1 |
| 5 | LD77 | L4 | True | 2500.00 | 2655.85 | 106.2 |
| 6 | LD78 | L5 | True | 10000.00 | 10356.54 | 103.6 |
| 7 | LD79 | L6 | True | 25000.00 | 24496.57 | 98.0 |





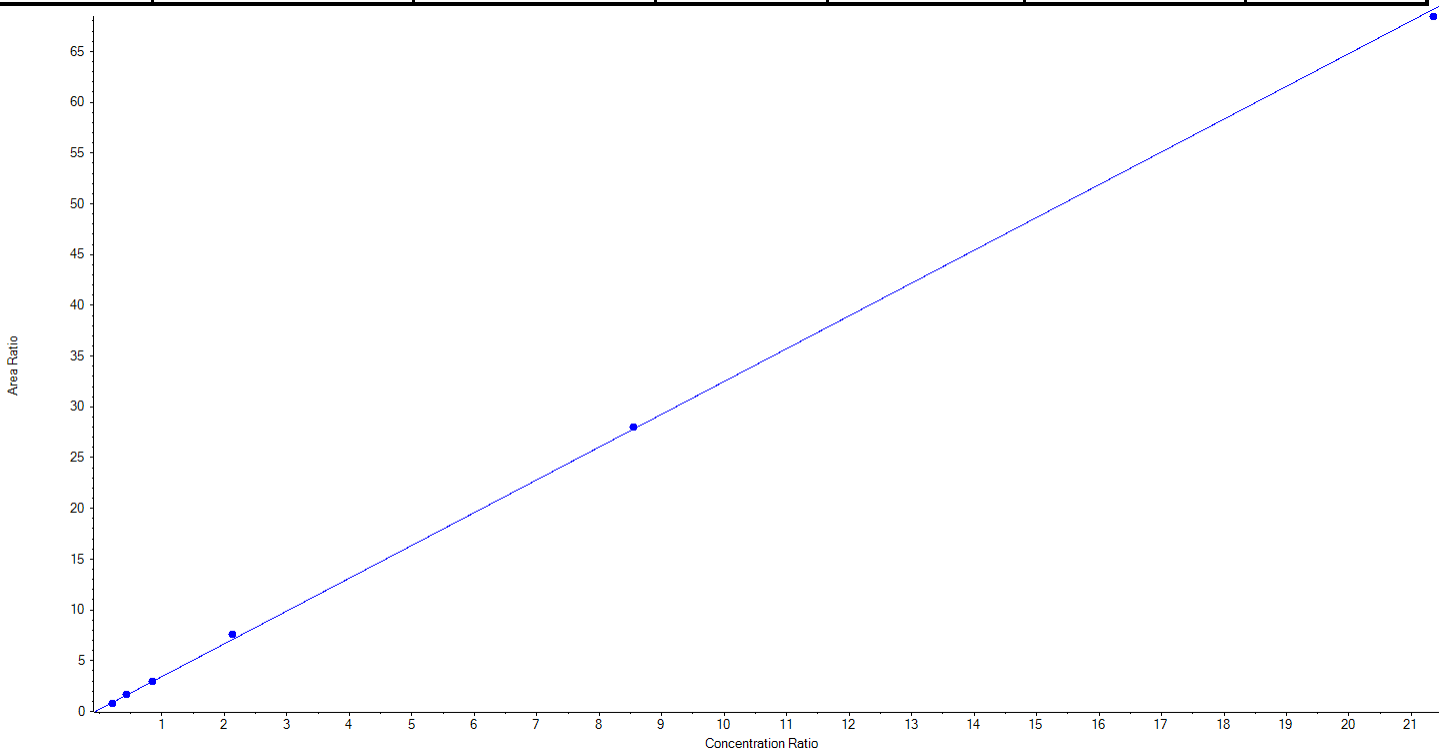
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

| | | | |
|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFHxS_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 399.0 / 80.0 | Result Table | 20-1419 |
| Internal Standard | 13C3-PFHxS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 3.22958x + 0.20551$ ($r = 0.99972$) (weighting: $1/x$) $r^2: 0.9994$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 252.50 | 221.39 | 87.7 |
| 3 | LD75 | L2 | True | 505.00 | 530.50 | 105.1 |
| 4 | LD76 | L3 | True | 1010.00 | 1018.01 | 100.8 |
| 5 | LD77 | L4 | True | 2525.00 | 2690.88 | 106.6 |
| 6 | LD78 | L5 | True | 10100.00 | 10197.19 | 101.0 |
| 7 | LD79 | L6 | True | 25250.00 | 24984.54 | 99.0 |





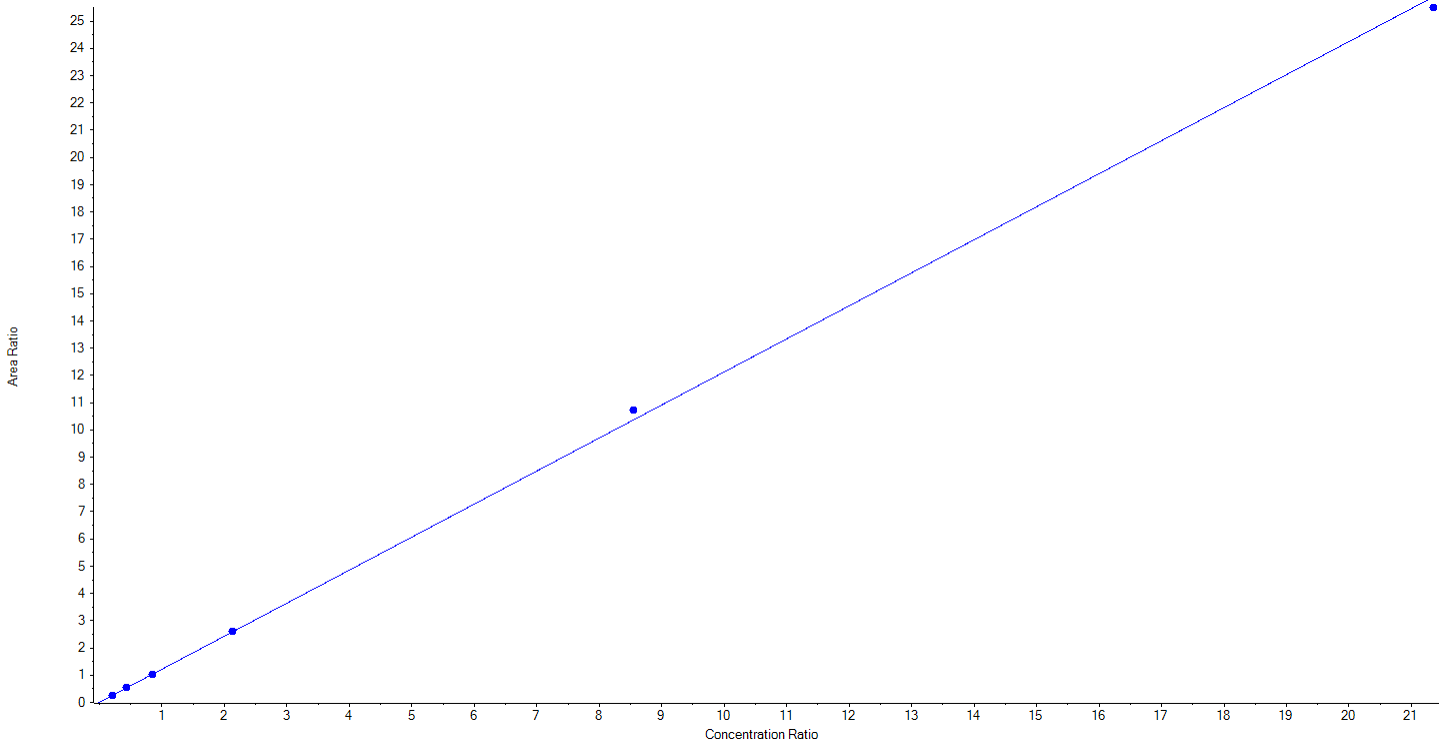
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

| | | | |
|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFHxS_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 399.0 / 99.0 | Result Table | 20-1419 |
| Internal Standard | 13C3-PFHxS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.21209x + 0.00785$ ($r = 0.99964$) (weighting: $1/x$) $r^2: 0.9993$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 252.50 | 229.31 | 90.8 |
| 3 | LD75 | L2 | True | 505.00 | 546.03 | 108.1 |
| 4 | LD76 | L3 | True | 1010.00 | 999.24 | 98.9 |
| 5 | LD77 | L4 | True | 2525.00 | 2522.73 | 99.9 |
| 6 | LD78 | L5 | True | 10100.00 | 10476.15 | 103.7 |
| 7 | LD79 | L6 | True | 25250.00 | 24869.04 | 98.5 |





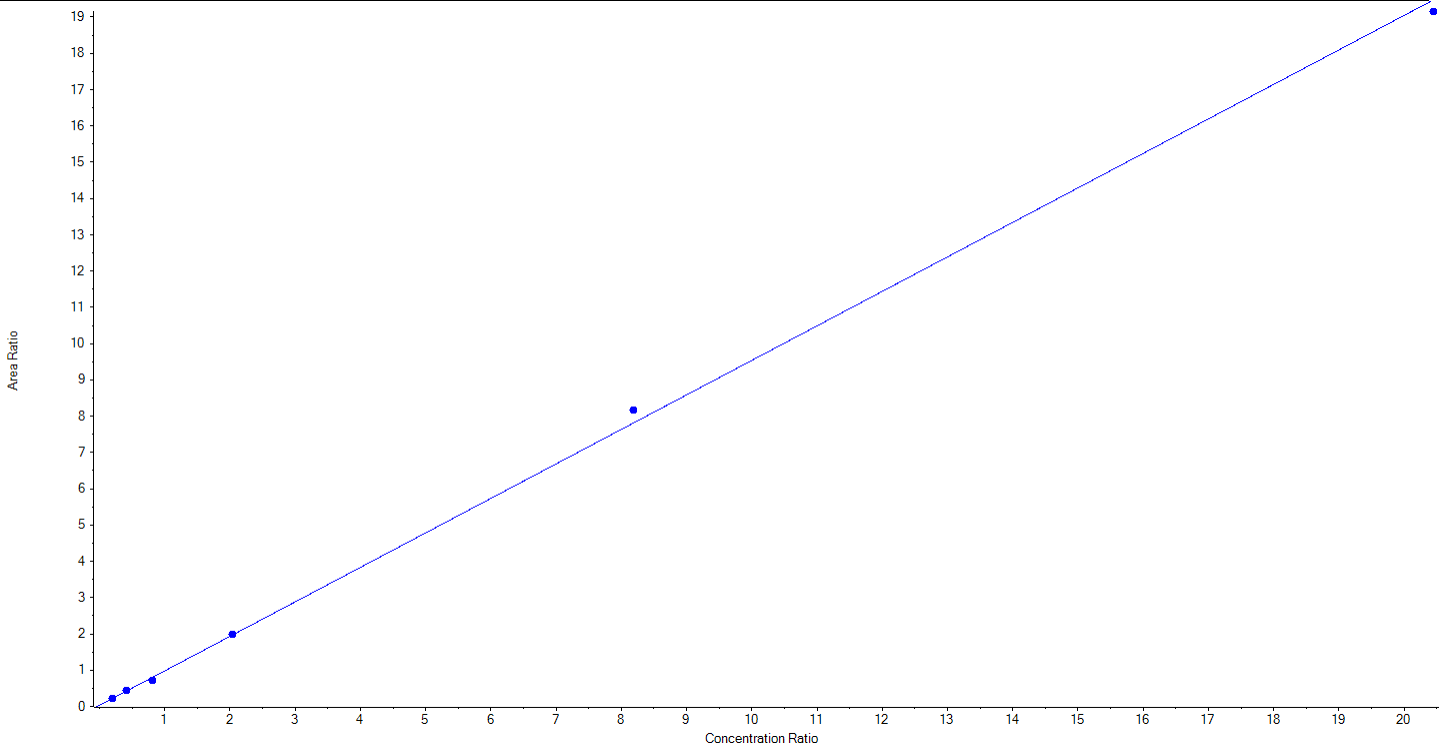
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFOA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 413.0 / 369.0 | Result Table | 20-1419 |
| Internal Standard | 13C8-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.95076x + 0.03018$ ($r = 0.99935$) (weighting: $1/x$) $r^2: 0.9987$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 246.16 | 98.5 |
| 3 | LD75 | L2 | True | 500.00 | 544.76 | 109.0 |
| 4 | LD76 | L3 | True | 1000.00 | 894.52 | 89.5 |
| 5 | LD77 | L4 | True | 2500.00 | 2500.23 | 100.0 |
| 6 | LD78 | L5 | True | 10000.00 | 10477.64 | 104.8 |
| 7 | LD79 | L6 | True | 25000.00 | 24586.69 | 98.4 |





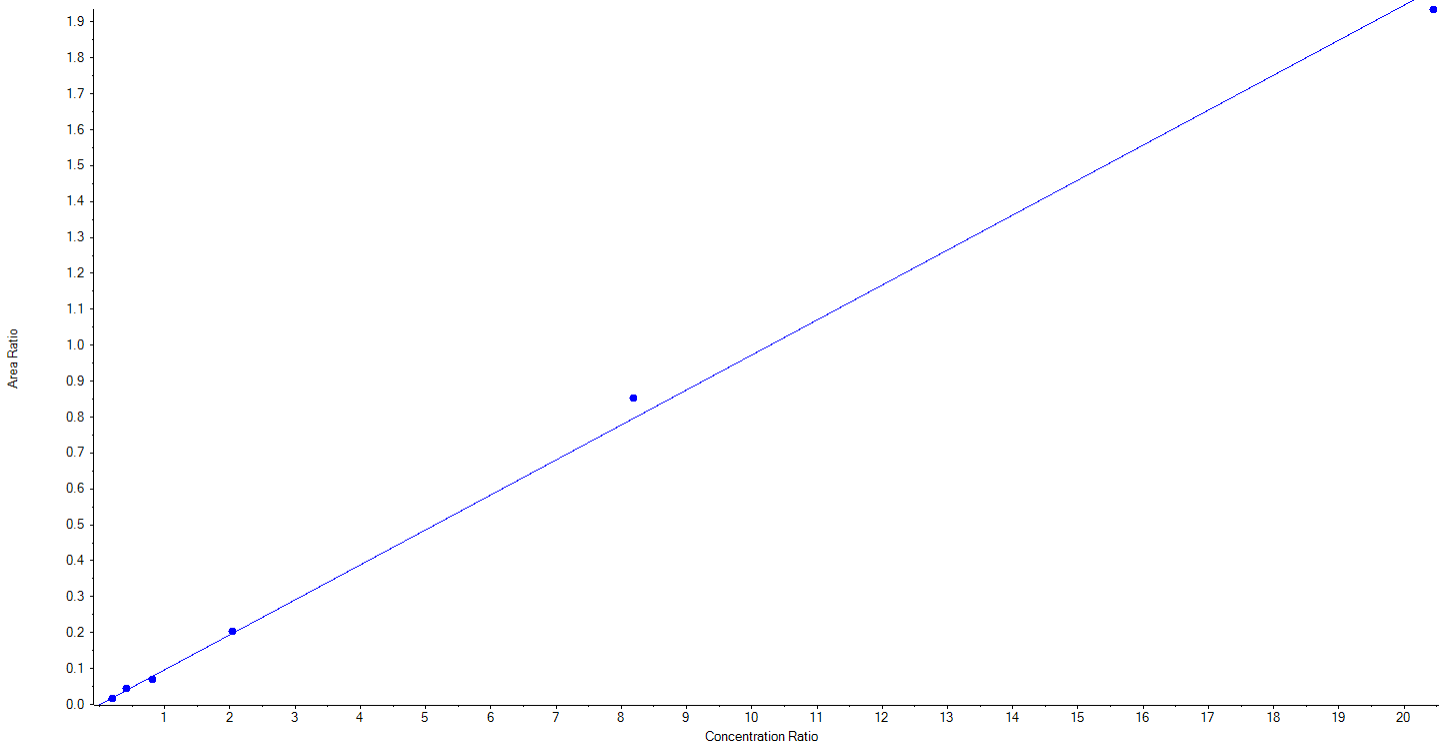
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFOA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 413.0 / 169.0 | Result Table | 20-1419 |
| Internal Standard | 13C8-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.09737x + -8.35170e-4$ ($r = 0.99860$) (weighting: $1/x$) $r^2: 0.9972$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 231.68 | 92.7 |
| 3 | LD75 | L2 | True | 500.00 | 563.38 | 112.7 |
| 4 | LD76 | L3 | True | 1000.00 | 880.97 | 88.1 |
| 5 | LD77 | L4 | True | 2500.00 | 2553.39 | 102.1 |
| 6 | LD78 | L5 | True | 10000.00 | 10722.57 | 107.2 |
| 7 | LD79 | L6 | True | 25000.00 | 24298.01 | 97.2 |





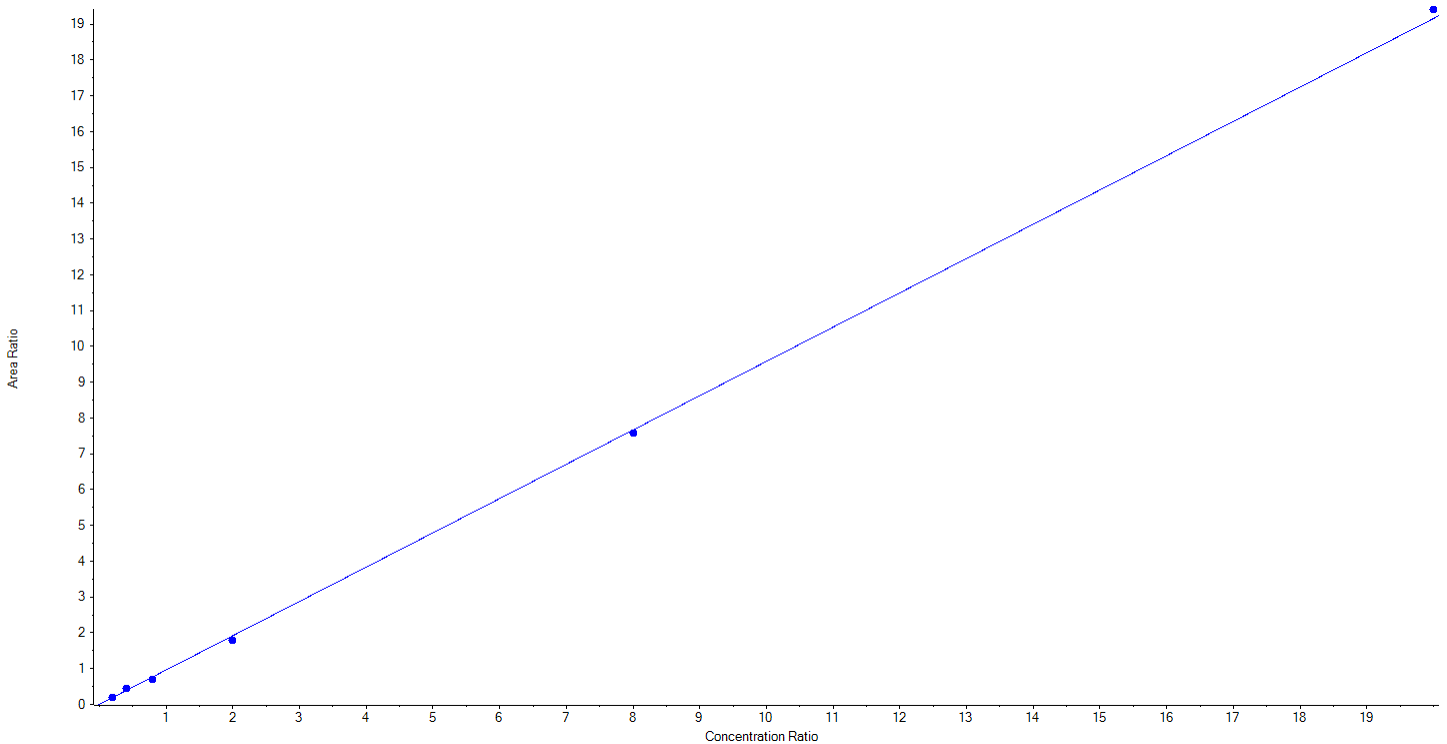
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFNA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 463.0 / 419.0 | Result Table | 20-1419 |
| Internal Standard | 13C9-PFNA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.95760 x + 0.00623$ ($r = 0.99943$) (weighting: $1 / x$) $r^2: 0.9989$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 264.96 | 106.0 |
| 3 | LD75 | L2 | True | 500.00 | 561.12 | 112.2 |
| 4 | LD76 | L3 | True | 1000.00 | 887.17 | 88.7 |
| 5 | LD77 | L4 | True | 2500.00 | 2322.40 | 92.9 |
| 6 | LD78 | L5 | True | 10000.00 | 9887.37 | 98.9 |
| 7 | LD79 | L6 | True | 25000.00 | 25326.99 | 101.3 |





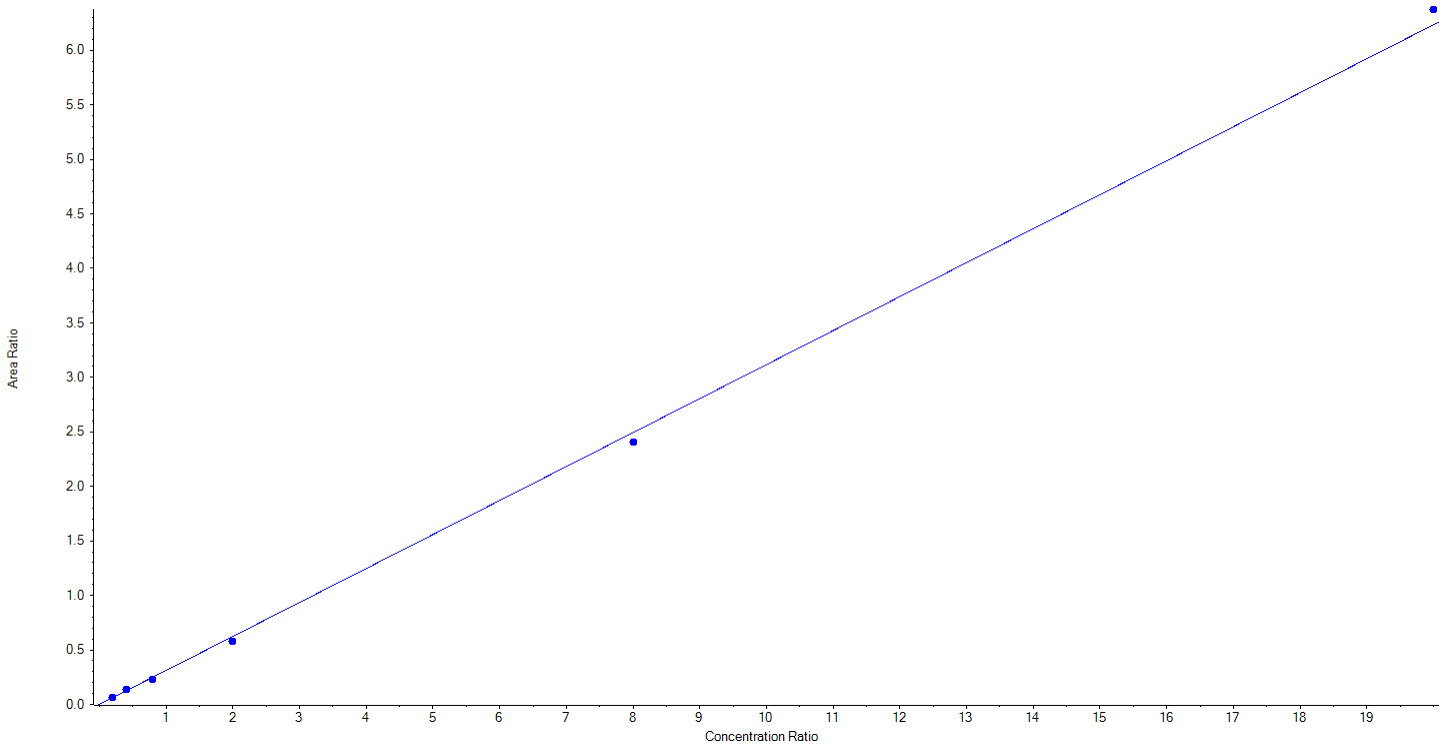
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFNA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 463.0 / 219.0 | Result Table | 20-1419 |
| Internal Standard | 13C9-PFNA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.31163x + 0.00112$ ($r = 0.99924$) (weighting: $1/x$) $r^2: 0.9985$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 268.61 | 107.5 |
| 3 | LD75 | L2 | True | 500.00 | 550.24 | 110.1 |
| 4 | LD76 | L3 | True | 1000.00 | 907.21 | 90.7 |
| 5 | LD77 | L4 | True | 2500.00 | 2330.61 | 93.2 |
| 6 | LD78 | L5 | True | 10000.00 | 9631.41 | 96.3 |
| 7 | LD79 | L6 | True | 25000.00 | 25561.92 | 102.3 |





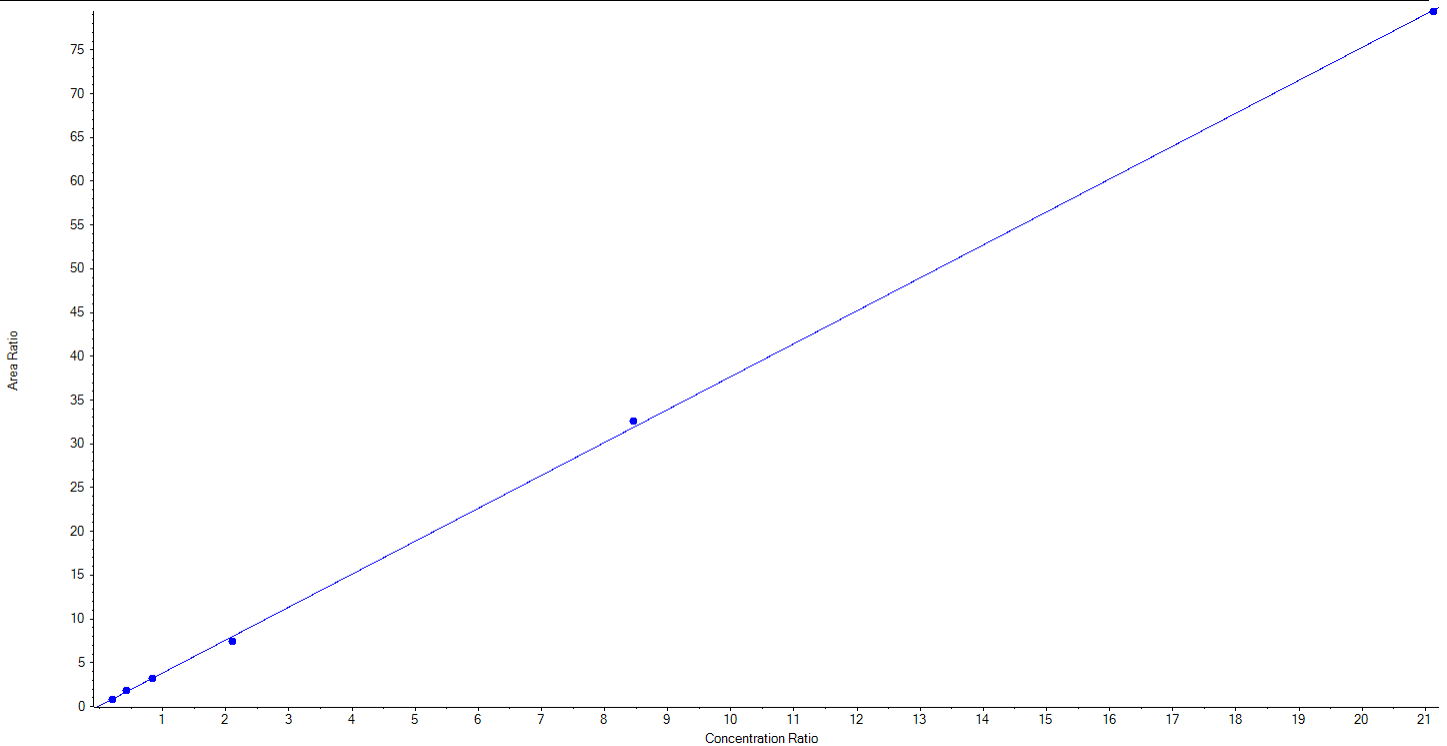
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFOS_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 499.0 / 80.0 | Result Table | 20-1419 |
| Internal Standard | 13C8-PFOS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 3.76103x + 0.06746$ ($r = 0.99958$) (weighting: $1/x$) $r^2: 0.9992$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 252.50 | 242.46 | 96.0 |
| 3 | LD75 | L2 | True | 505.00 | 567.77 | 112.4 |
| 4 | LD76 | L3 | True | 1010.00 | 983.67 | 97.4 |
| 5 | LD77 | L4 | True | 2525.00 | 2327.07 | 92.2 |
| 6 | LD78 | L5 | True | 10100.00 | 10321.41 | 102.2 |
| 7 | LD79 | L6 | True | 25250.00 | 25200.13 | 99.8 |





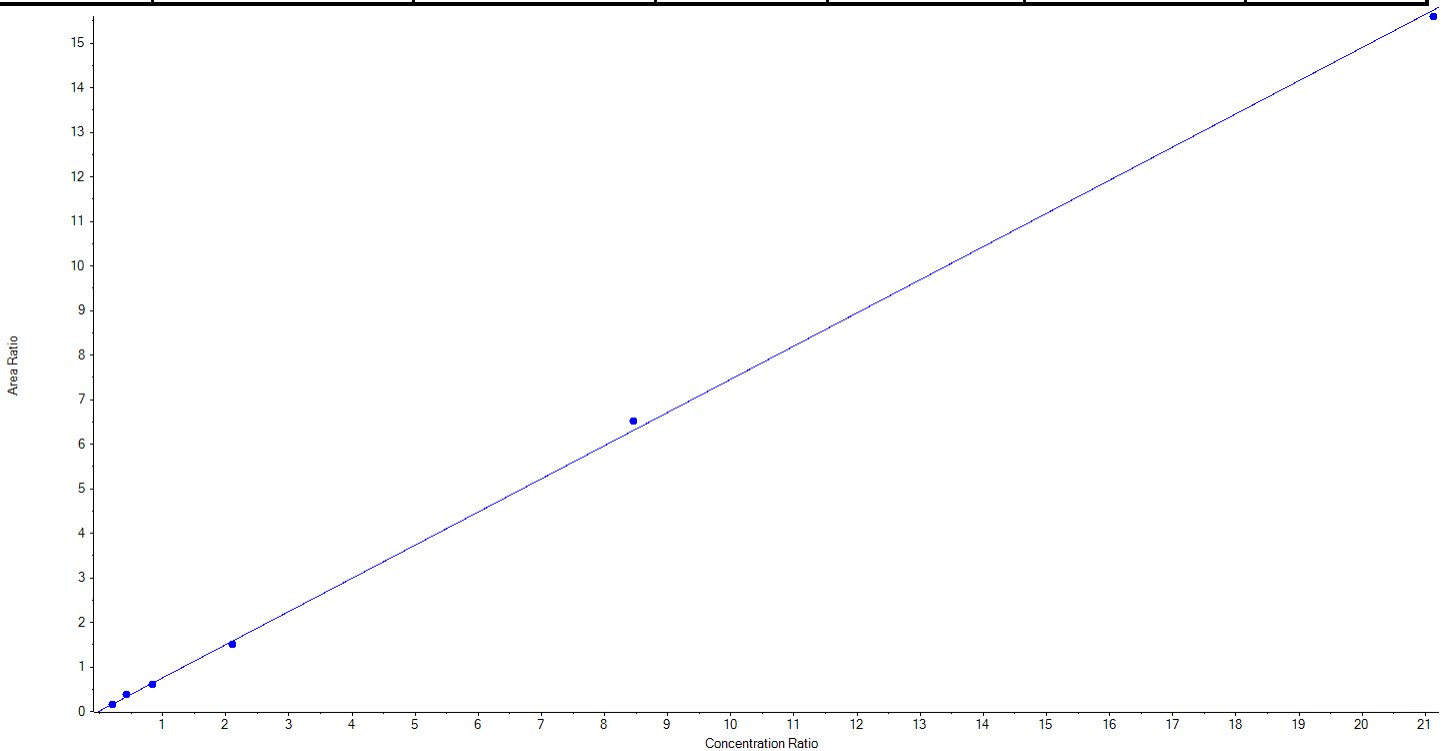
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFOS_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 499.0 / 99.0 | Result Table | 20-1419 |
| Internal Standard | 13C8-PFOS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.74470x + 0.01062$ ($r = 0.99946$) (weighting: $1/x$) $r^2: 0.9989$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 252.50 | 230.42 | 91.3 |
| 3 | LD75 | L2 | True | 505.00 | 585.81 | 116.0 |
| 4 | LD76 | L3 | True | 1010.00 | 961.29 | 95.2 |
| 5 | LD77 | L4 | True | 2525.00 | 2399.60 | 95.0 |
| 6 | LD78 | L5 | True | 10100.00 | 10449.07 | 103.5 |
| 7 | LD79 | L6 | True | 25250.00 | 25016.30 | 99.1 |





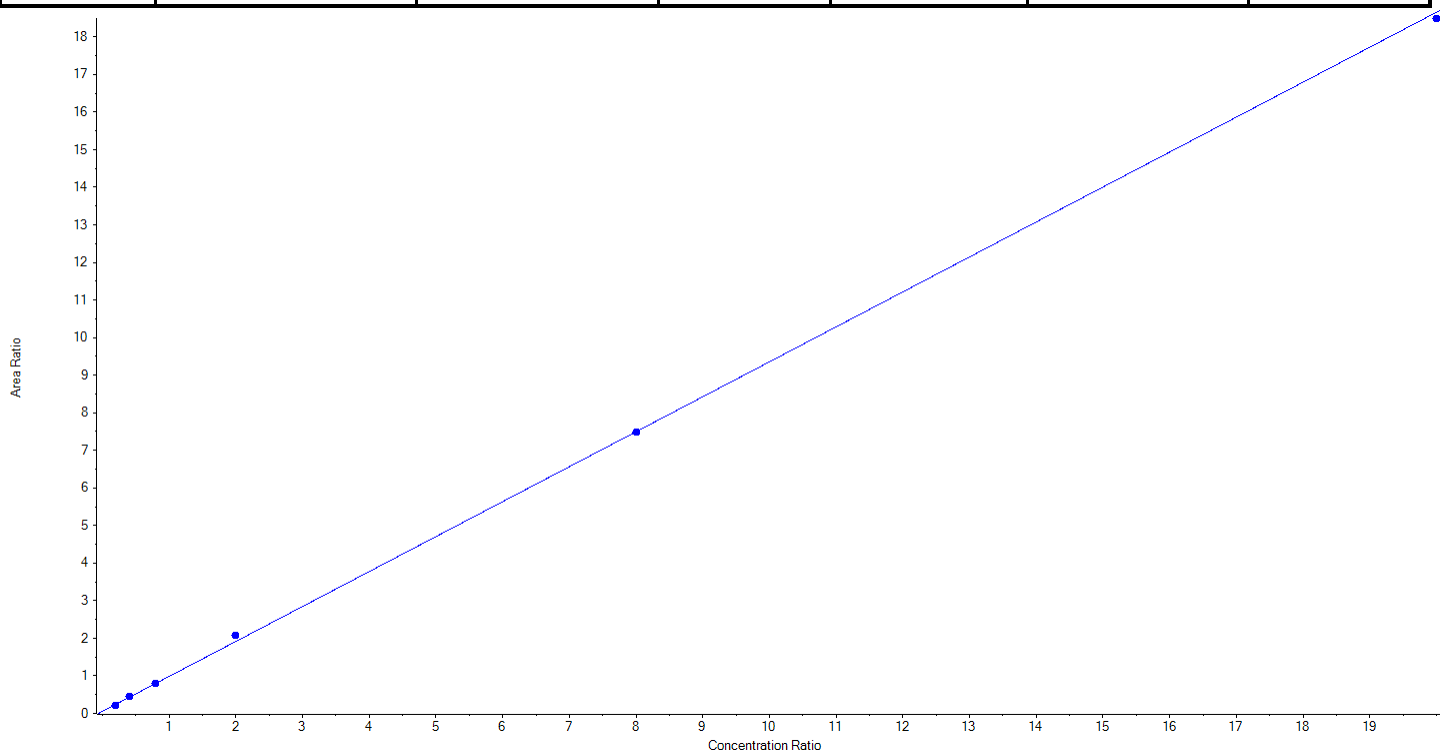
Calibration Summary Report

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Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFDA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 513.0 / 469.0 | Result Table | 20-1419 |
| Internal Standard | 13C6-PFDA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.92991x + 0.05666$ ($r = 0.99958$) (weighting: $1/x$) $r^2: 0.9992$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 216.20 | 86.5 |
| 3 | LD75 | L2 | True | 500.00 | 525.74 | 105.2 |
| 4 | LD76 | L3 | True | 1000.00 | 1000.74 | 100.1 |
| 5 | LD77 | L4 | True | 2500.00 | 2729.15 | 109.2 |
| 6 | LD78 | L5 | True | 10000.00 | 10003.38 | 100.0 |
| 7 | LD79 | L6 | True | 25000.00 | 24774.79 | 99.1 |





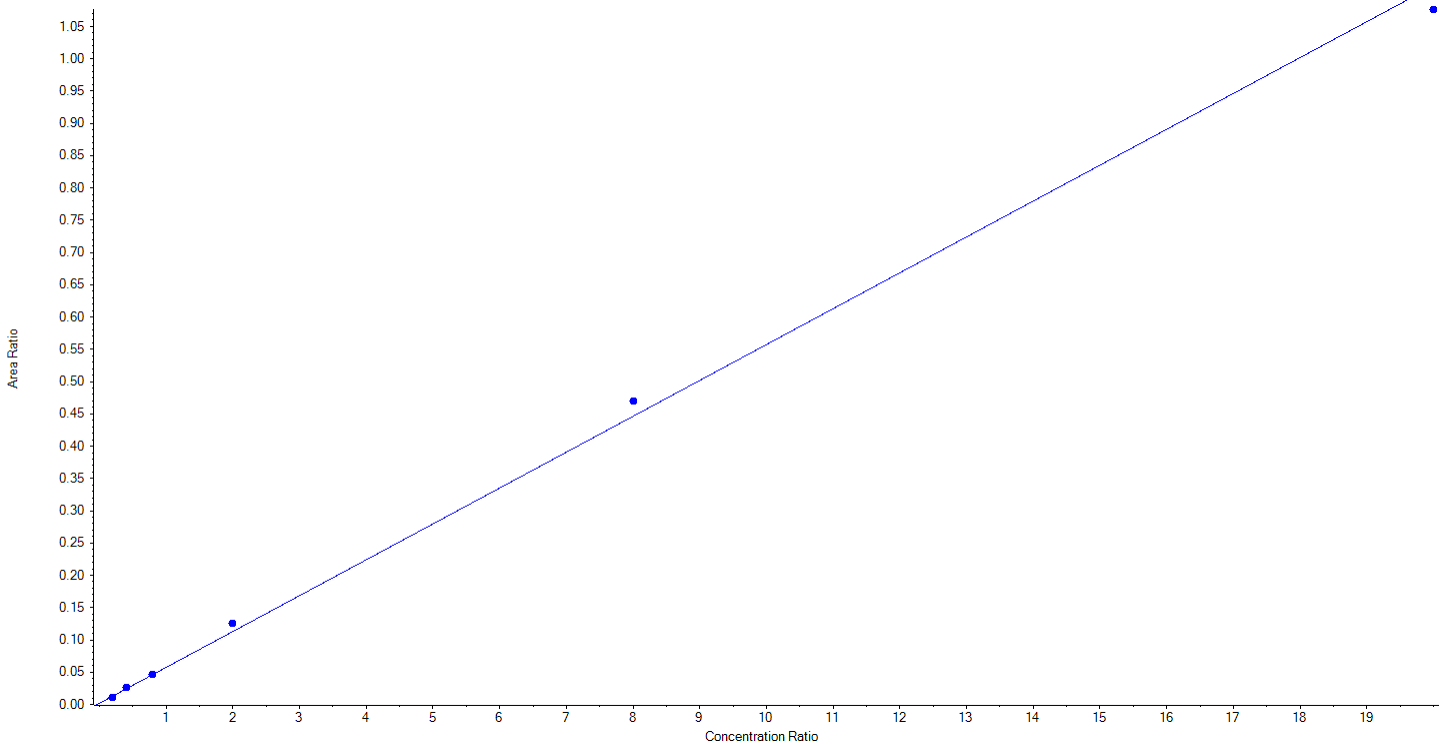
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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFDA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 513.0 / 219.0 | Result Table | 20-1419 |
| Internal Standard | 13C6-PFDA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.05555x + 0.00194$ ($r = 0.99845$) (weighting: $1/x$) $r^2: 0.9969$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 191.45 | 76.6 |
| 3 | LD75 | L2 | True | 500.00 | 544.21 | 108.8 |
| 4 | LD76 | L3 | True | 1000.00 | 1010.68 | 101.1 |
| 5 | LD77 | L4 | True | 2500.00 | 2783.88 | 111.4 |
| 6 | LD78 | L5 | True | 10000.00 | 10545.70 | 105.5 |
| 7 | LD79 | L6 | True | 25000.00 | 24174.07 | 96.7 |





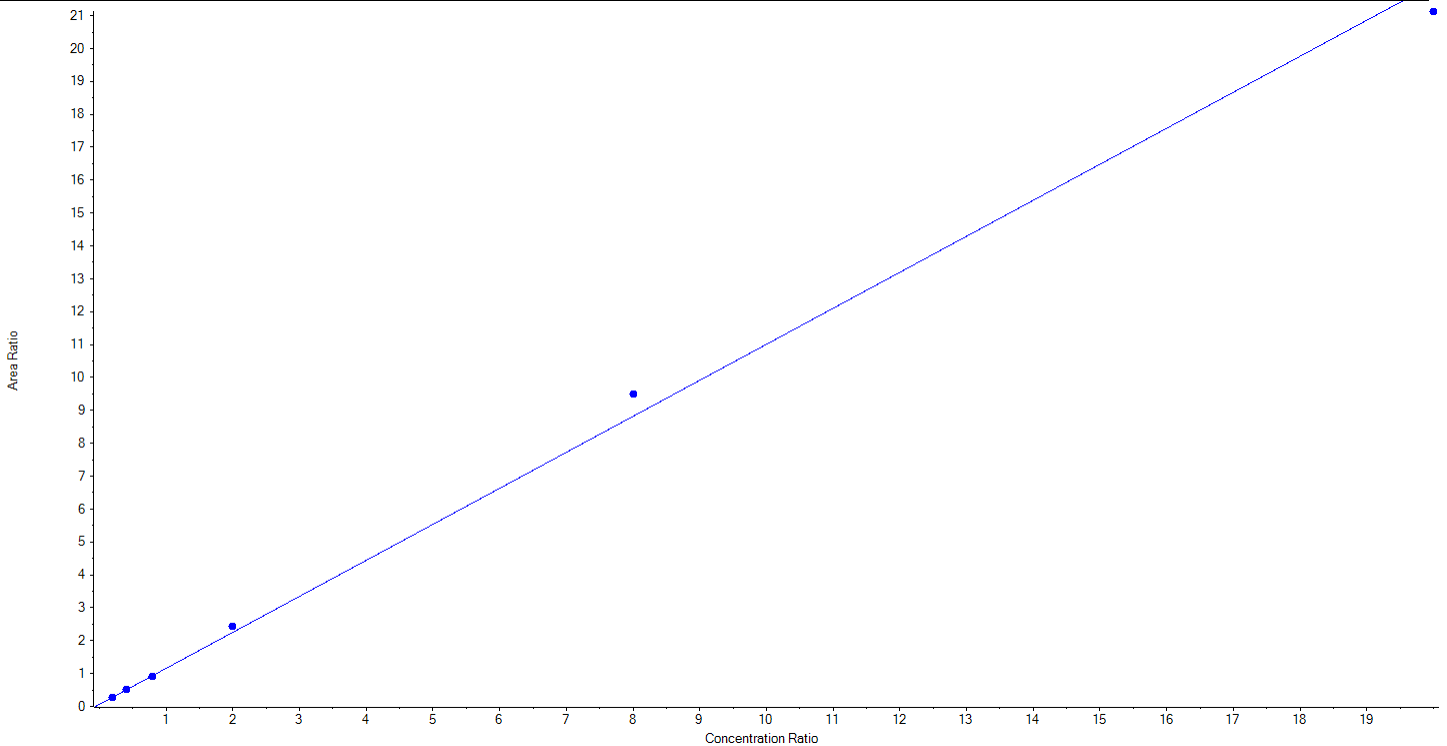
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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFUnA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 563.0 / 519.0 | Result Table | 20-1419 |
| Internal Standard | 13C7-PFUnA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.09446x + 0.06515$ ($r = 0.99825$) (weighting: $1/x$) $r^2: 0.9965$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 224.08 | 89.6 |
| 3 | LD75 | L2 | True | 500.00 | 506.99 | 101.4 |
| 4 | LD76 | L3 | True | 1000.00 | 962.73 | 96.3 |
| 5 | LD77 | L4 | True | 2500.00 | 2714.86 | 108.6 |
| 6 | LD78 | L5 | True | 10000.00 | 10789.13 | 107.9 |
| 7 | LD79 | L6 | True | 25000.00 | 24052.20 | 96.2 |





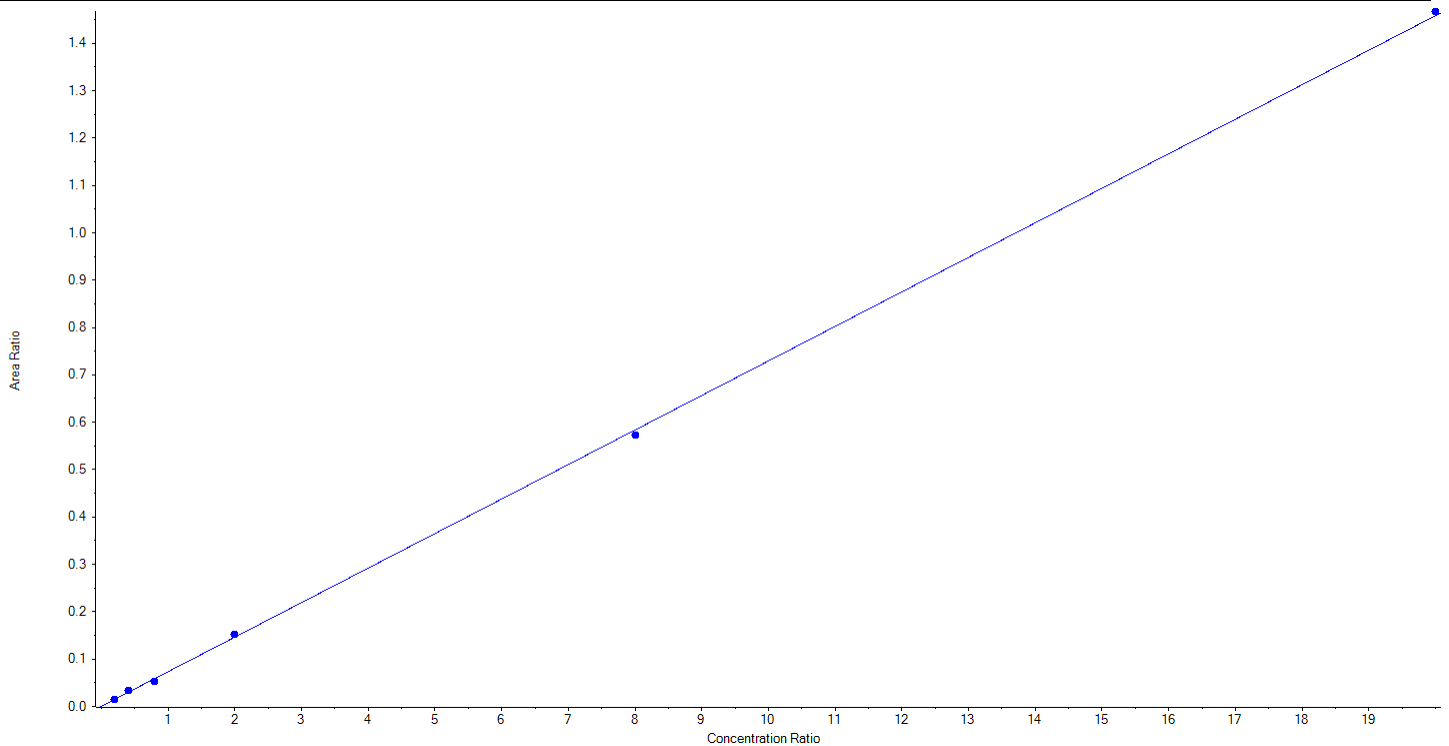
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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFUnA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 563.0 / 269.0 | Result Table | 20-1419 |
| Internal Standard | 13C7-PFUnA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.07287x + 7.29618e-4$ ($r = 0.99961$) (weighting: $1/x$) $r^2: 0.9992$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 238.19 | 95.3 |
| 3 | LD75 | L2 | True | 500.00 | 561.29 | 112.3 |
| 4 | LD76 | L3 | True | 1000.00 | 898.64 | 89.9 |
| 5 | LD77 | L4 | True | 2500.00 | 2599.58 | 104.0 |
| 6 | LD78 | L5 | True | 10000.00 | 9801.54 | 98.0 |
| 7 | LD79 | L6 | True | 25000.00 | 25150.76 | 100.6 |





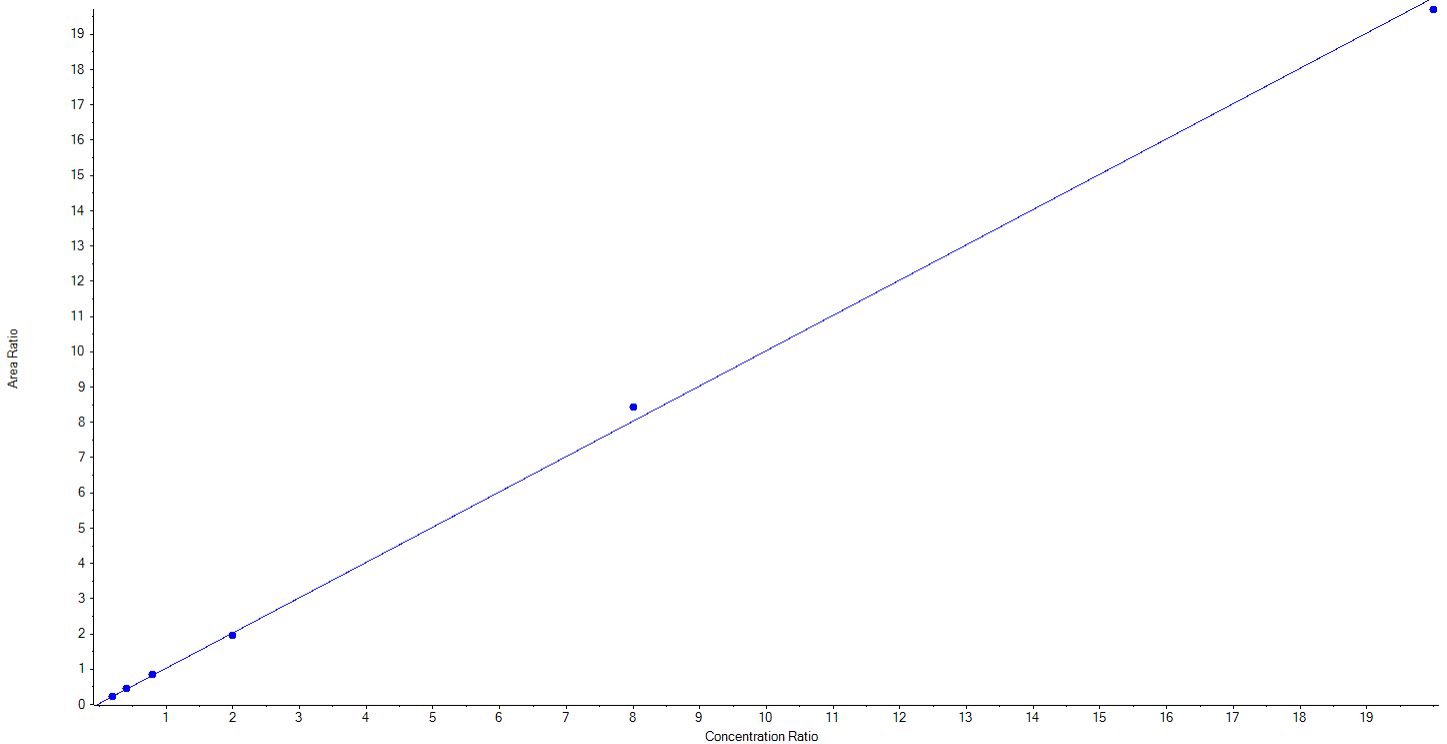
Calibration Summary Report

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Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFDoA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 613.0 / 569.0 | Result Table | 20-1419 |
| Internal Standard | 13C2-PFDoA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.00056x + 0.02845$ ($r = 0.99946$) (weighting: $1/x$) $r^2: 0.9989$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 235.30 | 94.1 |
| 3 | LD75 | L2 | True | 500.00 | 525.22 | 105.0 |
| 4 | LD76 | L3 | True | 1000.00 | 1015.93 | 101.6 |
| 5 | LD77 | L4 | True | 2500.00 | 2399.91 | 96.0 |
| 6 | LD78 | L5 | True | 10000.00 | 10491.86 | 104.9 |
| 7 | LD79 | L6 | True | 25000.00 | 24581.77 | 98.3 |





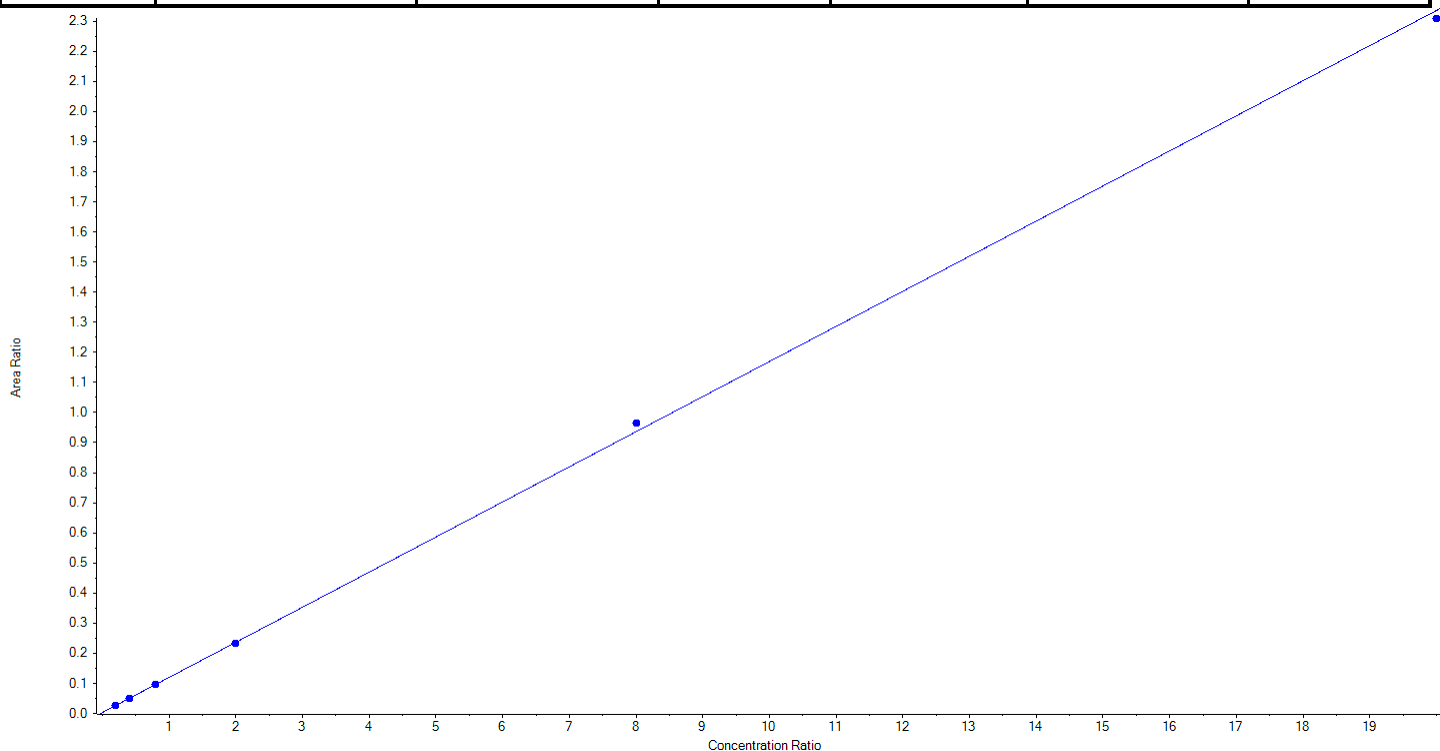
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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFDoA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 613.0 / 319.0 | Result Table | 20-1419 |
| Internal Standard | 13C2-PFDoA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.11660x + 0.00336$ ($r = 0.99978$) (weighting: $1/x$) $r^2: 0.9996$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 241.28 | 96.5 |
| 3 | LD75 | L2 | True | 500.00 | 512.50 | 102.5 |
| 4 | LD76 | L3 | True | 1000.00 | 1007.48 | 100.8 |
| 5 | LD77 | L4 | True | 2500.00 | 2454.56 | 98.2 |
| 6 | LD78 | L5 | True | 10000.00 | 10320.48 | 103.2 |
| 7 | LD79 | L6 | True | 25000.00 | 24713.70 | 98.9 |





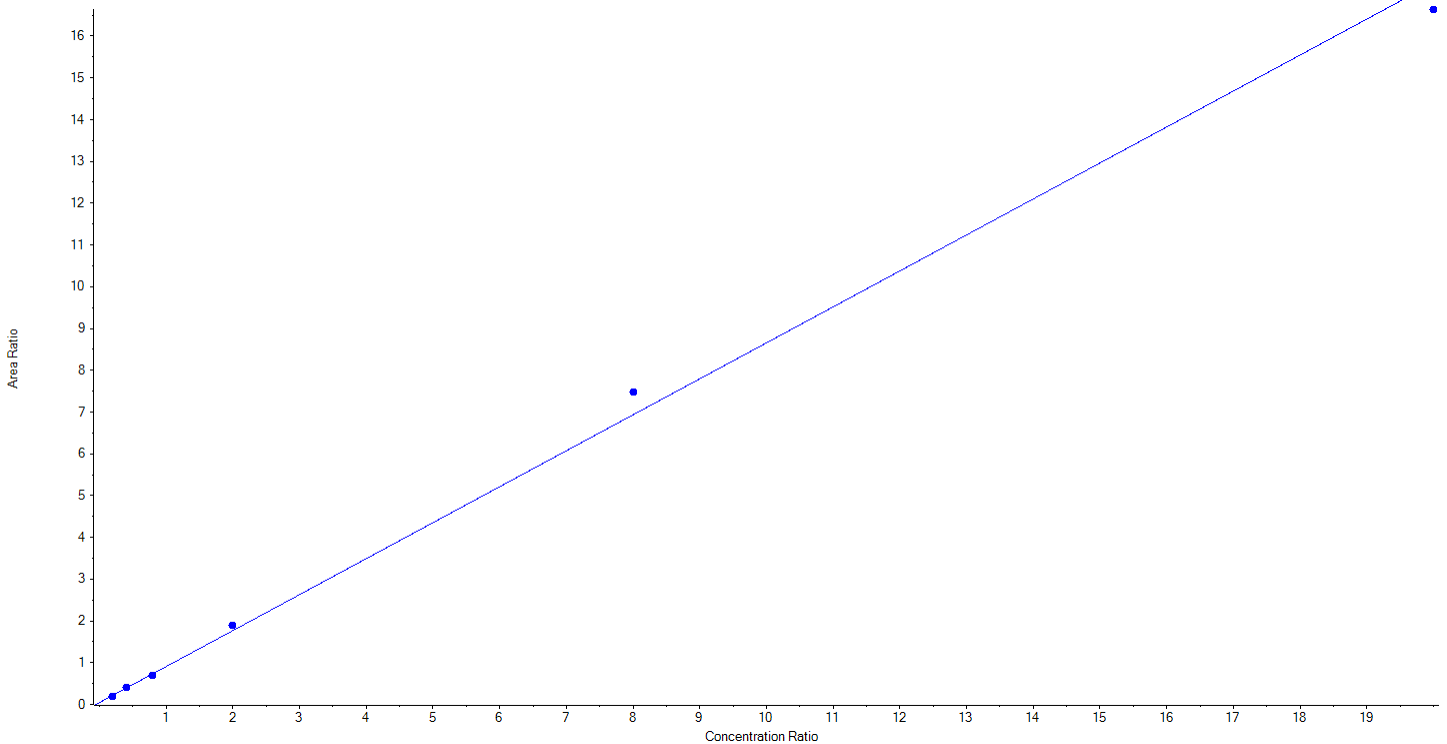
Calibration Summary Report

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFTrDA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 663.0 / 619.0 | Result Table | 20-1419 |
| Internal Standard | 13C2-PFTeDA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.86102x + 0.04644$ ($r = 0.99834$) (weighting: $1/x$) $r^2: 0.9967$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 221.44 | 88.6 |
| 3 | LD75 | L2 | True | 500.00 | 518.34 | 103.7 |
| 4 | LD76 | L3 | True | 1000.00 | 957.79 | 95.8 |
| 5 | LD77 | L4 | True | 2500.00 | 2698.21 | 107.9 |
| 6 | LD78 | L5 | True | 10000.00 | 10772.18 | 107.7 |
| 7 | LD79 | L6 | True | 25000.00 | 24082.04 | 96.3 |





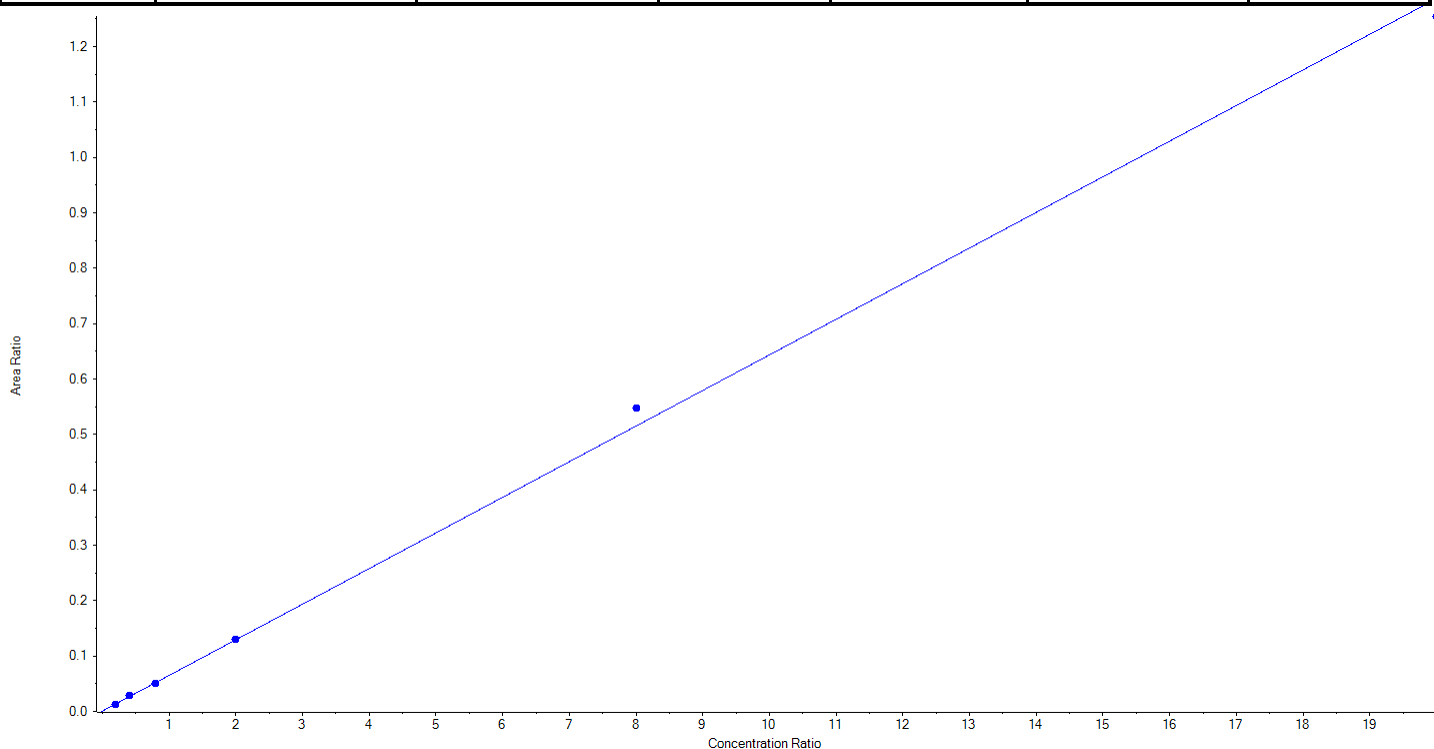
Calibration Summary Report

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFTrDA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 663.0 / 169.0 | Result Table | 20-1419 |
| Internal Standard | 13C2-PFTeDA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.06429x + 8.38046e-4$ ($r = 0.99904$) (weighting: $1/x$) $r^2: 0.9981$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 223.98 | 89.6 |
| 3 | LD75 | L2 | True | 500.00 | 551.95 | 110.4 |
| 4 | LD76 | L3 | True | 1000.00 | 959.40 | 95.9 |
| 5 | LD77 | L4 | True | 2500.00 | 2505.62 | 100.2 |
| 6 | LD78 | L5 | True | 10000.00 | 10636.48 | 106.4 |
| 7 | LD79 | L6 | True | 25000.00 | 24372.58 | 97.5 |





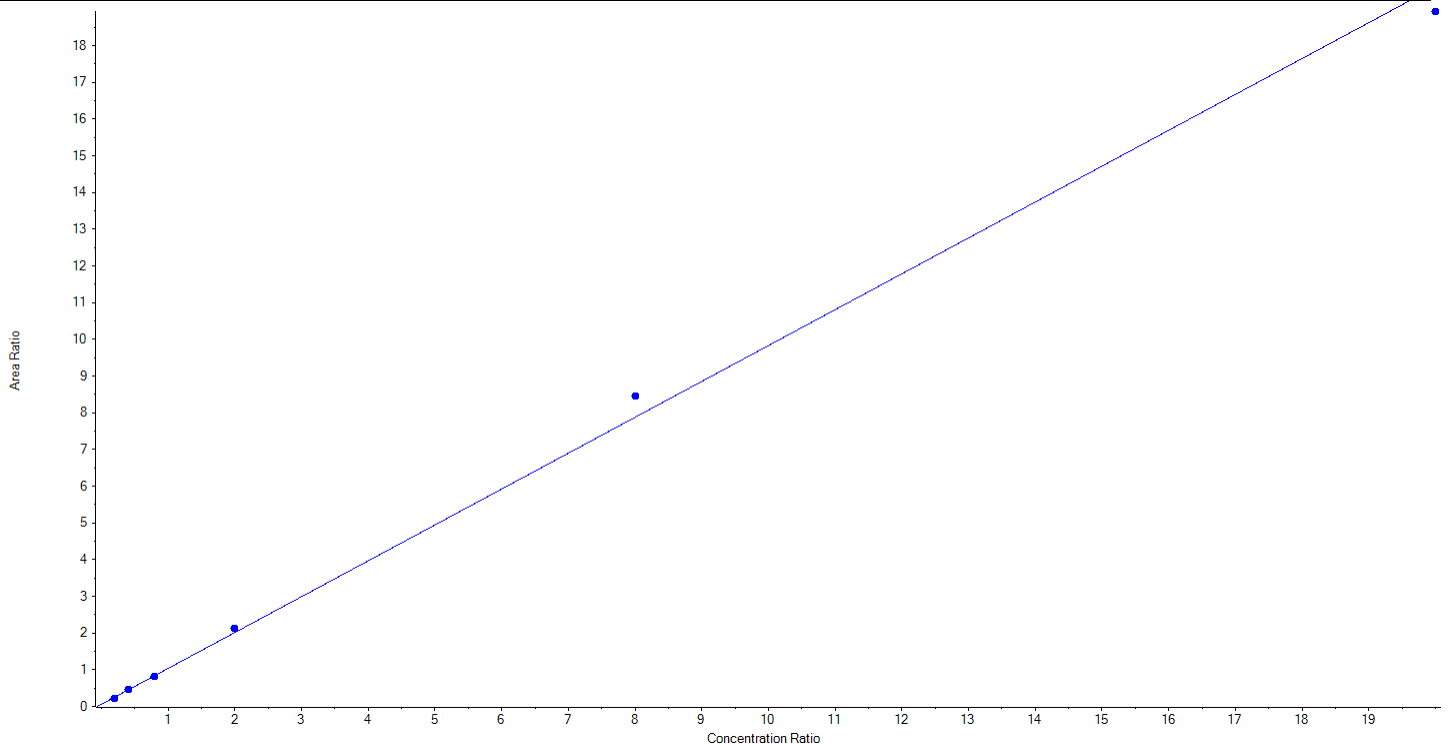
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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFTeDA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 713.0 / 669.0 | Result Table | 20-1419 |
| Internal Standard | 13C2-PFTeDA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.97723x + 0.06064$ ($r = 0.99854$) (weighting: $1/x$) $r^2: 0.9971$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 217.82 | 87.1 |
| 3 | LD75 | L2 | True | 500.00 | 529.90 | 106.0 |
| 4 | LD76 | L3 | True | 1000.00 | 974.57 | 97.5 |
| 5 | LD77 | L4 | True | 2500.00 | 2632.92 | 105.3 |
| 6 | LD78 | L5 | True | 10000.00 | 10756.37 | 107.6 |
| 7 | LD79 | L6 | True | 25000.00 | 24138.42 | 96.6 |





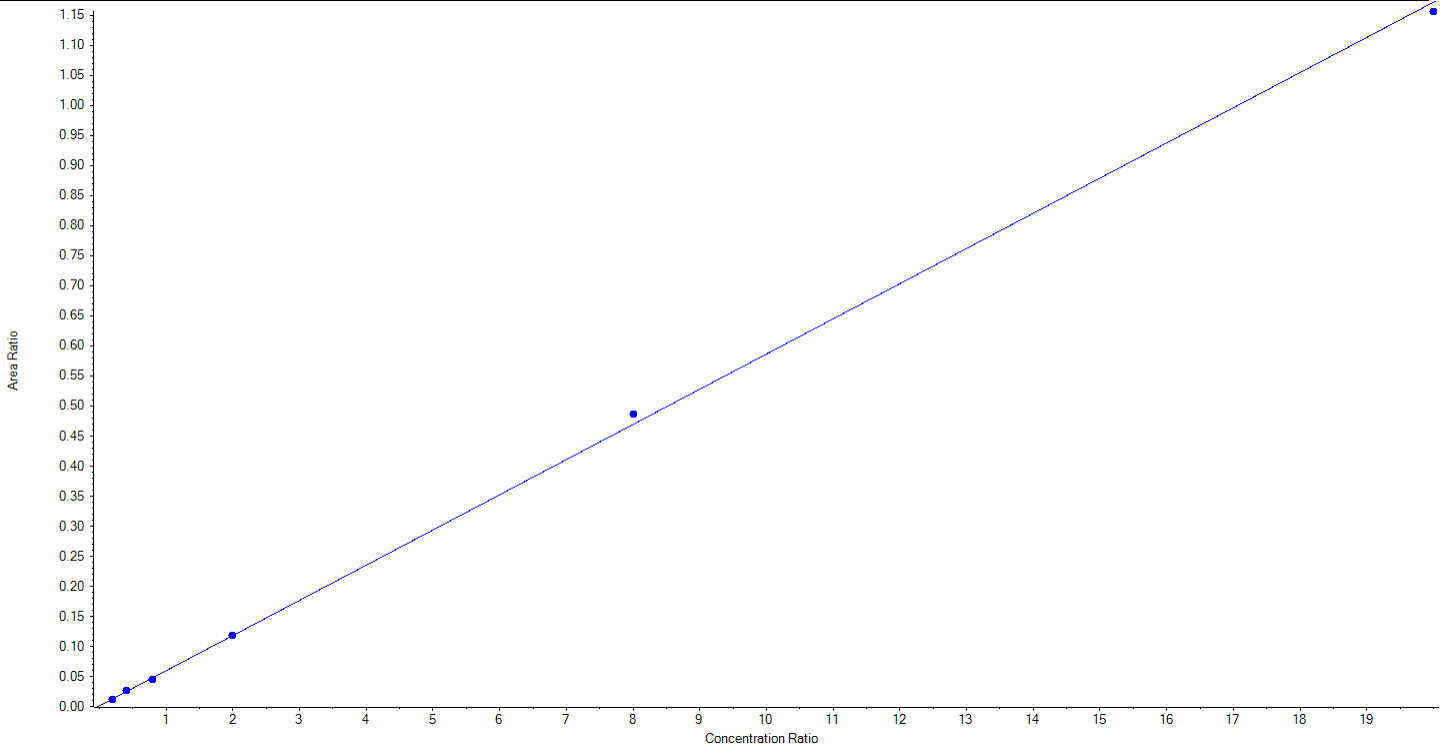
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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | PFTeDA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 713.0 / 169.0 | Result Table | 20-1419 |
| Internal Standard | 13C2-PFTeDA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.05853x + 0.00105$ ($r = 0.99960$) (weighting: $1/x$) $r^2: 0.9992$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 235.67 | 94.3 |
| 3 | LD75 | L2 | True | 500.00 | 549.74 | 110.0 |
| 4 | LD76 | L3 | True | 1000.00 | 932.26 | 93.2 |
| 5 | LD77 | L4 | True | 2500.00 | 2508.14 | 100.3 |
| 6 | LD78 | L5 | True | 10000.00 | 10355.63 | 103.6 |
| 7 | LD79 | L6 | True | 25000.00 | 24668.55 | 98.7 |





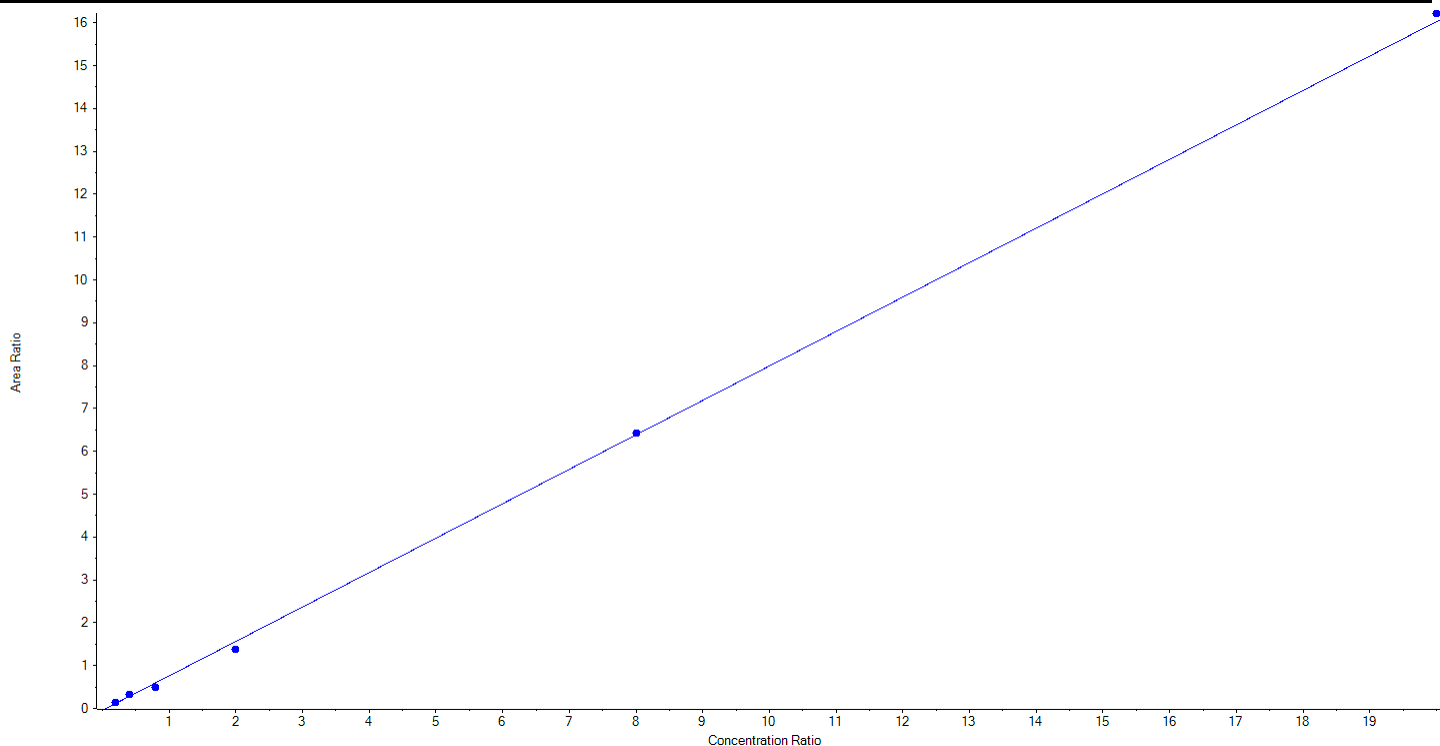
Calibration Summary Report

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Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | NMeFOSAA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 570.0 / 419.0 | Result Table | 20-1419 |
| Internal Standard | d3-MeFOSAA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.80340x + -0.04162$ ($r = 0.99885$) (weighting: $1/x$) $r^2: 0.9977$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 288.42 | 115.4 |
| 3 | LD75 | L2 | True | 500.00 | 556.83 | 111.4 |
| 4 | LD76 | L3 | True | 1000.00 | 830.19 | 83.0 |
| 5 | LD77 | L4 | True | 2500.00 | 2208.50 | 88.3 |
| 6 | LD78 | L5 | True | 10000.00 | 10073.48 | 100.7 |
| 7 | LD79 | L6 | True | 25000.00 | 25292.58 | 101.2 |





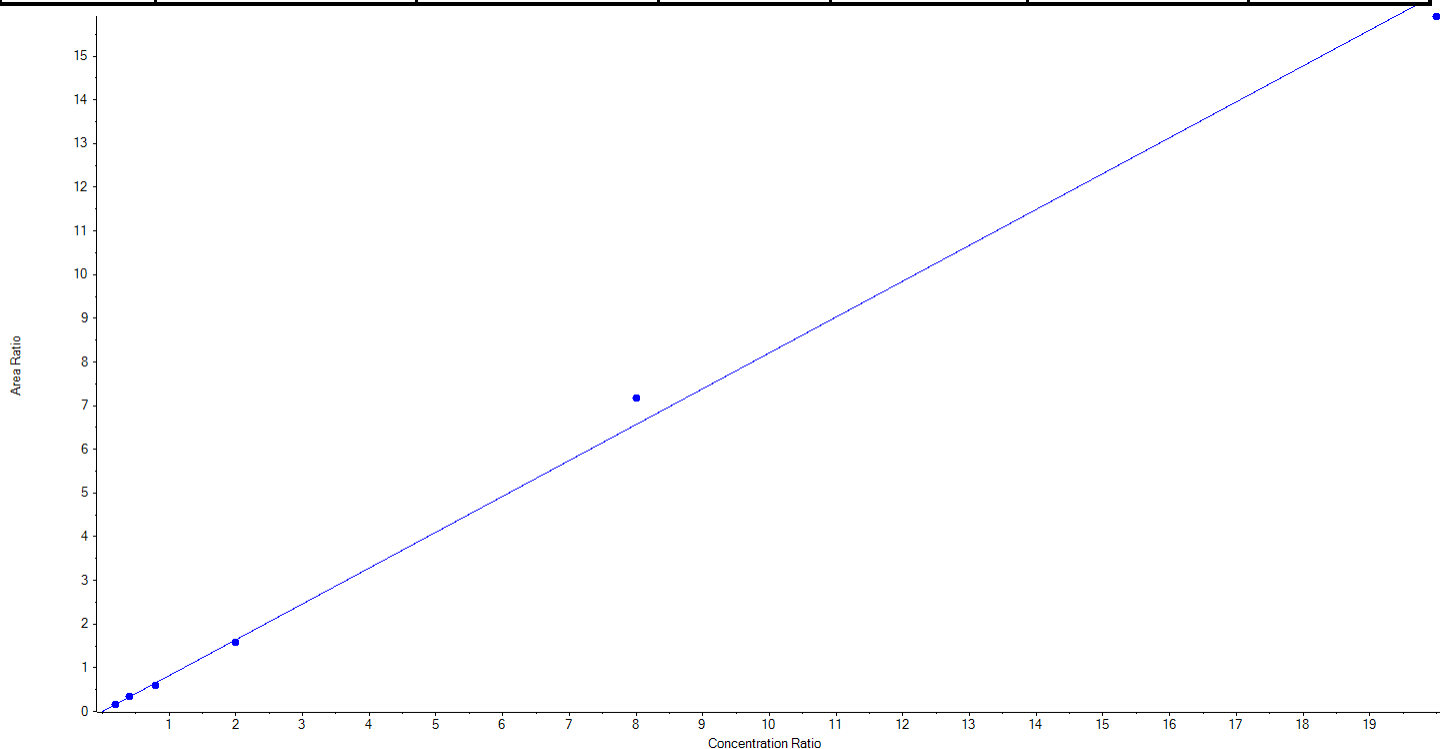
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | NMeFOSAA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 570.0 / 512.0 | Result Table | 20-1419 |
| Internal Standard | d3-MeFOSAA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.82089x + -8.88930e-5$ ($r = 0.99824$) (weighting: $1/x$) $r^2: 0.9965$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 245.61 | 98.2 |
| 3 | LD75 | L2 | True | 500.00 | 538.73 | 107.8 |
| 4 | LD76 | L3 | True | 1000.00 | 914.83 | 91.5 |
| 5 | LD77 | L4 | True | 2500.00 | 2411.80 | 96.5 |
| 6 | LD78 | L5 | True | 10000.00 | 10916.42 | 109.2 |
| 7 | LD79 | L6 | True | 25000.00 | 24222.60 | 96.9 |





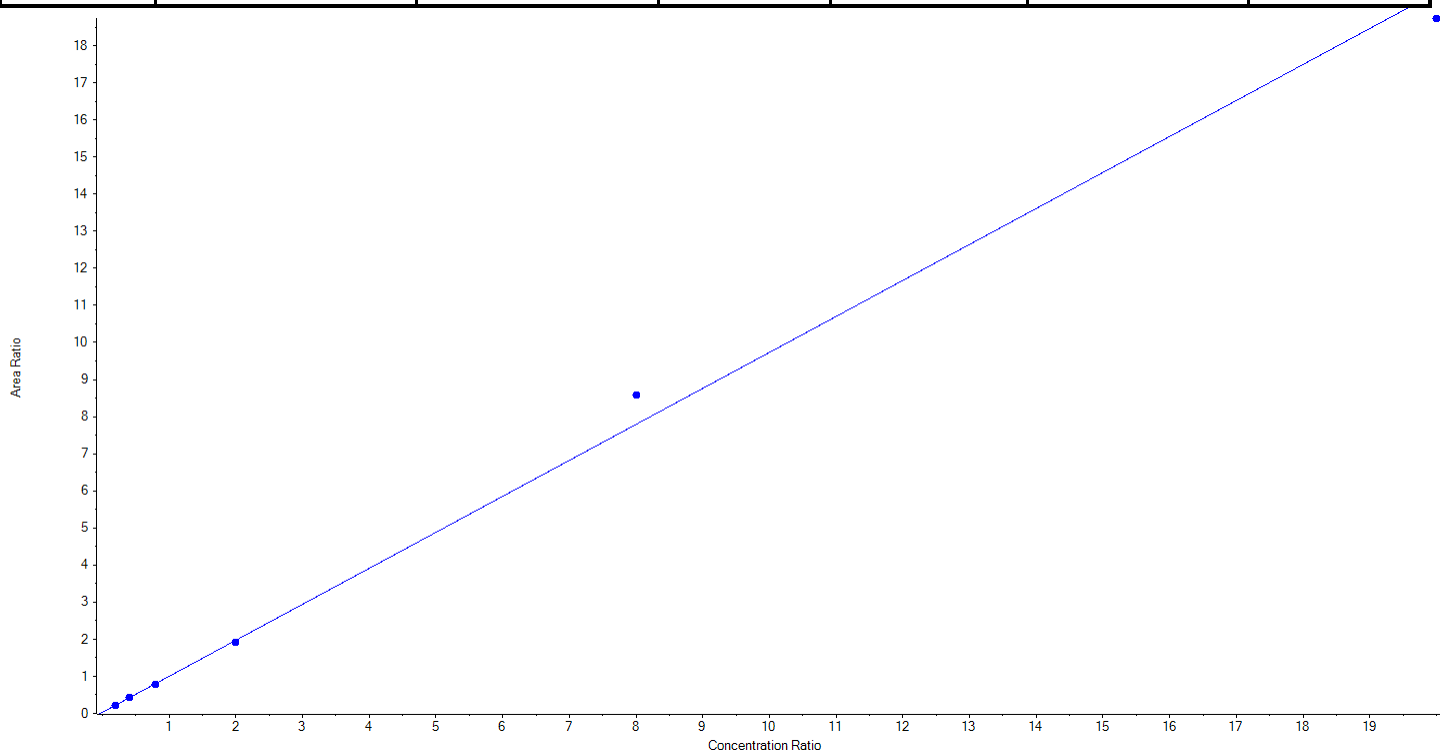
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | NEtFOSAA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 584.0 / 419.0 | Result Table | 20-1419 |
| Internal Standard | d5-EtFOSAA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.97001x + 0.03276$ ($r = 0.99802$) (weighting: $1/x$) $r^2: 0.9960$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 244.19 | 97.7 |
| 3 | LD75 | L2 | True | 500.00 | 512.72 | 102.5 |
| 4 | LD76 | L3 | True | 1000.00 | 959.11 | 95.9 |
| 5 | LD77 | L4 | True | 2500.00 | 2436.80 | 97.5 |
| 6 | LD78 | L5 | True | 10000.00 | 11001.77 | 110.0 |
| 7 | LD79 | L6 | True | 25000.00 | 24095.42 | 96.4 |





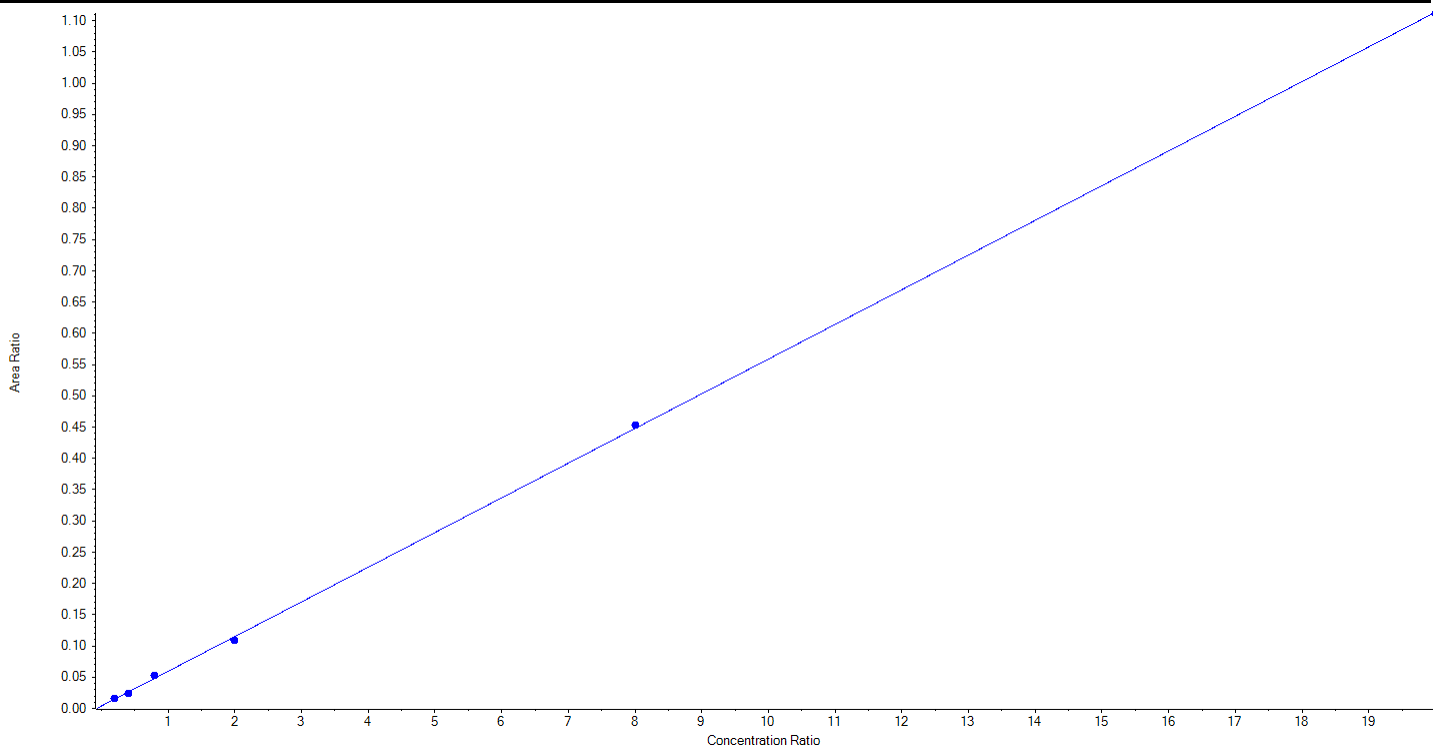
Calibration Summary Report

Created with Analyst Reporter
 Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | NEtFOSAA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 584.0 / 483.0 | Result Table | 20-1419 |
| Internal Standard | d5-EtFOSAA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.05547x + 0.00403$ ($r = 0.99964$) (weighting: $1/x$) $r^2: 0.9993$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 259.07 | 103.6 |
| 3 | LD75 | L2 | True | 500.00 | 448.84 | 89.8 |
| 4 | LD76 | L3 | True | 1000.00 | 1107.49 | 110.8 |
| 5 | LD77 | L4 | True | 2500.00 | 2373.93 | 95.0 |
| 6 | LD78 | L5 | True | 10000.00 | 10108.88 | 101.1 |
| 7 | LD79 | L6 | True | 25000.00 | 24951.78 | 99.8 |





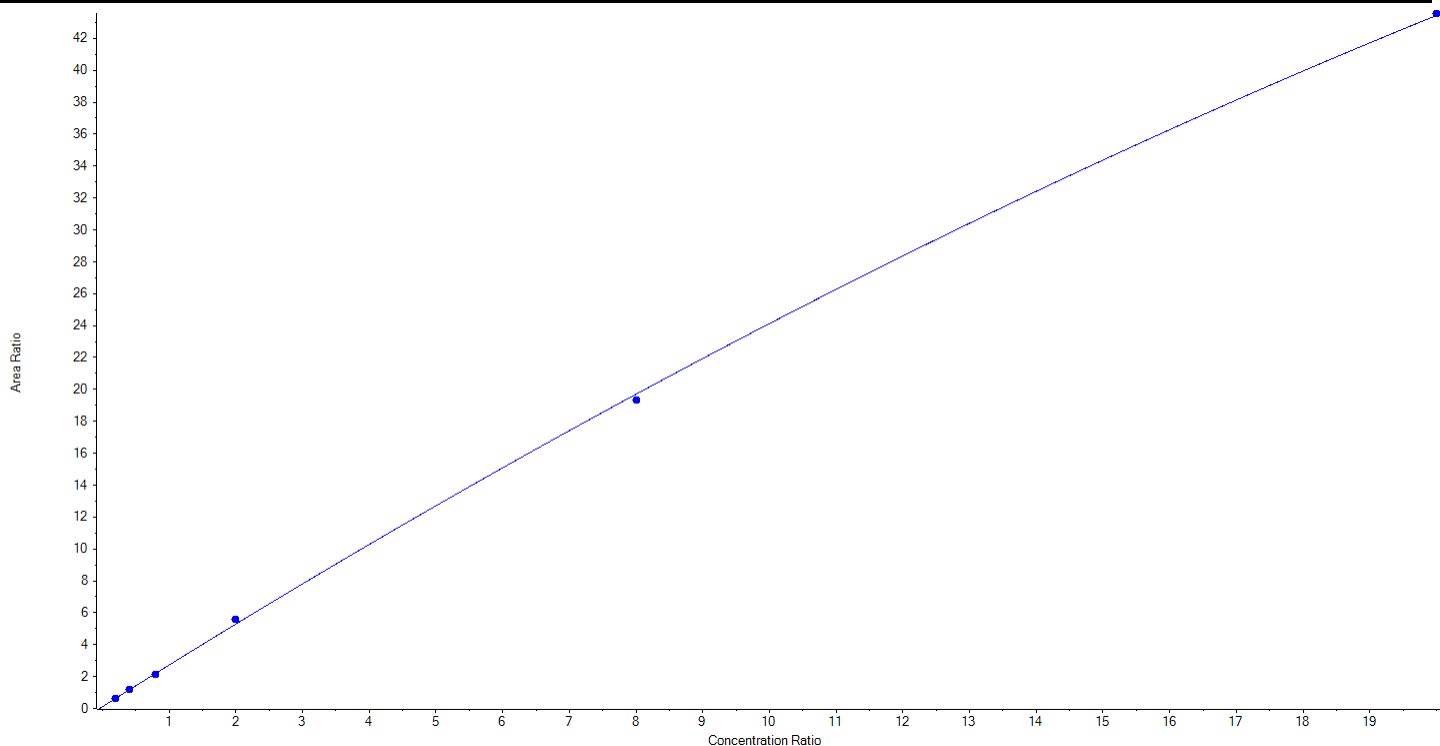
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | HFPO-DA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 285.0 / 169.0 | Result Table | 20-1419 |
| Internal Standard | 13C3-HFPO-DA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = -0.02349 x^2 + 2.63612 x + 0.11403$ ($r = 0.99975$) (weighting: $1 / x$) $r^2: 0.9995$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 238.97 | 95.6 |
| 3 | LD75 | L2 | True | 500.00 | 515.18 | 103.0 |
| 4 | LD76 | L3 | True | 1000.00 | 972.19 | 97.2 |
| 5 | LD77 | L4 | True | 2500.00 | 2646.36 | 105.9 |
| 6 | LD78 | L5 | True | 10000.00 | 9797.29 | 98.0 |
| 7 | LD79 | L6 | True | 25000.00 | 25087.80 | 100.4 |





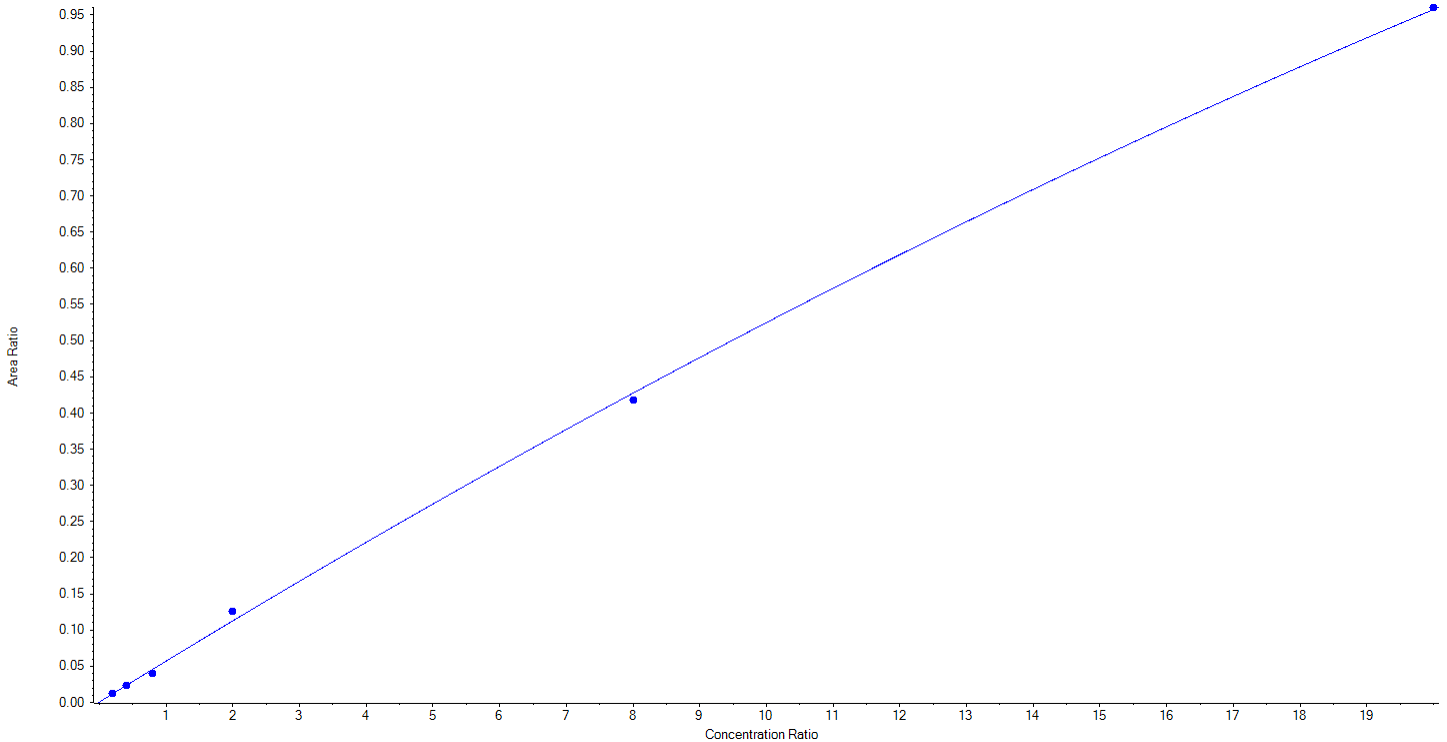
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | HFPO-DA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 285.0 / 118.8 | Result Table | 20-1419 |
| Internal Standard | 13C3-HFPO-DA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = -4.58611e-4 x^2 + 0.05701 x + 6.56525e-4$ ($r = 0.99890$) (weighting: $1 / x$)
 $r^2: 0.9978$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 266.90 | 106.8 |
| 3 | LD75 | L2 | True | 500.00 | 489.77 | 98.0 |
| 4 | LD76 | L3 | True | 1000.00 | 857.02 | 85.7 |
| 5 | LD77 | L4 | True | 2500.00 | 2791.16 | 111.7 |
| 6 | LD78 | L5 | True | 10000.00 | 9762.79 | 97.6 |
| 7 | LD79 | L6 | True | 25000.00 | 25089.09 | 100.4 |





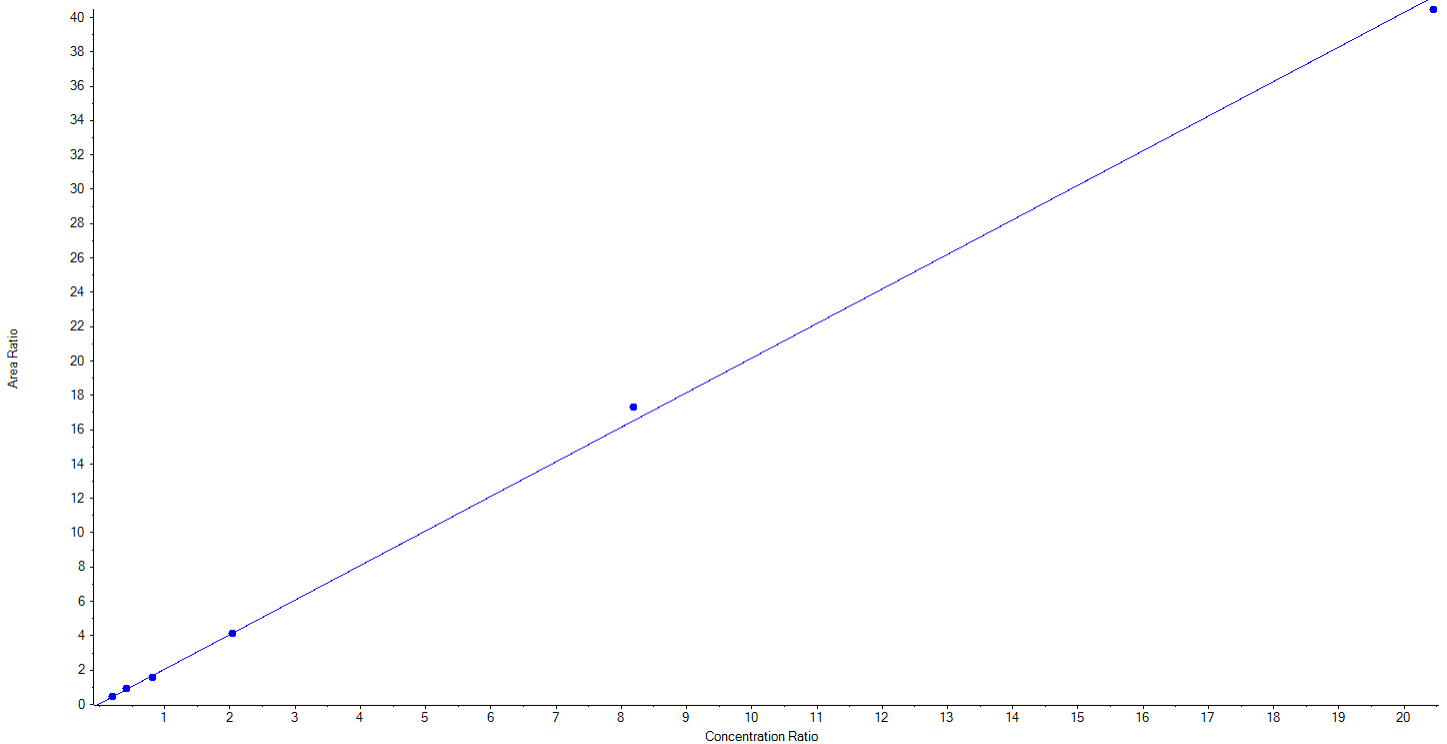
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | ADONA_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 377.0 / 251.0 | Result Table | 20-1419 |
| Internal Standard | 13C8-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 2.01265x + 0.04366$ ($r = 0.99938$) (weighting: $1/x$) $r^2: 0.9988$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 242.30 | 96.9 |
| 3 | LD75 | L2 | True | 500.00 | 539.47 | 107.9 |
| 4 | LD76 | L3 | True | 1000.00 | 922.70 | 92.3 |
| 5 | LD77 | L4 | True | 2500.00 | 2492.38 | 99.7 |
| 6 | LD78 | L5 | True | 10000.00 | 10501.12 | 105.0 |
| 7 | LD79 | L6 | True | 25000.00 | 24552.03 | 98.2 |





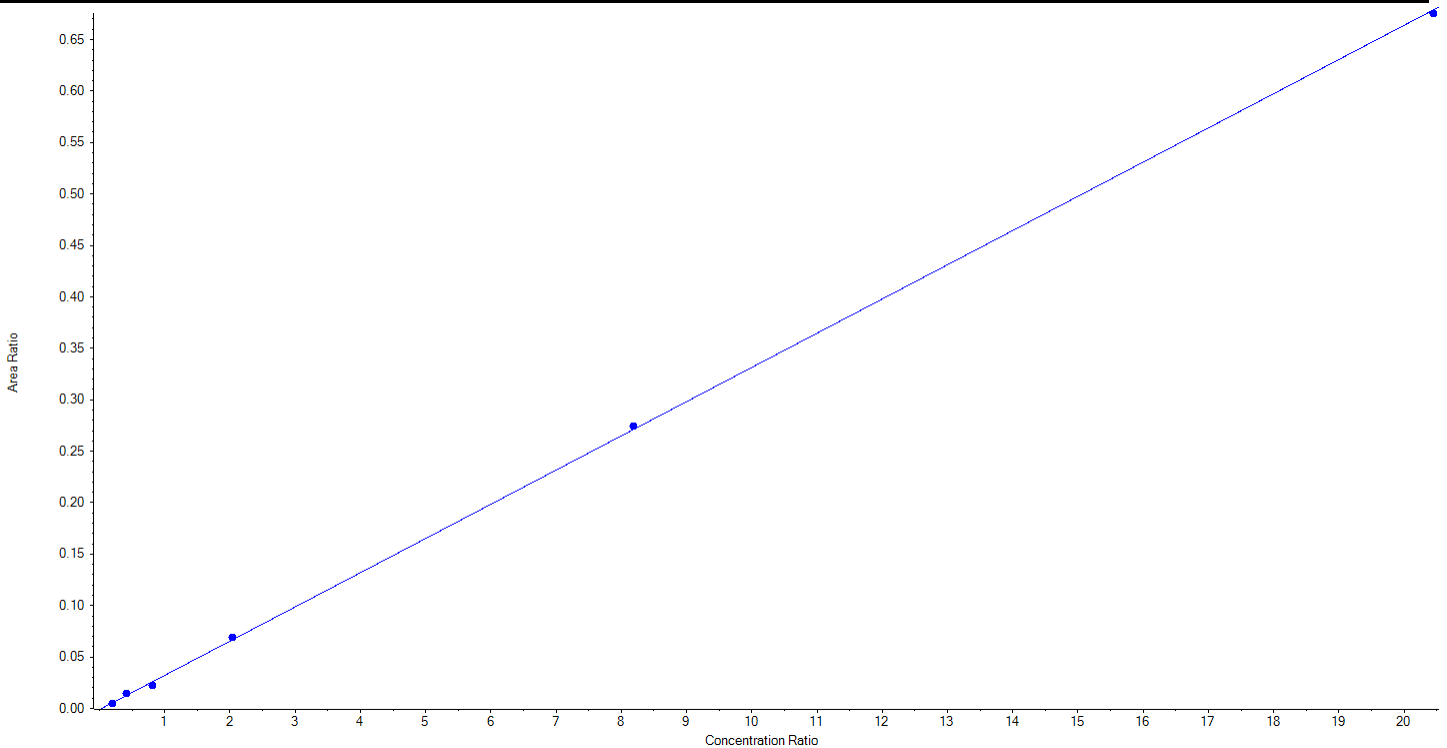
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | ADONA_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 377.0 / 85.0 | Result Table | 20-1419 |
| Internal Standard | 13C8-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.03325x + -0.00105$ ($r = 0.99940$) (weighting: $1/x$) $r^2: 0.9988$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 230.73 | 92.3 |
| 3 | LD75 | L2 | True | 500.00 | 589.48 | 117.9 |
| 4 | LD76 | L3 | True | 1000.00 | 860.48 | 86.1 |
| 5 | LD77 | L4 | True | 2500.00 | 2576.23 | 103.1 |
| 6 | LD78 | L5 | True | 10000.00 | 10123.72 | 101.2 |
| 7 | LD79 | L6 | True | 25000.00 | 24869.36 | 99.5 |





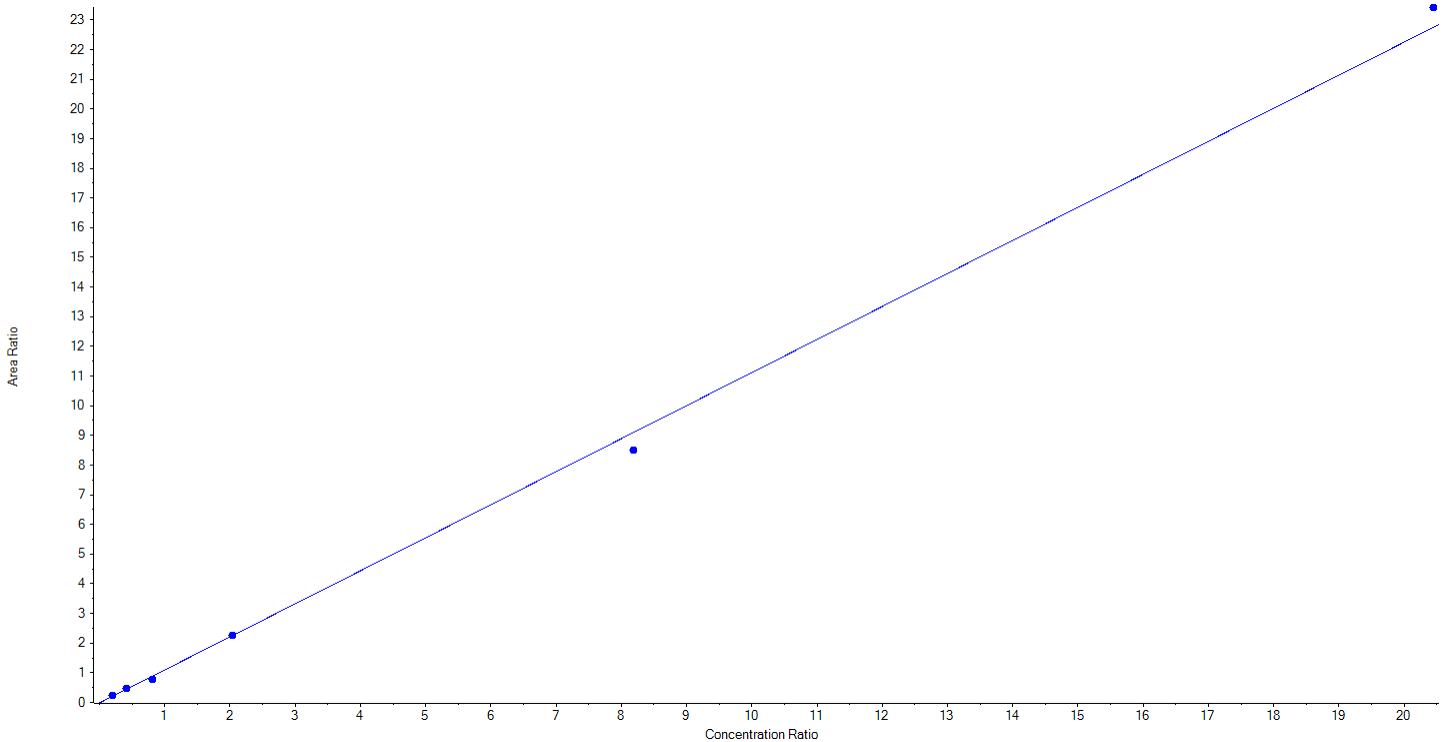
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 9CI-PF3ONS_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 531.0 / 351.0 | Result Table | 20-1419 |
| Internal Standard | 13C8-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.11331x + -0.01581$ ($r = 0.99865$) (weighting: $1/x$) $r^2: 0.9973$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 271.37 | 108.6 |
| 3 | LD75 | L2 | True | 500.00 | 546.95 | 109.4 |
| 4 | LD76 | L3 | True | 1000.00 | 854.16 | 85.4 |
| 5 | LD77 | L4 | True | 2500.00 | 2508.75 | 100.4 |
| 6 | LD78 | L5 | True | 10000.00 | 9336.87 | 93.4 |
| 7 | LD79 | L6 | True | 25000.00 | 25731.91 | 102.9 |





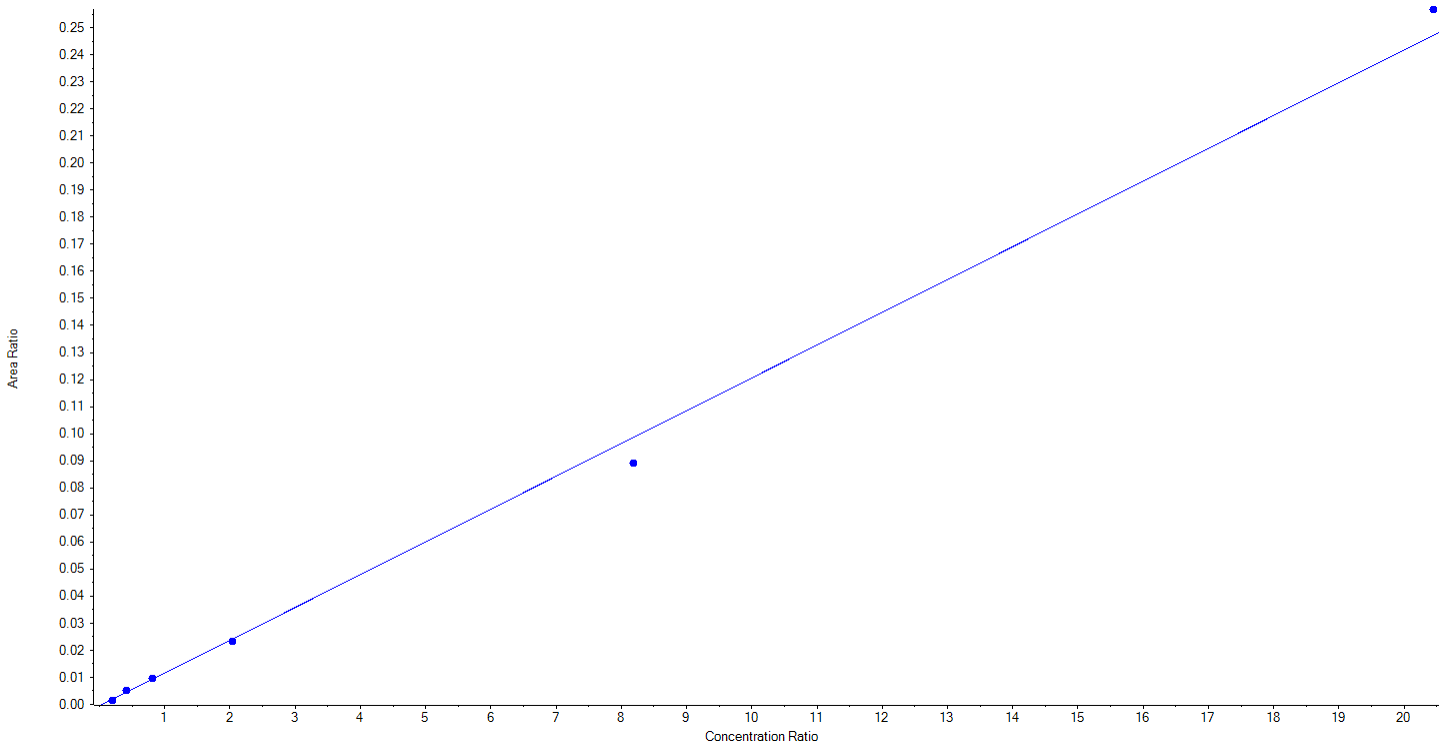
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 9CI-PF3ONS_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 531.0 / 83.0 | Result Table | 20-1419 |
| Internal Standard | 13C8-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.01211x + -5.14929e-4$ ($r = 0.99777$) (weighting: $1/x$) $r^2: 0.9955$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 218.59 | 87.4 |
| 3 | LD75 | L2 | True | 500.00 | 592.19 | 118.4 |
| 4 | LD76 | L3 | True | 1000.00 | 1039.02 | 103.9 |
| 5 | LD77 | L4 | True | 2500.00 | 2398.39 | 95.9 |
| 6 | LD78 | L5 | True | 10000.00 | 9046.78 | 90.5 |
| 7 | LD79 | L6 | True | 25000.00 | 25955.03 | 103.8 |





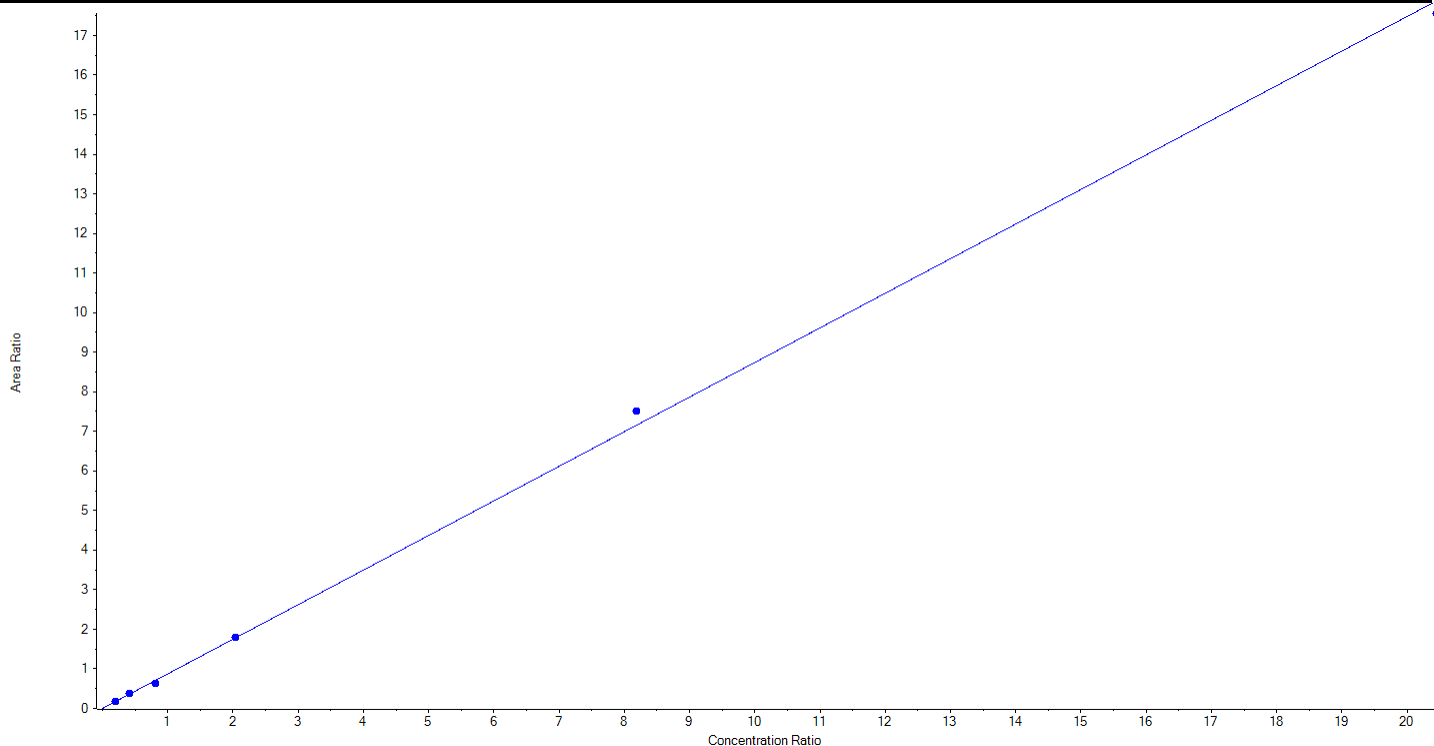
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:22:41 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 11Cl-pf3OUdS_1 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 631.0 / 451.0 | Result Table | 20-1419 |
| Internal Standard | 13C8-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.87400x + 6.90818e-5$ ($r = 0.99928$) (weighting: $1/x$) $r^2: 0.9986$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 255.78 | 102.3 |
| 3 | LD75 | L2 | True | 500.00 | 527.09 | 105.4 |
| 4 | LD76 | L3 | True | 1000.00 | 883.09 | 88.3 |
| 5 | LD77 | L4 | True | 2500.00 | 2514.74 | 100.6 |
| 6 | LD78 | L5 | True | 10000.00 | 10515.78 | 105.2 |
| 7 | LD79 | L6 | True | 25000.00 | 24553.52 | 98.2 |





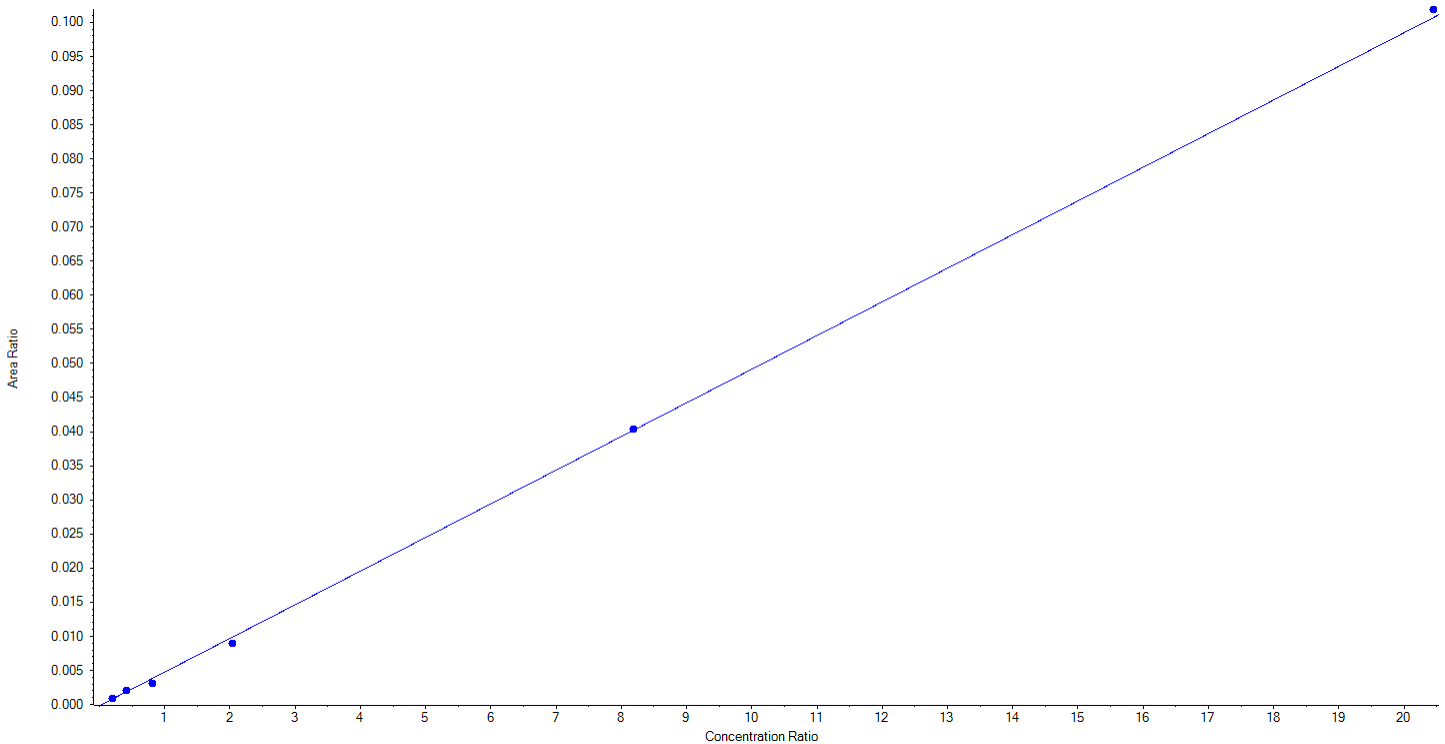
Calibration Summary Report

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 11Cl-pf3OUdS_2 | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 631.0 / 83.0 | Result Table | 20-1419 |
| Internal Standard | 13C8-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.00493x + -1.80896e-4$ ($r = 0.99892$) (weighting: $1/x$) $r^2: 0.9978$

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 250.00 | 279.82 | 111.9 |
| 3 | LD75 | L2 | True | 500.00 | 572.03 | 114.4 |
| 4 | LD76 | L3 | True | 1000.00 | 821.84 | 82.2 |
| 5 | LD77 | L4 | True | 2500.00 | 2248.83 | 90.0 |
| 6 | LD78 | L5 | True | 10000.00 | 10036.41 | 100.4 |
| 7 | LD79 | L6 | True | 25000.00 | 25291.07 | 101.2 |





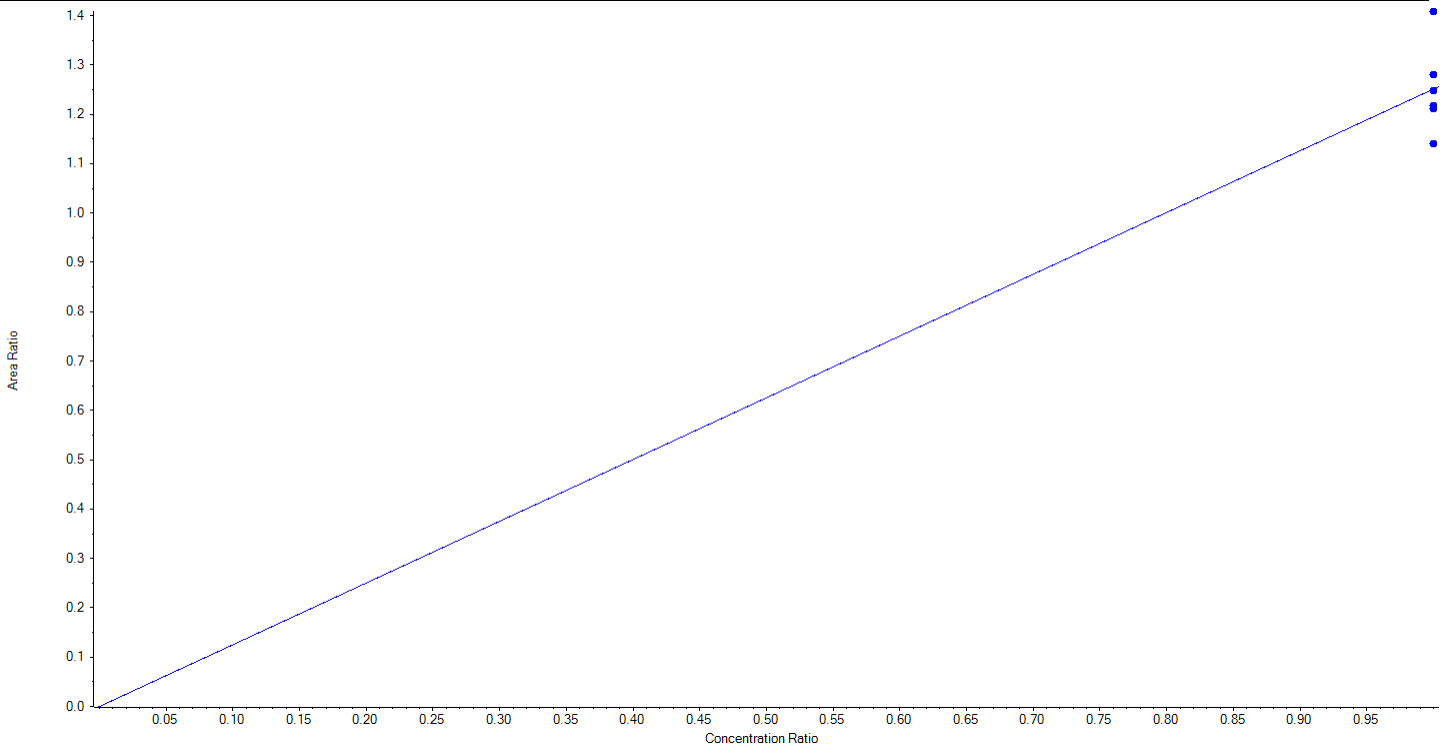
Calibration Summary Report

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Printed: 10/11/2020 6:12:34 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C2-PFDoA | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 615.0 / 570.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C2-PFDA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.25118 x$ (std. dev. = 0.08997) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1250.00 | 1247.58 | 99.8 |
| 3 | LD75 | L2 | True | 1250.00 | 1210.58 | 96.9 |
| 4 | LD76 | L3 | True | 1250.00 | 1139.03 | 91.1 |
| 5 | LD77 | L4 | True | 1250.00 | 1406.82 | 112.6 |
| 6 | LD78 | L5 | True | 1250.00 | 1216.99 | 97.4 |
| 7 | LD79 | L6 | True | 1250.00 | 1278.99 | 102.3 |





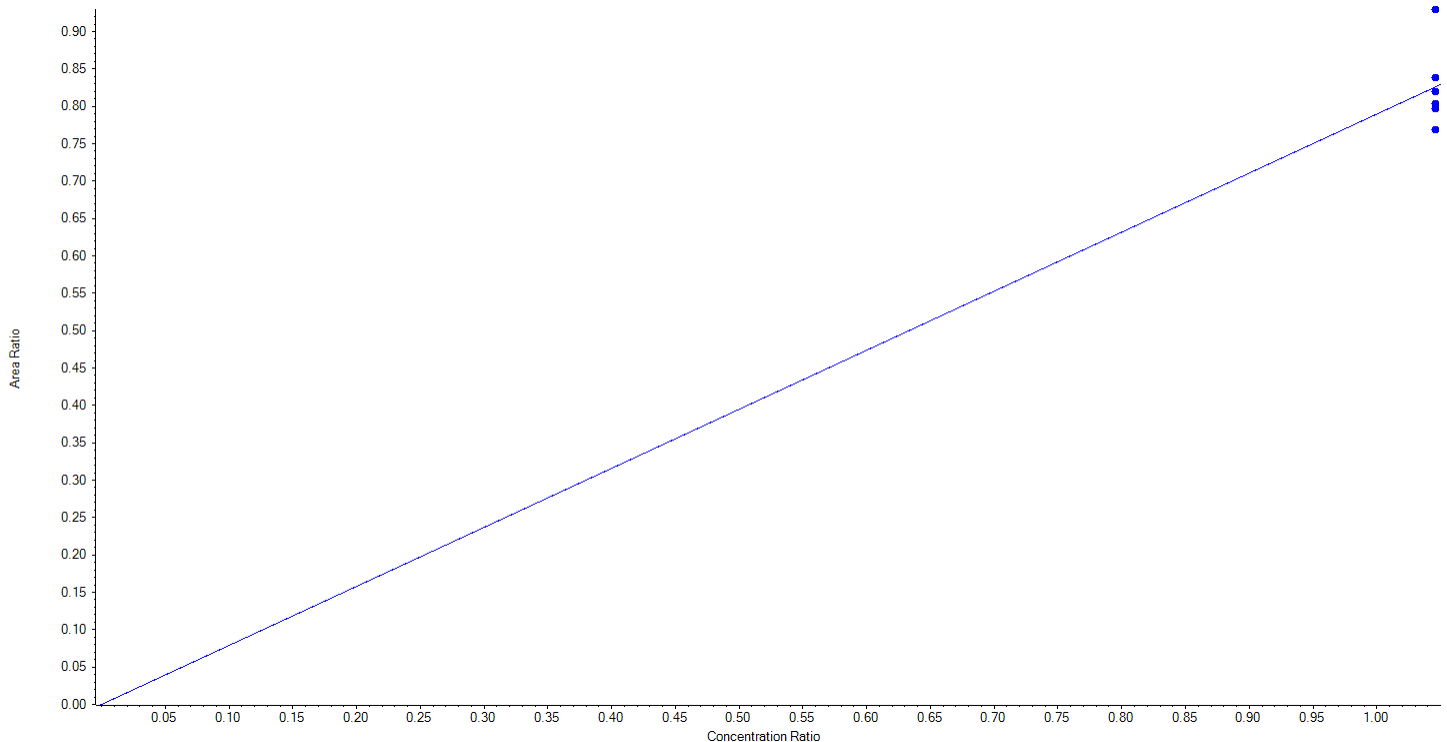
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:12:34 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | d3-MeFOSAA | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 573.0 / 419.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C4-PFOS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.78961 x$ (std. dev. = 0.05339) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1250.00 | 1406.65 | 112.5 |
| 3 | LD75 | L2 | True | 1250.00 | 1268.99 | 101.5 |
| 4 | LD76 | L3 | True | 1250.00 | 1240.11 | 99.2 |
| 5 | LD77 | L4 | True | 1250.00 | 1205.07 | 96.4 |
| 6 | LD78 | L5 | True | 1250.00 | 1216.14 | 97.3 |
| 7 | LD79 | L6 | True | 1250.00 | 1163.04 | 93.0 |





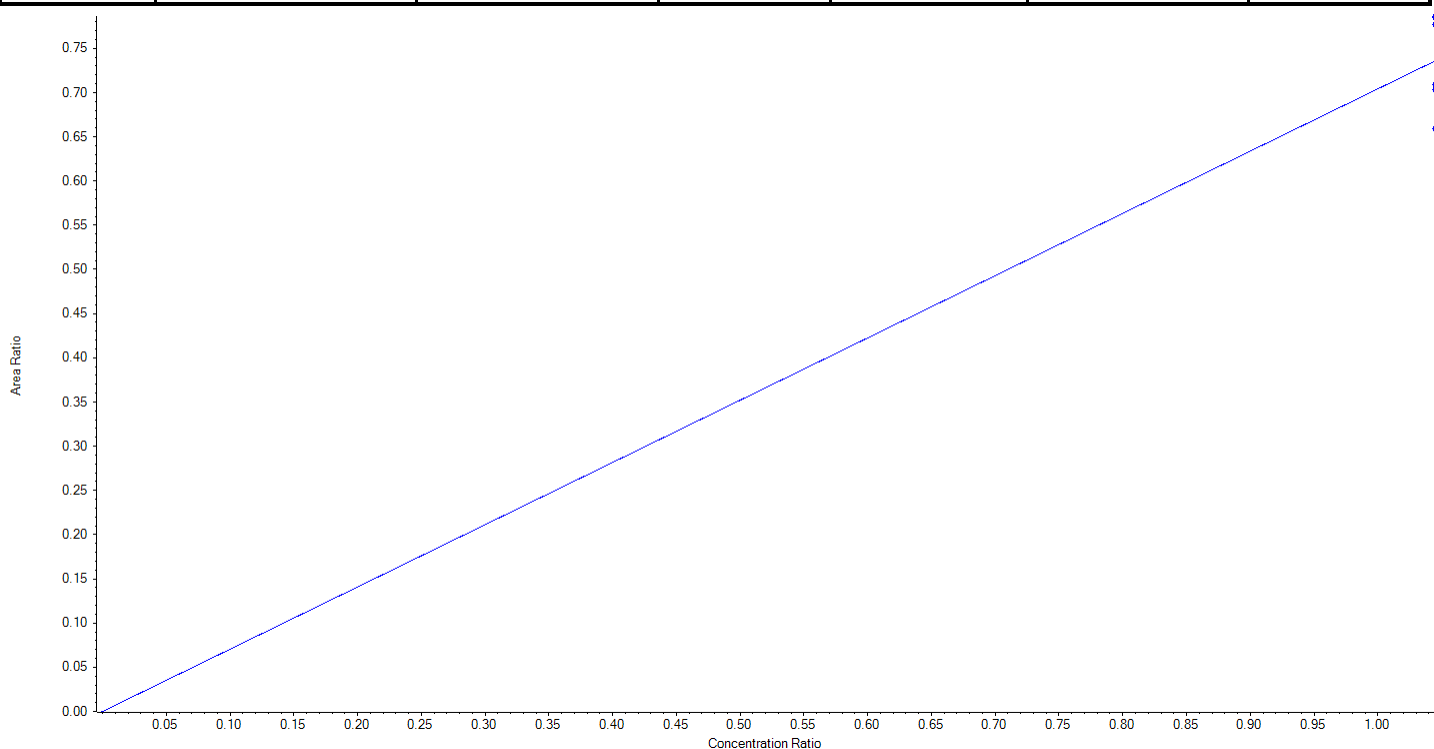
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:12:34 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | d5-EtFOSAA | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 589.0 / 419.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C4-PFOS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.70414 x$ (std. dev. = 0.05123) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1250.00 | 1333.86 | 106.7 |
| 3 | LD75 | L2 | True | 1250.00 | 1319.14 | 105.5 |
| 4 | LD76 | L3 | True | 1250.00 | 1192.70 | 95.4 |
| 5 | LD77 | L4 | True | 1250.00 | 1332.56 | 106.6 |
| 6 | LD78 | L5 | True | 1250.00 | 1203.03 | 96.2 |
| 7 | LD79 | L6 | True | 1250.00 | 1118.71 | 89.5 |





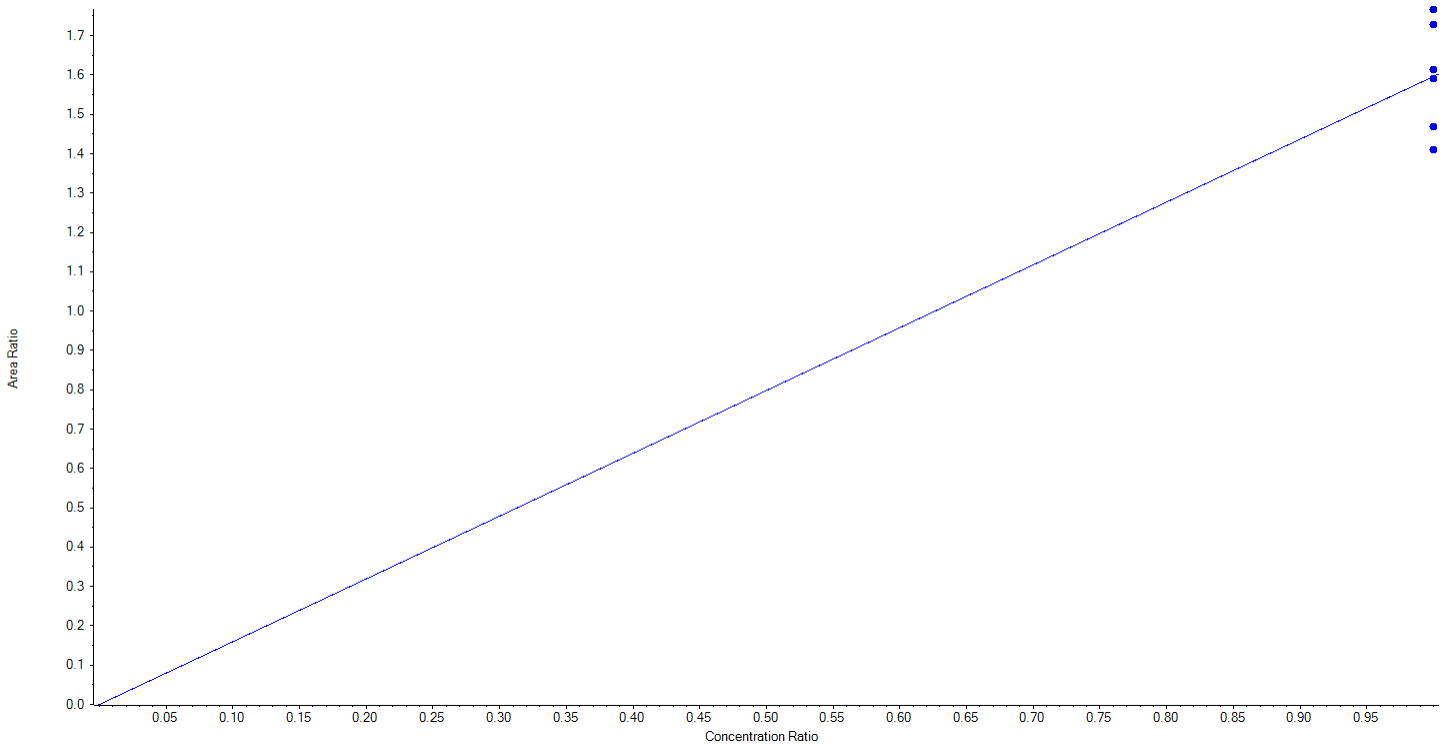
Calibration Summary Report

Created with Analyst Reporter
Printed: 10/11/2020 6:12:34 PM

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C5-PFHxA | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 318.0 / 273.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C2-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.59640 x$ (std. dev. = 0.14006) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1250.00 | 1354.18 | 108.3 |
| 3 | LD75 | L2 | True | 1250.00 | 1383.16 | 110.7 |
| 4 | LD76 | L3 | True | 1250.00 | 1263.71 | 101.1 |
| 5 | LD77 | L4 | True | 1250.00 | 1245.10 | 99.6 |
| 6 | LD78 | L5 | True | 1250.00 | 1149.80 | 92.0 |
| 7 | LD79 | L6 | True | 1250.00 | 1104.05 | 88.3 |





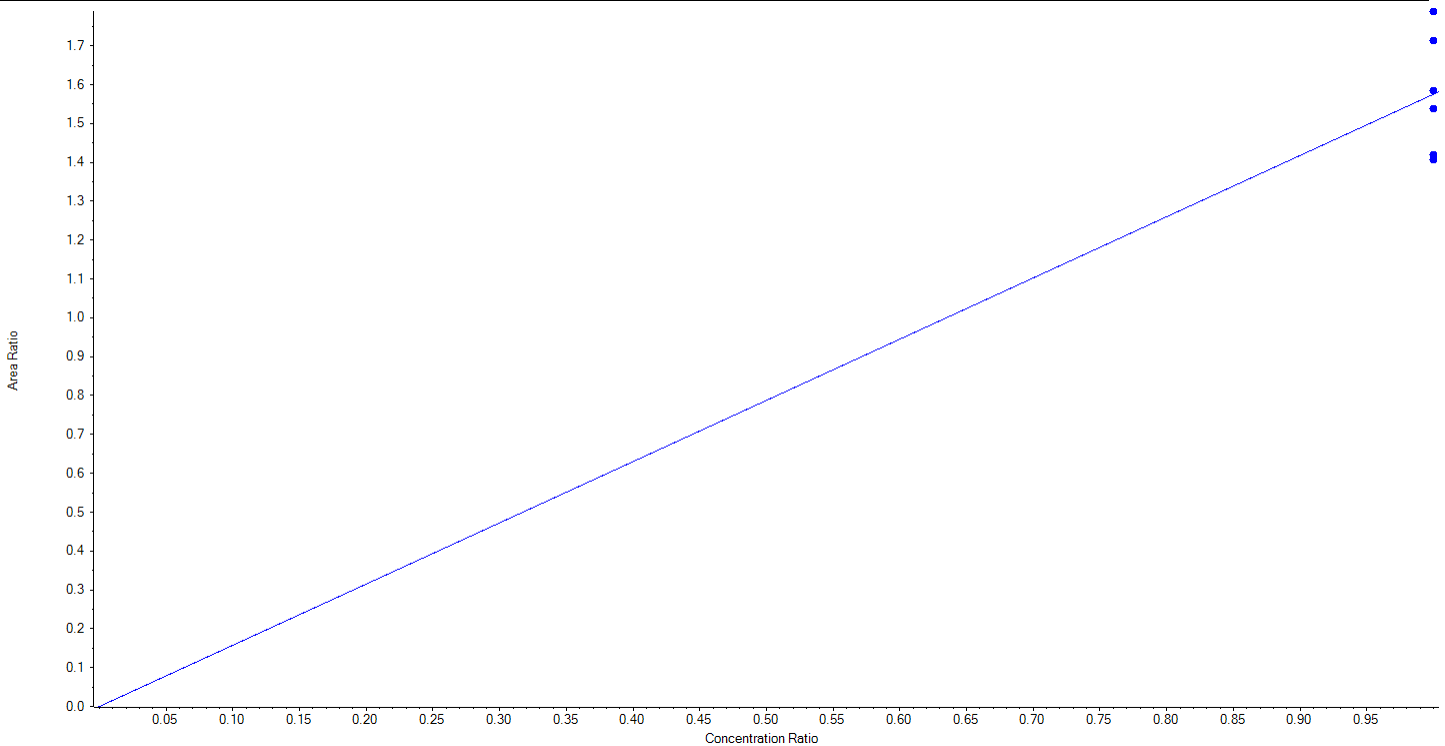
Calibration Summary Report

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C4-PFHpA | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 367.0 / 322.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C2-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.57526 x$ (std. dev. = 0.15366) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1250.00 | 1359.45 | 108.8 |
| 3 | LD75 | L2 | True | 1250.00 | 1418.88 | 113.5 |
| 4 | LD76 | L3 | True | 1250.00 | 1220.02 | 97.6 |
| 5 | LD77 | L4 | True | 1250.00 | 1257.89 | 100.6 |
| 6 | LD78 | L5 | True | 1250.00 | 1116.89 | 89.4 |
| 7 | LD79 | L6 | True | 1250.00 | 1126.87 | 90.2 |





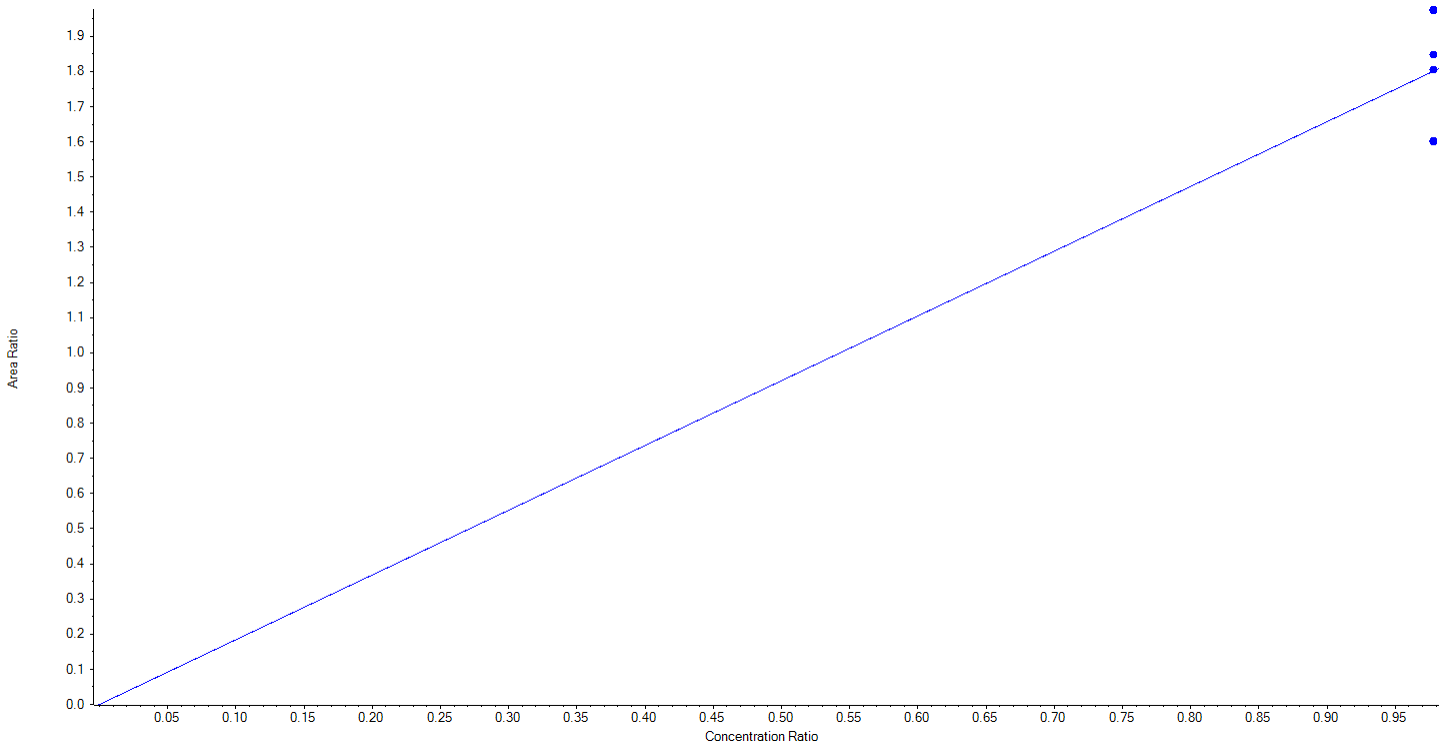
Calibration Summary Report

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C8-PFOA | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 421.0 / 376.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C2-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.84145x$ (std. dev. = 0.17150) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1222.50 | 1341.46 | 109.7 |
| 3 | LD75 | L2 | True | 1222.50 | 1338.69 | 109.5 |
| 4 | LD76 | L3 | True | 1222.50 | 1253.70 | 102.6 |
| 5 | LD77 | L4 | True | 1222.50 | 1225.17 | 100.2 |
| 6 | LD78 | L5 | True | 1222.50 | 1089.07 | 89.1 |
| 7 | LD79 | L6 | True | 1222.50 | 1086.92 | 88.9 |





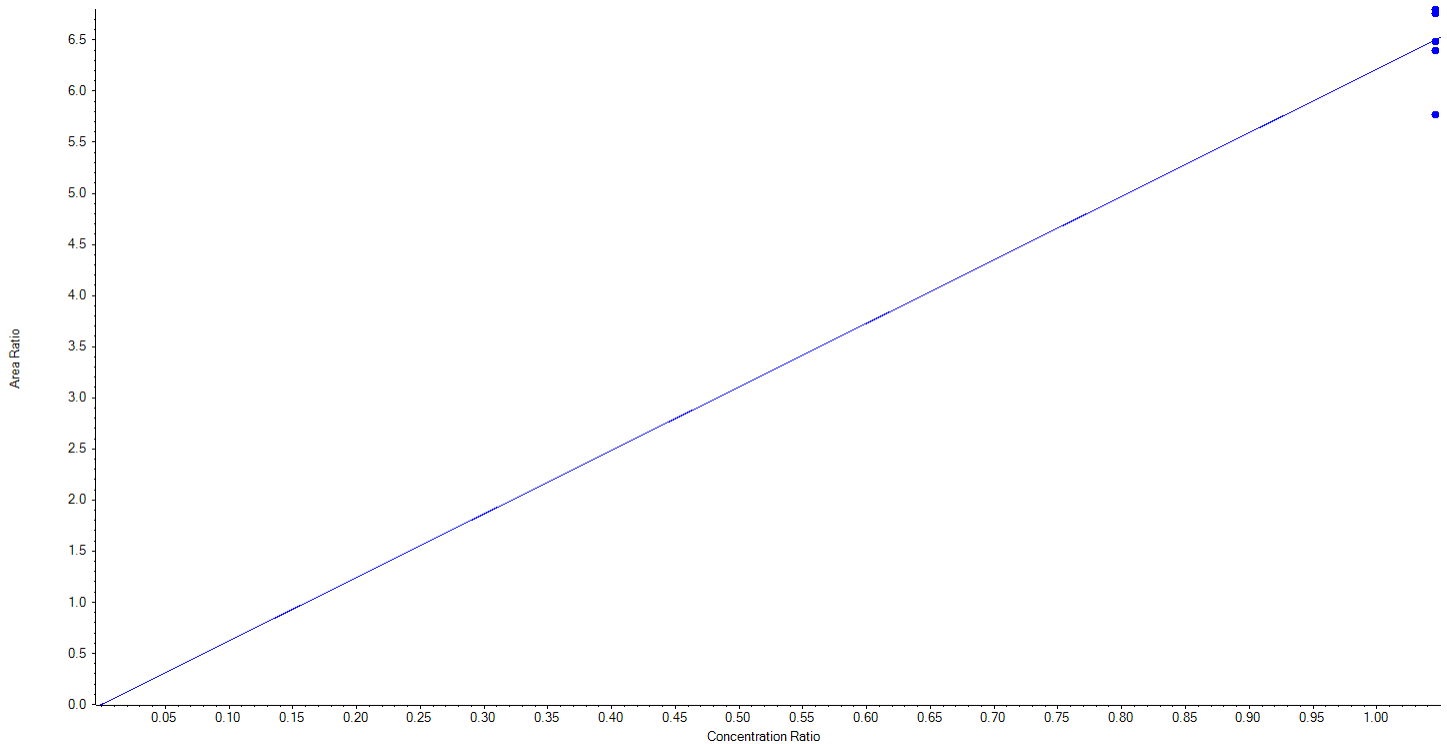
Calibration Summary Report

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C9-PFNA | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 472.0 / 427.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C4-PFOS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 6.21387 x$ (std. dev. = 0.38045) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1250.00 | 1306.47 | 104.5 |
| 3 | LD75 | L2 | True | 1250.00 | 1307.23 | 104.6 |
| 4 | LD76 | L3 | True | 1250.00 | 1230.78 | 98.5 |
| 5 | LD77 | L4 | True | 1250.00 | 1299.80 | 104.0 |
| 6 | LD78 | L5 | True | 1250.00 | 1247.02 | 99.8 |
| 7 | LD79 | L6 | True | 1250.00 | 1108.70 | 88.7 |





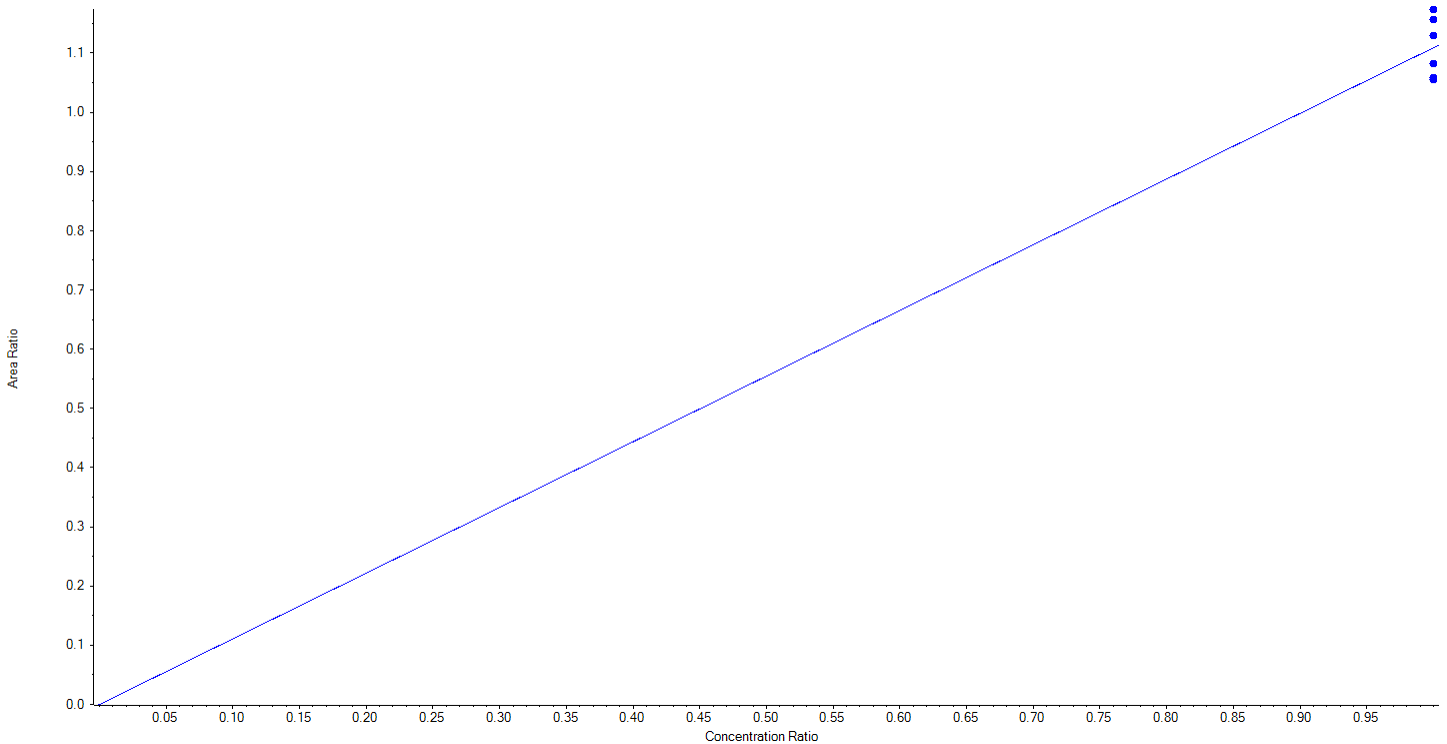
Calibration Summary Report

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C6-PFDA | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 519.0 / 474.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C2-PFDA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.10911 x$ (std. dev. = 0.05121) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1250.00 | 1303.63 | 104.3 |
| 3 | LD75 | L2 | True | 1250.00 | 1219.05 | 97.5 |
| 4 | LD76 | L3 | True | 1250.00 | 1188.52 | 95.1 |
| 5 | LD77 | L4 | True | 1250.00 | 1322.63 | 105.8 |
| 6 | LD78 | L5 | True | 1250.00 | 1193.11 | 95.5 |
| 7 | LD79 | L6 | True | 1250.00 | 1273.07 | 101.9 |





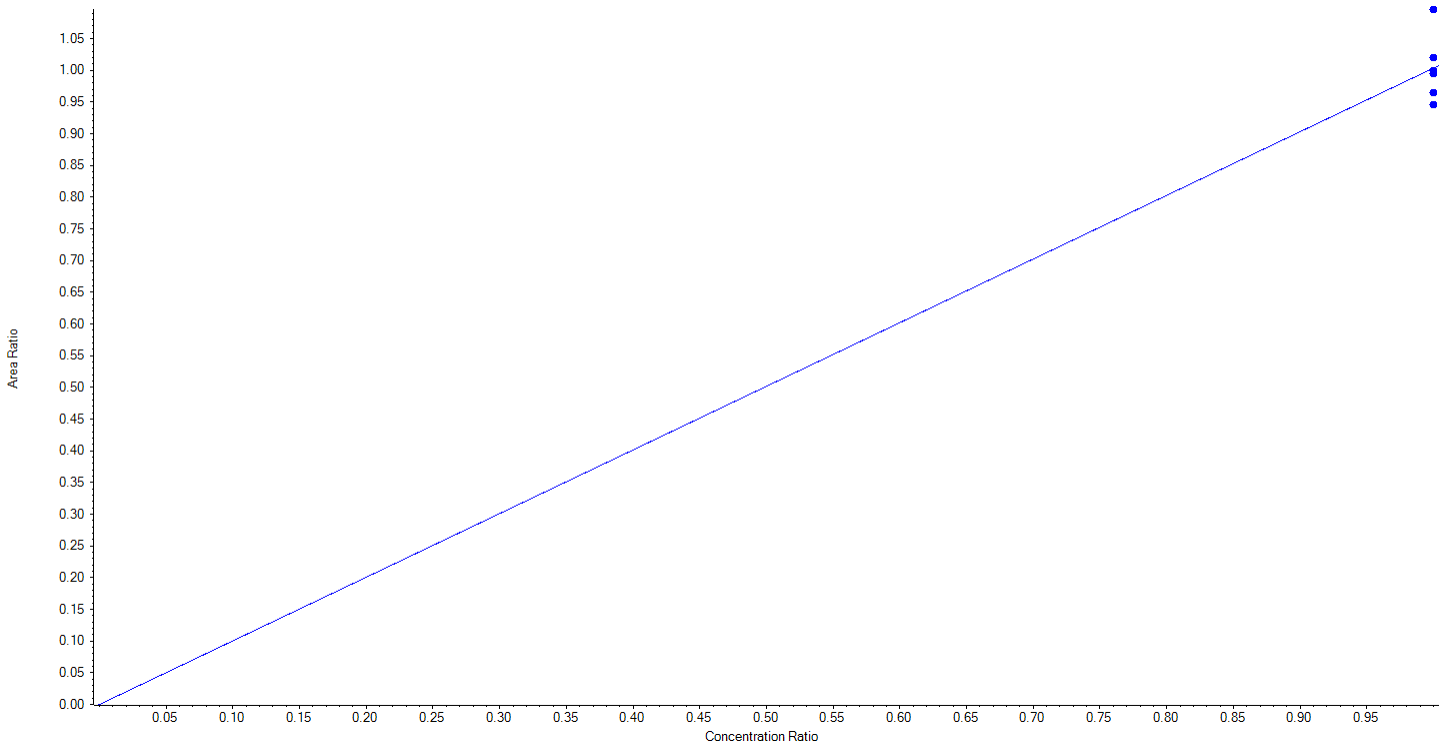
Calibration Summary Report

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C7-PFUnA | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 570.0 / 525.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C2-PFDA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.00349x$ (std. dev. = 0.05232) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1250.00 | 1271.11 | 101.7 |
| 3 | LD75 | L2 | True | 1250.00 | 1239.37 | 99.2 |
| 4 | LD76 | L3 | True | 1250.00 | 1244.25 | 99.5 |
| 5 | LD77 | L4 | True | 1250.00 | 1365.01 | 109.2 |
| 6 | LD78 | L5 | True | 1250.00 | 1178.90 | 94.3 |
| 7 | LD79 | L6 | True | 1250.00 | 1201.36 | 96.1 |





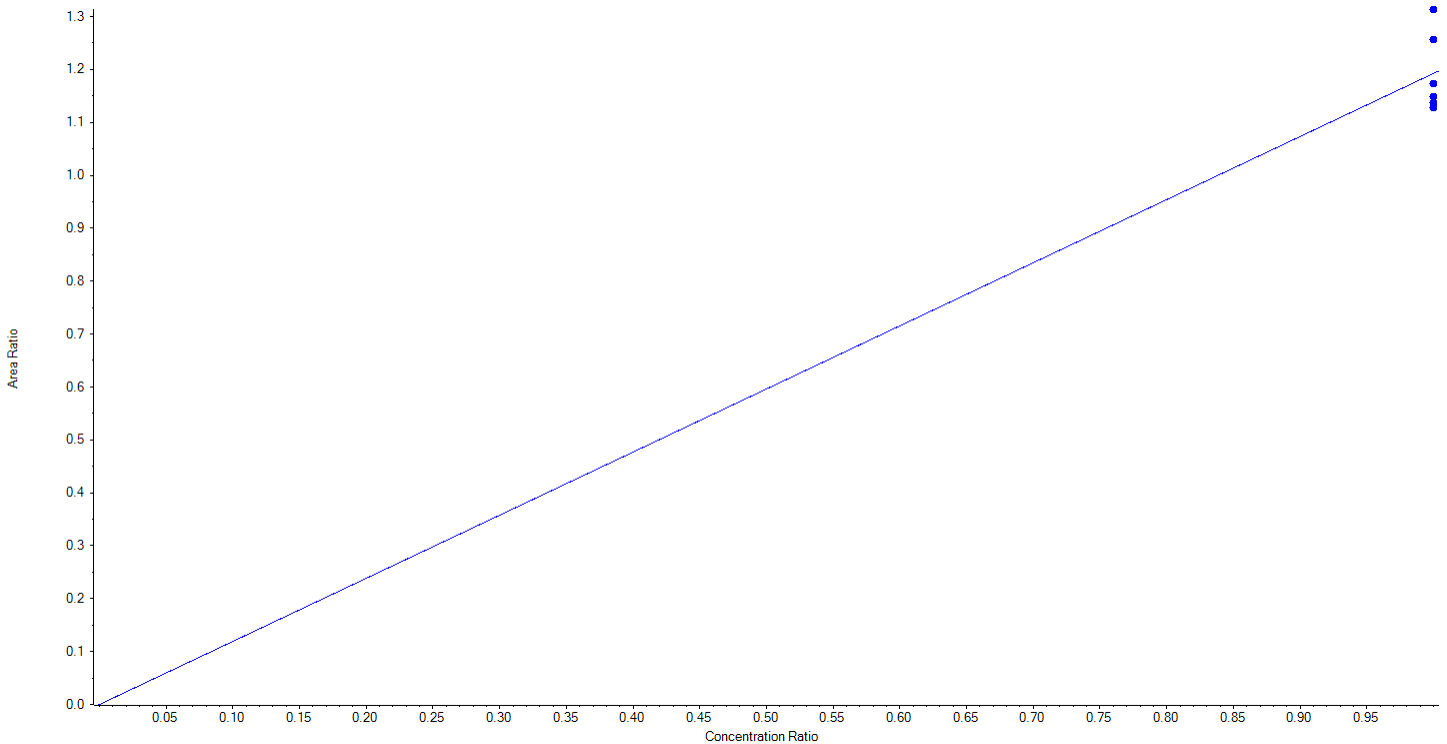
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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C2-PFTeDA | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 715.0 / 670.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C2-PFDA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.19251 x$ (std. dev. = 0.07526) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1250.00 | 1229.35 | 98.4 |
| 3 | LD75 | L2 | True | 1250.00 | 1204.09 | 96.3 |
| 4 | LD76 | L3 | True | 1250.00 | 1191.90 | 95.4 |
| 5 | LD77 | L4 | True | 1250.00 | 1376.56 | 110.1 |
| 6 | LD78 | L5 | True | 1250.00 | 1181.26 | 94.5 |
| 7 | LD79 | L6 | True | 1250.00 | 1316.84 | 105.4 |





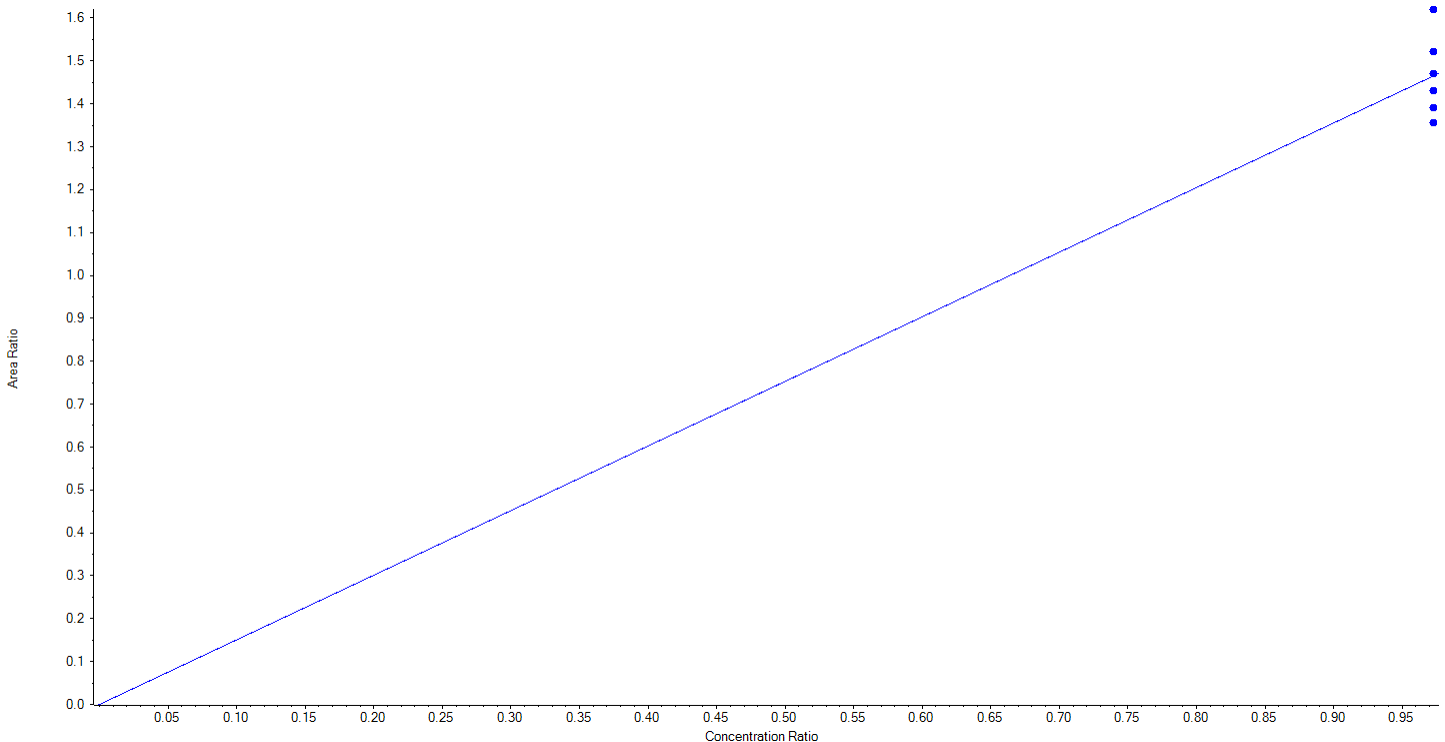
Calibration Summary Report

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C3-PFBS | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 302.0 / 99.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C4-PFOS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.50585 x$ (std. dev. = 0.09821) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1162.50 | 1135.63 | 97.7 |
| 3 | LD75 | L2 | True | 1162.50 | 1167.42 | 100.4 |
| 4 | LD76 | L3 | True | 1162.50 | 1076.09 | 92.6 |
| 5 | LD77 | L4 | True | 1162.50 | 1103.57 | 94.9 |
| 6 | LD78 | L5 | True | 1162.50 | 1285.28 | 110.6 |
| 7 | LD79 | L6 | True | 1162.50 | 1207.01 | 103.8 |





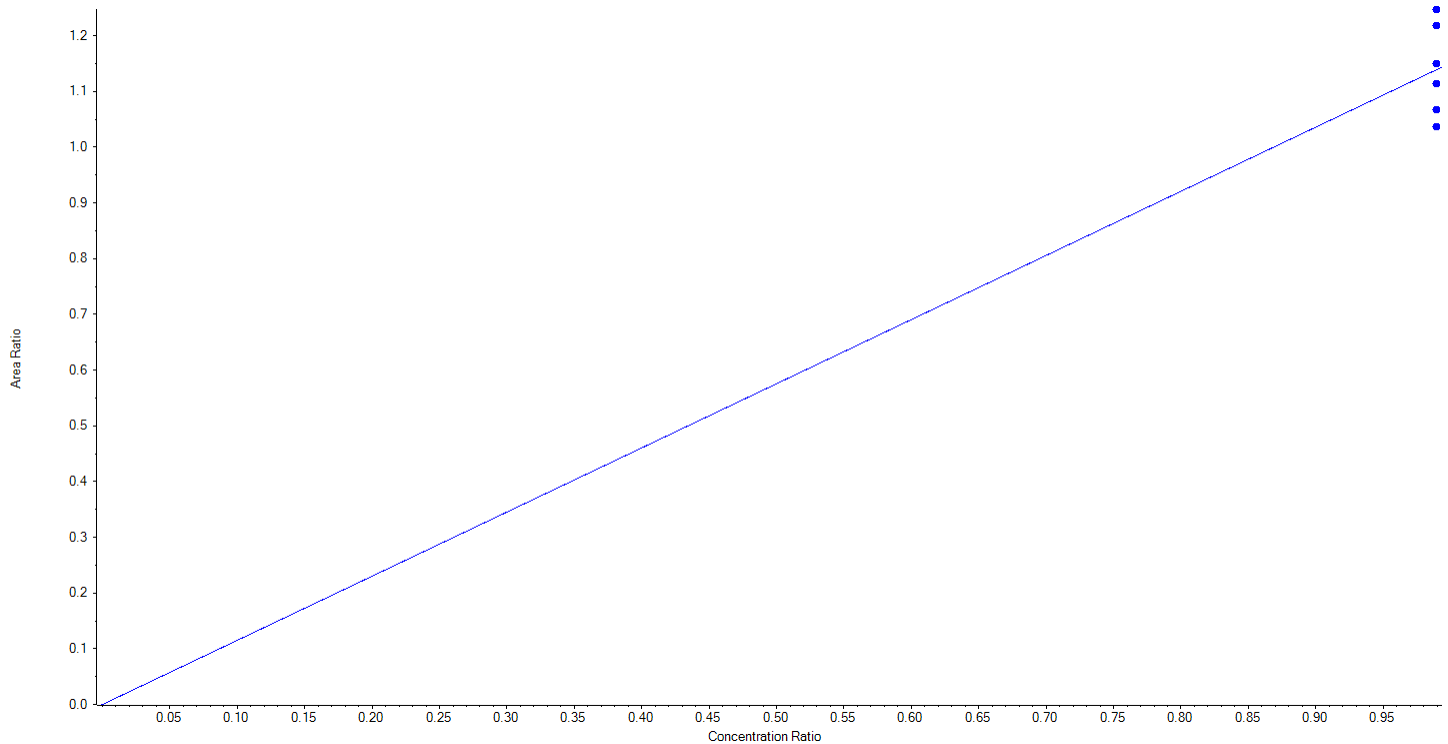
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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C3-PFHxS | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 402.0 / 99.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C4-PFOS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.15097 x$ (std. dev. = 0.08352) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1182.50 | 1264.34 | 106.9 |
| 3 | LD75 | L2 | True | 1182.50 | 1294.60 | 109.5 |
| 4 | LD76 | L3 | True | 1182.50 | 1077.06 | 91.1 |
| 5 | LD77 | L4 | True | 1182.50 | 1156.87 | 97.8 |
| 6 | LD78 | L5 | True | 1182.50 | 1194.64 | 101.0 |
| 7 | LD79 | L6 | True | 1182.50 | 1107.49 | 93.7 |





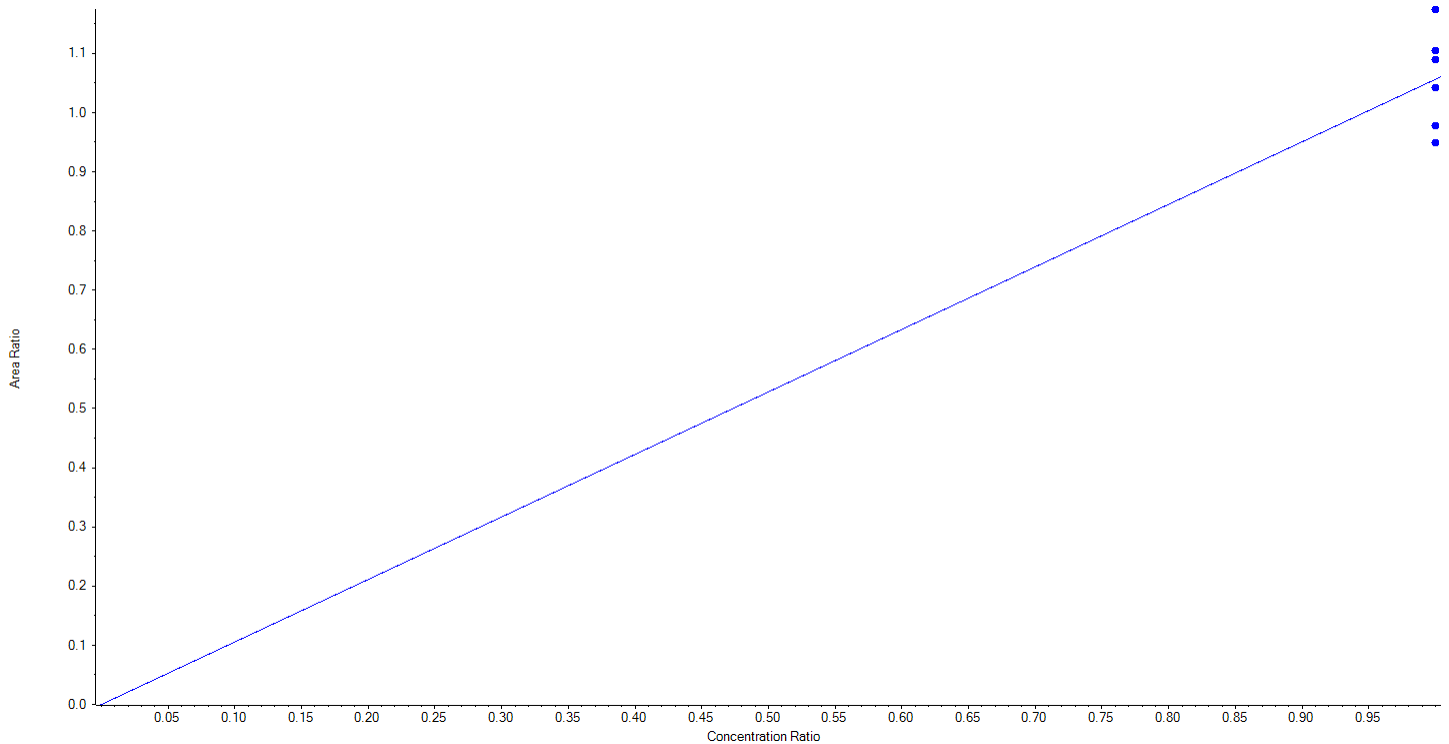
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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C8-PFOS | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 507.0 / 99.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C4-PFOS | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 1.05622 x$ (std. dev. = 0.08385) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1195.00 | 1328.33 | 111.2 |
| 3 | LD75 | L2 | True | 1195.00 | 1250.43 | 104.6 |
| 4 | LD76 | L3 | True | 1195.00 | 1074.57 | 89.9 |
| 5 | LD77 | L4 | True | 1195.00 | 1178.99 | 98.7 |
| 6 | LD78 | L5 | True | 1195.00 | 1232.16 | 103.1 |
| 7 | LD79 | L6 | True | 1195.00 | 1105.51 | 92.5 |





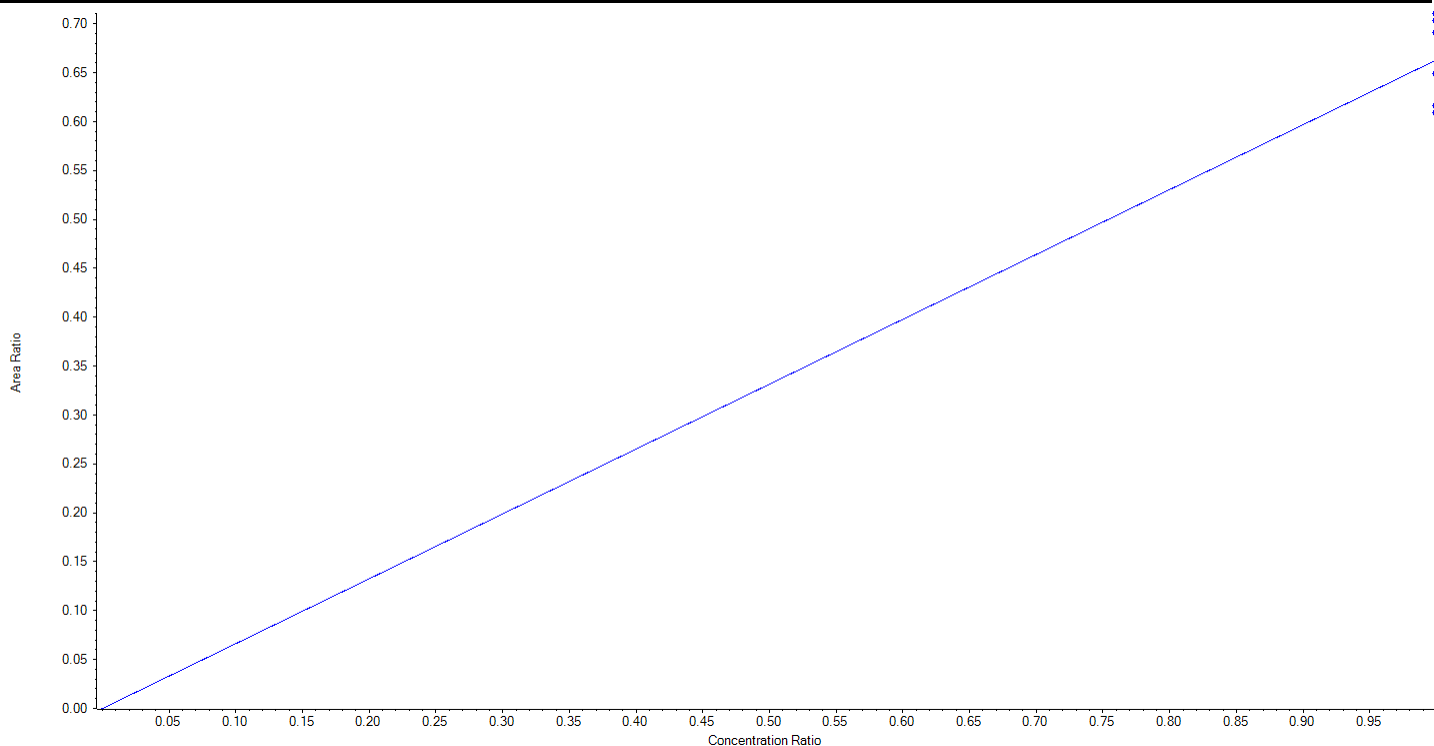
Calibration Summary Report

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|--------------------------|----------------------|---------------------------|----------------------------|
| Analyte Name | 13C3-HFPO-DA | Data File | AE_11052020_5-369.wiff |
| MRM Transition | 287.0 / 169.0 | Result Table | 20-1419_SIS |
| Internal Standard | 13C2-PFOA | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Acquisition Method | 5-369.dam |

Regression Equation: $y = 0.66313 x$ (std. dev. = 0.04466) (weighting: None) r^2 : N/A

| Vial | Sample Name | Sample ID | Used for ICAL | Target Conc. (ng/L) | Calculated Conc. (ng/L) | Recovery (%) |
|------|-------------|-----------|---------------|---------------------|-------------------------|--------------|
| 2 | LD74 | L1 | True | 1250.00 | 1326.04 | 106.1 |
| 3 | LD75 | L2 | True | 1250.00 | 1301.65 | 104.1 |
| 4 | LD76 | L3 | True | 1250.00 | 1147.56 | 91.8 |
| 5 | LD77 | L4 | True | 1250.00 | 1161.38 | 92.9 |
| 6 | LD78 | L5 | True | 1250.00 | 1224.10 | 97.9 |
| 7 | LD79 | L6 | True | 1250.00 | 1339.27 | 107.1 |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD74 | Injection Vial | 2 |
| Sample ID | L1 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|-----------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 173833.48 | 224.32 | 5369.5 | False | 13C3-PFBS | 247231.79 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 55799.48 | 219.02 | 1323.8 | False | 13C3-PFBS | 247231.79 | 1162.50 | PFBS | 0.321 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 329627.32 | 233.71 | 712.4 | False | 13C5-PFHxA | 1151975.28 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 21925.79 | 273.11 | 461.7 | False | 13C5-PFHxA | 1151975.28 | 1250.00 | PFHxA | 0.067 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 247137.86 | 236.85 | 360.6 | False | 13C4-PFHpA | 1141140.23 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.89 | 7359.75 | 225.58 | 11879.1 | False | 13C4-PFHpA | 1141140.23 | 1250.00 | PFHpA | 0.030 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 167618.96 | 221.39 | 617.1 | False | 13C3-PFHxS | 206899.68 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 50253.89 | 229.31 | 453.9 | False | 13C3-PFHxS | 206899.68 | 1182.50 | PFHxS | 0.300 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 291727.94 | 246.16 | 409.0 | False | 13C8-PFOA | 1316317.49 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 23190.11 | 231.68 | 233.9 | False | 13C8-PFOA | 1316317.49 | 1222.50 | PFOA | 0.079 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.63 | 241471.41 | 264.96 | 337.8 | False | 13C9-PFNA | 1154225.15 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.63 | 78587.85 | 268.61 | 1410.4 | False | 13C9-PFNA | 1154225.15 | 1250.00 | PFNA | 0.325 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 165674.08 | 242.46 | 322.5 | False | 13C8-PFOS | 199476.43 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 30762.25 | 230.42 | 604.9 | False | 13C8-PFOS | 199476.43 | 1195.00 | PFOS | 0.186 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.98 | 257681.38 | 216.20 | 388.5 | False | 13C6-PFDA | 1184745.73 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.97 | 12383.03 | 191.45 | 456.9 | False | 13C6-PFDA | 1184745.73 | 1250.00 | PFDA | 0.048 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.30 | 273159.89 | 224.08 | 544.1 | False | 13C7-PFUnA | 1045187.19 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.30 | 15276.02 | 238.19 | 445.7 | False | 13C7-PFUnA | 1045187.19 | 1250.00 | PFUnA | 0.056 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.60 | 277292.86 | 235.30 | 552.6 | False | 13C2-PFDoA | 1279052.97 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.60 | 33085.25 | 241.28 | 725.2 | False | 13C2-PFDoA | 1279052.97 | 1250.00 | PFDoA | 0.119 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.85 | 239017.93 | 221.44 | 917.6 | False | 13C2-PFTTeDA | 1201264.55 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.85 | 14844.47 | 223.98 | 680.2 | False | 13C2-PFTTeDA | 1201264.55 | 1250.00 | PFTTrDA | 0.062 | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | 4.08 | 277403.75 | 217.82 | 1405.4 | False | 13C2-PFTTeDA | 1201264.55 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | 4.08 | 14517.48 | 235.67 | 851.1 | False | 13C2-PFTTeDA | 1201264.55 | 1250.00 | PFTTeDA | 0.052 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 22764.79 | 288.42 | 2534.6 | False | d3-MeFOSAA | 158352.95 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.12 | 25527.28 | 245.61 | 13686.9 | False | d3-MeFOSAA | 158352.95 | 1250.00 | NMeFOSAA | 1.121 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 29702.34 | 244.19 | 912.5 | False | d5-EtFOSAA | 133644.32 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.28 | 2075.60 | 259.07 | 383.9 | True | d5-EtFOSAA | 133644.32 | 1250.00 | NEtFOSAA | 0.070 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 289172.66 | 238.97 | 1973.9 | False | 13C3-HFPO-DA | 468575.06 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 6002.08 | 266.90 | 624.9 | False | 13C3-HFPO-DA | 468575.06 | 1250.00 | HFPO-DA | 0.021 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 582570.65 | 242.30 | 6229.2 | False | 13C8-PFOA | 1316317.49 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 6875.98 | 230.73 | 83851.3 | False | 13C8-PFOA | 1316317.49 | 1222.50 | ADONA | 0.012 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 304495.88 | 271.37 | 873.2 | False | 13C8-PFOA | 1316317.49 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.82 | 2173.42 | 218.59 | 2203.1 | False | 13C8-PFOA | 1316317.49 | 1222.50 | 9CI-PF3ONS | 0.007 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.46 | 240797.09 | 255.78 | 1138.6 | False | 13C8-PFOA | 1316317.49 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.47 | 1248.42 | 279.82 | 84.6 | False | 13C8-PFOA | 1316317.49 | 1222.50 | 11Cl-PF3OUdS | 0.005 | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD75 | Injection Vial | 3 |
| Sample ID | L2 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:56:29 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 331058.04 | 524.64 | 6084.1 | False | 13C3-PFBS | 249786.91 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 107391.64 | 532.03 | 1660.7 | False | 13C3-PFBS | 249786.91 | 1162.50 | PFBS | 0.324 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 609734.38 | 533.78 | 834.1 | False | 13C5-PFHxA | 1120552.06 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 37664.31 | 531.46 | 675.9 | False | 13C5-PFHxA | 1120552.06 | 1250.00 | PFHxA | 0.062 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 427955.48 | 457.99 | 578.2 | False | 13C4-PFHpA | 1134271.92 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 14309.71 | 504.36 | 3060122.4 | False | 13C4-PFHpA | 1134271.92 | 1250.00 | PFHpA | 0.033 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.91 | 343957.30 | 530.50 | 1155.5 | False | 13C3-PFHxS | 207908.86 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.91 | 117997.51 | 546.03 | 840.6 | False | 13C3-PFHxS | 207908.86 | 1182.50 | PFHxS | 0.343 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 567774.23 | 544.76 | 419.7 | False | 13C8-PFOA | 1251001.72 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 55088.79 | 563.38 | 447.3 | False | 13C8-PFOA | 1251001.72 | 1222.50 | PFOA | 0.097 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.63 | 494270.61 | 561.12 | 513.2 | False | 13C9-PFNA | 1133414.85 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.63 | 156747.84 | 550.24 | 1275.0 | False | 13C9-PFNA | 1133414.85 | 1250.00 | PFNA | 0.317 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 341738.34 | 567.77 | 559.4 | False | 13C8-PFOS | 184284.38 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 69233.29 | 585.81 | 478.1 | False | 13C8-PFOS | 184284.38 | 1195.00 | PFOS | 0.203 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.98 | 478207.60 | 525.74 | 518.6 | False | 13C6-PFDA | 1067961.53 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.98 | 27904.14 | 544.21 | 1159100.1 | False | 13C6-PFDA | 1067961.53 | 1250.00 | PFDA | 0.058 | 0.058 | ✓ |
| PFOA_1 | 563.0 / 519.0 | 3.30 | 500083.89 | 506.99 | 702.3 | False | 13C7-PFOA | 982373.57 | 1250.00 | PFOA | | | |
| PFOA_2 | 563.0 / 269.0 | 3.30 | 32862.07 | 561.29 | 813.0 | False | 13C7-PFOA | 982373.57 | 1250.00 | PFOA | 0.066 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.60 | 537015.59 | 525.22 | 802.5 | False | 13C2-PFDoA | 1196394.39 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.59 | 61214.65 | 512.50 | 984.4 | False | 13C2-PFDoA | 1196394.39 | 1250.00 | PFDoA | 0.114 | 0.117 | ✓ |
| PFTeDA_1 | 663.0 / 619.0 | 3.85 | 457621.04 | 518.34 | 1293.8 | False | 13C2-PFTeDA | 1134184.94 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 663.0 / 169.0 | 3.85 | 33146.55 | 551.95 | 1030.7 | False | 13C2-PFTeDA | 1134184.94 | 1250.00 | PFTeDA | 0.072 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | 4.08 | 538628.33 | 529.90 | 2577.8 | False | 13C2-PFTeDA | 1134184.94 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | 4.08 | 30386.85 | 549.74 | 1518.3 | False | 13C2-PFTeDA | 1134184.94 | 1250.00 | PFTeDA | 0.056 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 44439.03 | 556.83 | 20816.2 | False | d3-MeFOSAA | 140509.23 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.13 | 49698.55 | 538.73 | 3496.2 | False | d3-MeFOSAA | 140509.23 | 1250.00 | NMeFOSAA | 1.118 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 55764.70 | 512.72 | 3529.9 | False | d5-EtFOSAA | 129495.18 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.29 | 3101.71 | 448.84 | 39176.0 | False | d5-EtFOSAA | 129495.18 | 1250.00 | NEtFOSAA | 0.056 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 524116.14 | 515.18 | 2317.6 | True | 13C3-HFPO-DA | 438035.90 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 10041.85 | 489.77 | 381.8 | False | 13C3-HFPO-DA | 438035.90 | 1250.00 | HFPO-DA | 0.019 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 1165693.94 | 539.47 | 3597.7 | False | 13C8-PFOA | 1251001.72 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 18739.37 | 589.48 | 44395.3 | False | 13C8-PFOA | 1251001.72 | 1222.50 | ADONA | 0.016 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 603339.55 | 546.95 | 1199.3 | False | 13C8-PFOA | 1251001.72 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.82 | 6696.94 | 592.19 | 728.0 | False | 13C8-PFOA | 1251001.72 | 1222.50 | 9CI-PF3ONS | 0.011 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.46 | 471504.99 | 527.09 | 1439.3 | False | 13C8-PFOA | 1251001.72 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.45 | 2661.82 | 572.03 | 393.6 | False | 13C8-PFOA | 1251001.72 | 1222.50 | 11Cl-PF3OUdS | 0.006 | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 | Injection Vial | 4 |
| Sample ID | L3 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:06:57 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 596536.28 | 967.62 | 13413.9 | False | 13C3-PFBS | 265933.64 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 193252.63 | 986.84 | 2081.3 | False | 13C3-PFBS | 265933.64 | 1162.50 | PFBS | 0.324 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 1082060.84 | 963.52 | 1268.6 | False | 13C5-PFHxA | 1184357.50 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 63620.26 | 887.72 | 1529.3 | False | 13C5-PFHxA | 1184357.50 | 1250.00 | PFHxA | 0.059 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 893792.80 | 1028.84 | 677.5 | False | 13C4-PFHpA | 1128267.94 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.89 | 26880.38 | 1011.10 | 1120.1 | False | 13C4-PFHpA | 1128267.94 | 1250.00 | PFHpA | 0.030 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 593587.29 | 1018.01 | 1646.8 | False | 13C3-PFHxS | 198801.08 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 205180.52 | 999.24 | 1719.7 | False | 13C3-PFHxS | 198801.08 | 1182.50 | PFHxS | 0.346 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 983793.70 | 894.52 | 610.5 | False | 13C8-PFOA | 1355335.48 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 93966.38 | 880.97 | 675.6 | False | 13C8-PFOA | 1355335.48 | 1222.50 | PFOA | 0.096 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.62 | 841207.39 | 887.17 | 708.8 | False | 13C9-PFNA | 1226477.54 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.62 | 278764.64 | 907.21 | 84248.6 | False | 13C9-PFNA | 1226477.54 | 1250.00 | PFNA | 0.331 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 575777.65 | 983.67 | 609.7 | False | 13C8-PFOS | 182014.52 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 110969.72 | 961.29 | 704.5 | False | 13C8-PFOS | 182014.52 | 1195.00 | PFOS | 0.193 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.97 | 882621.78 | 1000.74 | 601.9 | False | 13C6-PFDA | 1101699.32 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.97 | 51623.11 | 1010.68 | 1311.3 | False | 13C6-PFDA | 1101699.32 | 1250.00 | PFDA | 0.058 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.29 | 947613.98 | 962.73 | 753.3 | False | 13C7-PFUnA | 1043527.50 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.29 | 55430.71 | 898.64 | 1088.2 | False | 13C7-PFUnA | 1043527.50 | 1250.00 | PFUnA | 0.058 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.58 | 1002472.21 | 1015.93 | 1220.1 | False | 13C2-PFDoA | 1191078.06 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.58 | 115936.80 | 1007.48 | 1289.8 | False | 13C2-PFDoA | 1191078.06 | 1250.00 | PFDoA | 0.116 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.83 | 838880.36 | 957.79 | 1666.3 | False | 13C2-PFTTeDA | 1187911.85 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.83 | 59610.05 | 959.40 | 1576.5 | False | 13C2-PFTTeDA | 1187911.85 | 1250.00 | PFTTrDA | 0.071 | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | 4.06 | 977102.88 | 974.57 | 2470.2 | False | 13C2-PFTTeDA | 1187911.85 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | 4.06 | 53104.47 | 932.26 | 1642.6 | False | 13C2-PFTTeDA | 1187911.85 | 1250.00 | PFTTeDA | 0.054 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.11 | 77724.54 | 830.19 | 6232272.5 | False | d3-MeFOSAA | 157988.70 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.11 | 94902.54 | 914.83 | 39296.5 | False | d3-MeFOSAA | 157988.70 | 1250.00 | NMeFOSAA | 1.221 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.28 | 105811.15 | 959.11 | 1301.4 | False | d5-EtFOSAA | 136172.85 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.28 | 7242.07 | 1107.49 | 4061.8 | True | d5-EtFOSAA | 136172.85 | 1250.00 | NEtFOSAA | 0.068 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 960553.36 | 972.19 | 3115.1 | False | 13C3-HFPO-DA | 446753.27 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 17660.28 | 857.02 | 10252.1 | False | 13C3-HFPO-DA | 446753.27 | 1250.00 | HFPO-DA | 0.018 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 2118039.39 | 922.70 | 7266.2 | False | 13C8-PFOA | 1355335.48 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 30290.72 | 860.48 | 4732.9 | False | 13C8-PFOA | 1355335.48 | 1222.50 | ADONA | 0.014 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.82 | 1032848.15 | 854.16 | 1826.8 | False | 13C8-PFOA | 1355335.48 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.83 | 13256.44 | 1039.02 | 425.6 | False | 13C8-PFOA | 1355335.48 | 1222.50 | 9CI-PF3ONS | 0.013 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.45 | 855774.73 | 883.09 | 2105.6 | False | 13C8-PFOA | 1355335.48 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.44 | 4250.23 | 821.84 | 217.5 | False | 13C8-PFOA | 1355335.48 | 1222.50 | 11Cl-PF3OUdS | 0.005 | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD77 | Injection Vial | 5 |
| Sample ID | L4 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:17:24 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 1504397.12 | 2657.99 | 12172.7 | False | 13C3-PFBS | 261840.25 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 475879.54 | 2658.51 | 3362.7 | False | 13C3-PFBS | 261840.25 | 1162.50 | PFBS | 0.316 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 2729523.25 | 2705.09 | 1609.2 | False | 13C5-PFHxA | 1132114.85 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 161228.86 | 2459.46 | 1776.1 | False | 13C5-PFHxA | 1132114.85 | 1250.00 | PFHxA | 0.059 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 2284119.21 | 2723.53 | 1118.9 | False | 13C4-PFHpA | 1128597.37 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 67947.48 | 2655.85 | 8415804.6 | False | 13C4-PFHpA | 1128597.37 | 1250.00 | PFHpA | 0.030 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.91 | 1564987.95 | 2690.88 | 2113.2 | False | 13C3-PFHxS | 207154.68 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.91 | 537298.96 | 2522.73 | 1384.2 | False | 13C3-PFHxS | 207154.68 | 1182.50 | PFHxS | 0.343 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 2537391.36 | 2500.23 | 974.8 | False | 13C8-PFOA | 1284982.99 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 260250.09 | 2553.39 | 1412.1 | False | 13C8-PFOA | 1284982.99 | 1222.50 | PFOA | 0.103 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.62 | 2243431.02 | 2322.40 | 927.6 | False | 13C9-PFNA | 1256553.53 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.62 | 731494.31 | 2330.61 | 2444.9 | False | 13C9-PFNA | 1256553.53 | 1250.00 | PFNA | 0.326 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 1431977.83 | 2327.07 | 1062.1 | False | 13C8-PFOS | 193734.38 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 291763.43 | 2399.60 | 1327.9 | False | 13C8-PFOS | 193734.38 | 1195.00 | PFOS | 0.204 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.97 | 2304023.37 | 2729.15 | 1013.1 | False | 13C6-PFDA | 1104013.14 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.97 | 138727.53 | 2783.88 | 1982.2 | False | 13C6-PFDA | 1104013.14 | 1250.00 | PFDA | 0.060 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.28 | 2517621.36 | 2714.86 | 1261.8 | False | 13C7-PFUnA | 1030886.94 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.28 | 156983.35 | 2599.58 | 2972.5 | False | 13C7-PFUnA | 1030886.94 | 1250.00 | PFUnA | 0.062 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.56 | 2582474.18 | 2399.91 | 1630.7 | False | 13C2-PFDoA | 1324713.38 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.56 | 307757.36 | 2454.56 | 2317.1 | False | 13C2-PFDoA | 1324713.38 | 1250.00 | PFDoA | 0.119 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.80 | 2353520.91 | 2698.21 | 2742.5 | False | 13C2-PFTTeDA | 1235436.27 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.80 | 160240.62 | 2505.62 | 1777.2 | False | 13C2-PFTTeDA | 1235436.27 | 1250.00 | PFTTrDA | 0.068 | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | 4.01 | 2617895.65 | 2632.92 | 3019.3 | False | 13C2-PFTTeDA | 1235436.27 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | 4.01 | 146395.23 | 2508.14 | 2524.8 | False | 13C2-PFTTeDA | 1235436.27 | 1250.00 | PFTTeDA | 0.056 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.11 | 205460.65 | 2208.50 | 6270.1 | False | d3-MeFOSAA | 149118.64 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.10 | 236169.43 | 2411.80 | 2592.9 | False | d3-MeFOSAA | 149118.64 | 1250.00 | NMeFOSAA | 1.149 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.27 | 279859.09 | 2436.80 | 1727.8 | False | d5-EtFOSAA | 145476.55 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.26 | 15913.12 | 2373.93 | 2250.8 | False | d5-EtFOSAA | 145476.55 | 1250.00 | NEtFOSAA | 0.057 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 2451892.61 | 2646.36 | 1950.6 | True | 13C3-HFPO-DA | 438649.39 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 55127.81 | 2791.16 | 906.6 | False | 13C3-HFPO-DA | 438649.39 | 1250.00 | HFPO-DA | 0.022 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 5328768.59 | 2492.38 | 13362.5 | False | 13C8-PFOA | 1284982.99 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 88674.66 | 2576.23 | 529164.5 | False | 13C8-PFOA | 1284982.99 | 1222.50 | ADONA | 0.017 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.82 | 2915453.50 | 2508.75 | 2153.0 | False | 13C8-PFOA | 1284982.99 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.82 | 29877.46 | 2398.39 | 9516.9 | False | 13C8-PFOA | 1284982.99 | 1222.50 | 9CI-PF3ONS | 0.010 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.42 | 2310307.30 | 2514.74 | 2423.5 | False | 13C8-PFOA | 1284982.99 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.43 | 11430.02 | 2248.83 | 717.3 | False | 13C8-PFOA | 1284982.99 | 1222.50 | 11Cl-PF3OUdS | 0.005 | 0.005 | ✓ |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD78 | Injection Vial | 6 |
| Sample ID | L5 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:27:51 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|-------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 5579004.37 | 10460.31 | 34918.5 | False | 13C3-PFBS | 254618.82 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 1725281.21 | 10257.86 | 6427.0 | False | 13C3-PFBS | 254618.82 | 1162.50 | PFBS | 0.309 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 9067220.74 | 10063.50 | 3102.8 | False | 13C5-PFHxA | 1037720.67 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 602548.81 | 10225.09 | 2495.3 | False | 13C5-PFHxA | 1037720.67 | 1250.00 | PFHxA | 0.066 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 7589480.88 | 10437.37 | 1798.2 | False | 13C4-PFHpA | 994667.05 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.89 | 229309.12 | 10356.54 | 2489.1 | False | 13C4-PFHpA | 994667.05 | 1250.00 | PFHpA | 0.030 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.91 | 5074956.33 | 10197.19 | 4230.1 | False | 13C3-PFHxS | 180889.80 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.91 | 1943870.22 | 10476.15 | 3081.7 | False | 13C3-PFHxS | 180889.80 | 1182.50 | PFHxS | 0.383 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 9273041.86 | 10477.64 | 1649.8 | False | 13C8-PFOA | 1133788.90 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 967317.67 | 10722.57 | 2303.5 | False | 13C8-PFOA | 1133788.90 | 1222.50 | PFOA | 0.104 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.63 | 7727838.04 | 9887.37 | 1356.6 | False | 13C9-PFNA | 1019399.44 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.63 | 2448834.96 | 9631.41 | 3815.1 | False | 13C9-PFNA | 1019399.44 | 1250.00 | PFNA | 0.317 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 5573273.10 | 10321.41 | 2016.1 | False | 13C8-PFOS | 171210.96 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 1116678.49 | 10449.07 | 2676.0 | False | 13C8-PFOS | 171210.96 | 1195.00 | PFOS | 0.200 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.98 | 7454876.13 | 10003.38 | 1658.7 | False | 13C6-PFDA | 994189.12 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.98 | 467851.62 | 10545.70 | 2157.2 | False | 13C6-PFDA | 994189.12 | 1250.00 | PFDA | 0.063 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.30 | 8454080.61 | 10789.13 | 2444.2 | False | 13C7-PFUnA | 888804.18 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.30 | 508519.32 | 9801.54 | 2854.4 | False | 13C7-PFUnA | 888804.18 | 1250.00 | PFUnA | 0.060 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.59 | 9640046.57 | 10491.86 | 2478.1 | False | 13C2-PFDoA | 1143993.33 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.59 | 1105147.54 | 10320.48 | 3207.9 | False | 13C2-PFDoA | 1143993.33 | 1250.00 | PFDoA | 0.115 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.85 | 7902048.22 | 10772.18 | 3202.5 | False | 13C2-PFTeDA | 1058335.19 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.85 | 579839.80 | 10636.48 | 2991.5 | False | 13C2-PFTeDA | 1058335.19 | 1250.00 | PFTTrDA | 0.073 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | 4.08 | 8963874.16 | 10756.37 | 3794.3 | False | 13C2-PFTeDA | 1058335.19 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | 4.08 | 514315.70 | 10355.63 | 3862.3 | False | 13C2-PFTeDA | 1058335.19 | 1250.00 | PFTeDA | 0.057 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 810707.78 | 10073.48 | 9938.1 | False | d3-MeFOSAA | 126026.40 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.12 | 903464.13 | 10916.42 | 3067.3 | False | d3-MeFOSAA | 126026.40 | 1250.00 | NMeFOSAA | 1.114 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 951303.55 | 11001.77 | 2013.0 | False | d5-EtFOSAA | 111000.95 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.29 | 50245.28 | 10108.88 | 16879.7 | False | d5-EtFOSAA | 111000.95 | 1250.00 | NEtFOSAA | 0.053 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 8871914.08 | 9797.29 | 10870.1 | False | 13C3-HFPO-DA | 458915.13 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 191811.46 | 9762.79 | 83948.0 | False | 13C3-HFPO-DA | 458915.13 | 1250.00 | HFPO-DA | 0.022 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 19650904.79 | 10501.12 | 19514.4 | False | 13C8-PFOA | 1133788.90 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 310951.76 | 10123.72 | 5400.0 | False | 13C8-PFOA | 1133788.90 | 1222.50 | ADONA | 0.016 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 9622598.61 | 9336.87 | 3809.6 | False | 13C8-PFOA | 1133788.90 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.83 | 101056.63 | 9046.78 | 6696.2 | False | 13C8-PFOA | 1133788.90 | 1222.50 | 9CI-PF3ONS | 0.011 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.46 | 8523932.42 | 10515.78 | 4773.6 | False | 13C8-PFOA | 1133788.90 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.45 | 45719.69 | 10036.41 | 1166.4 | False | 13C8-PFOA | 1133788.90 | 1222.50 | 11Cl-PF3OUdS | 0.005 | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD79 | Injection Vial | 7 |
| Sample ID | L6 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:38:18 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|-------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 12924033.99 | 24415.12 | 46462.9 | False | 13C3-PFBS | 254288.17 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 4101985.78 | 24595.73 | 12078.4 | False | 13C3-PFBS | 254288.17 | 1162.50 | PFBS | 0.317 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 20844417.49 | 25142.90 | 4540.6 | False | 13C5-PFHxA | 960455.06 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 1372895.07 | 25265.67 | 4375.3 | False | 13C5-PFHxA | 960455.06 | 1250.00 | PFHxA | 0.066 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 17172771.61 | 24365.41 | 2714.1 | False | 13C4-PFHpA | 967323.51 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.89 | 525551.84 | 24496.57 | 3323.9 | False | 13C4-PFHpA | 967323.51 | 1250.00 | PFHpA | 0.031 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 12205619.37 | 24984.54 | 4825.8 | False | 13C3-PFHxS | 178335.45 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 4547415.67 | 24869.04 | 4751.3 | False | 13C3-PFHxS | 178335.45 | 1182.50 | PFHxS | 0.373 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 20888560.74 | 24586.69 | 2338.3 | False | 13C8-PFOA | 1090692.65 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 2109835.89 | 24298.01 | 2468.2 | False | 13C8-PFOA | 1090692.65 | 1222.50 | PFOA | 0.101 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.63 | 18707194.94 | 25326.99 | 2342.5 | False | 13C9-PFNA | 963850.33 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.63 | 6143303.20 | 25561.92 | 8016.8 | False | 13C9-PFNA | 963850.33 | 1250.00 | PFNA | 0.328 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 12967648.68 | 25200.13 | 2664.7 | False | 13C8-PFOS | 163361.81 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 2548475.17 | 25016.30 | 2920.6 | False | 13C8-PFOS | 163361.81 | 1195.00 | PFOS | 0.197 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.98 | 17746588.54 | 24774.79 | 2134.0 | False | 13C6-PFDA | 959933.49 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.98 | 1033098.85 | 24174.07 | 3433.5 | False | 13C6-PFDA | 959933.49 | 1250.00 | PFDA | 0.058 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.30 | 17313662.10 | 24052.20 | 2804.7 | False | 13C7-PFUnA | 819602.97 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.30 | 1202330.02 | 25150.76 | 3077.5 | False | 13C7-PFUnA | 819602.97 | 1250.00 | PFUnA | 0.069 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.59 | 21437695.63 | 24581.77 | 3043.3 | False | 13C2-PFDoA | 1087935.65 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.59 | 2511638.63 | 24713.70 | 3178.5 | False | 13C2-PFDoA | 1087935.65 | 1250.00 | PFDoA | 0.117 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.85 | 17759205.26 | 24082.04 | 3678.1 | False | 13C2-PFTTeDA | 1067611.26 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.85 | 1339143.21 | 24372.58 | 3393.7 | False | 13C2-PFTTeDA | 1067611.26 | 1250.00 | PFTTrDA | 0.075 | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | 4.08 | 20211636.76 | 24138.42 | 3719.8 | False | 13C2-PFTTeDA | 1067611.26 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | 4.08 | 1234361.44 | 24668.55 | 3609.6 | False | 13C2-PFTTeDA | 1067611.26 | 1250.00 | PFTTeDA | 0.061 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.13 | 2081488.92 | 25292.58 | 3142.1 | False | d3-MeFOSAA | 128372.04 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.12 | 2042034.97 | 24222.60 | 2429.8 | False | d3-MeFOSAA | 128372.04 | 1250.00 | NMeFOSAA | 0.981 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 2063249.23 | 24095.42 | 1872.7 | False | d5-EtFOSAA | 110151.49 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.29 | 122419.11 | 24951.78 | 7597.5 | False | d5-EtFOSAA | 110151.49 | 1250.00 | NEtFOSAA | 0.059 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 21080787.02 | 25087.80 | 6113.6 | True | 13C3-HFPO-DA | 483963.95 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 464715.87 | 25089.09 | 167247.6 | False | 13C3-HFPO-DA | 483963.95 | 1250.00 | HFPO-DA | 0.022 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 44134480.33 | 24552.03 | 18416.9 | False | 13C8-PFOA | 1090692.65 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 736500.72 | 24869.36 | 6964.7 | False | 13C8-PFOA | 1090692.65 | 1222.50 | ADONA | 0.017 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 25541620.63 | 25731.91 | 7622.6 | False | 13C8-PFOA | 1090692.65 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.83 | 279958.67 | 25955.03 | 3619.5 | False | 13C8-PFOA | 1090692.65 | 1222.50 | 9CI-PF3ONS | 0.011 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.46 | 19146093.14 | 24553.52 | 6726.1 | False | 13C8-PFOA | 1090692.65 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.46 | 111131.18 | 25291.07 | 1838.4 | False | 13C8-PFOA | 1090692.65 | 1222.50 | 11Cl-PF3OUdS | 0.006 | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD74 | Injection Vial | 2 |
| Sample ID | L1 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1279052.97 | 1247.58 | 3868.5 | False | 13C2-PFDA | 1024257.59 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 157916.70 | 1406.65 | 1230.0 | False | 13C4-PFOS | 169902.02 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 133535.87 | 1333.86 | 993.6 | False | 13C4-PFOS | 169902.02 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 1151975.28 | 1354.18 | 5140.7 | False | 13C2-PFOA | 666092.74 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 1141140.23 | 1359.45 | 11415.3 | False | 13C2-PFOA | 666092.74 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1316317.49 | 1341.46 | 1426.3 | False | 13C2-PFOA | 666092.74 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.62 | 1154225.15 | 1306.47 | 12066.9 | False | 13C4-PFOS | 169902.02 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 1184745.73 | 1303.63 | 4196.1 | False | 13C2-PFDA | 1024257.59 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 1045187.19 | 1271.11 | 3458.8 | False | 13C2-PFDA | 1024257.59 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.08 | 1201264.55 | 1229.35 | 4329.7 | False | 13C2-PFDA | 1024257.59 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.30 | 243137.22 | 1135.63 | 5421.7 | True | 13C4-PFOS | 169902.02 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 206899.68 | 1264.34 | 35829.1 | False | 13C4-PFOS | 169902.02 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.62 | 199476.43 | 1328.33 | 1440.9 | False | 13C4-PFOS | 169902.02 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 468575.06 | 1326.04 | 3901.9 | False | 13C2-PFOA | 666092.74 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD75 | Injection Vial | 3 |
| Sample ID | L2 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:56:29 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|------------|----------|-----------|-----------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1196394.39 | 1210.58 | 3847.4 | False | 13C2-PFDA | 987350.36 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 139811.46 | 1268.99 | 951.7 | False | 13C4-PFOS | 166740.64 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 129604.73 | 1319.14 | 953.3 | False | 13C4-PFOS | 166740.64 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1120552.06 | 1383.16 | 6383.2 | False | 13C2-PFOA | 634349.70 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1134271.92 | 1418.88 | 40664621.0 | False | 13C2-PFOA | 634349.70 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1251001.72 | 1338.69 | 6098.2 | False | 13C2-PFOA | 634349.70 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.62 | 1133414.85 | 1307.23 | 971.4 | False | 13C4-PFOS | 166740.64 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 1067961.53 | 1219.05 | 3287.7 | False | 13C2-PFDA | 987350.36 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 982373.57 | 1239.37 | 3031.5 | False | 13C2-PFDA | 987350.36 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.08 | 1134184.94 | 1204.09 | 3773.7 | False | 13C2-PFDA | 987350.36 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 245291.48 | 1167.42 | 3870.9 | True | 13C4-PFOS | 166740.64 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 207908.86 | 1294.60 | 6911.6 | False | 13C4-PFOS | 166740.64 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.62 | 184284.38 | 1250.43 | 1314.5 | False | 13C4-PFOS | 166740.64 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 438035.90 | 1301.65 | 174687.1 | False | 13C2-PFOA | 634349.70 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 | Injection Vial | 4 |
| Sample ID | L3 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:06:57 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.58 | 1191078.06 | 1139.03 | 4257.6 | False | 13C2-PFDA | 1044704.24 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 157032.27 | 1240.11 | 995.8 | False | 13C4-PFOS | 191638.83 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.28 | 134679.98 | 1192.70 | 1126.5 | False | 13C4-PFOS | 191638.83 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 1184357.50 | 1263.71 | 5268.6 | False | 13C2-PFOA | 733846.07 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1128267.94 | 1220.02 | 524939.0 | False | 13C2-PFOA | 733846.07 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1355335.48 | 1253.70 | 8930.3 | False | 13C2-PFOA | 733846.07 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.62 | 1226477.54 | 1230.78 | 3415.4 | False | 13C4-PFOS | 191638.83 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 1101699.32 | 1188.52 | 3980.6 | False | 13C2-PFDA | 1044704.24 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.29 | 1043527.50 | 1244.25 | 3732.3 | False | 13C2-PFDA | 1044704.24 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.06 | 1187911.85 | 1191.90 | 5019.6 | False | 13C2-PFDA | 1044704.24 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 259864.84 | 1076.09 | 4398.0 | True | 13C4-PFOS | 191638.83 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 198801.08 | 1077.06 | 65937.4 | False | 13C4-PFOS | 191638.83 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 182014.52 | 1074.57 | 1313.2 | False | 13C4-PFOS | 191638.83 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 446753.27 | 1147.56 | 3757.0 | False | 13C2-PFOA | 733846.07 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD77 | Injection Vial | 5 |
| Sample ID | L4 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:17:24 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|-----------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.56 | 1324713.38 | 1406.82 | 4152.1 | False | 13C2-PFDA | 940747.67 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.10 | 148036.85 | 1205.07 | 991.6 | False | 13C4-PFOS | 185913.74 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.26 | 145978.36 | 1332.56 | 1224.4 | False | 13C4-PFOS | 185913.74 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1132114.85 | 1245.10 | 7631.9 | False | 13C2-PFOA | 711956.51 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1128597.37 | 1257.89 | 1511.2 | False | 13C2-PFOA | 711956.51 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1284982.99 | 1225.17 | 1594277.1 | False | 13C2-PFOA | 711956.51 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.61 | 1256553.53 | 1299.80 | 15093.2 | False | 13C4-PFOS | 185913.74 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.96 | 1104013.14 | 1322.63 | 242044.9 | False | 13C2-PFDA | 940747.67 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.27 | 1030886.94 | 1365.01 | 4098.1 | False | 13C2-PFDA | 940747.67 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.01 | 1235436.27 | 1376.56 | 3167.1 | False | 13C2-PFDA | 940747.67 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 258540.12 | 1103.57 | 6401.6 | True | 13C4-PFOS | 185913.74 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 207154.68 | 1156.87 | 8381.4 | False | 13C4-PFOS | 185913.74 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 193734.38 | 1178.99 | 961.6 | False | 13C4-PFOS | 185913.74 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 438649.39 | 1161.38 | 4647.1 | False | 13C2-PFOA | 711956.51 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD78 | Injection Vial | 6 |
| Sample ID | L5 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:27:51 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|-----------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1143993.33 | 1216.99 | 4781.9 | False | 13C2-PFDA | 939129.34 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 126330.32 | 1216.14 | 935.8 | False | 13C4-PFOS | 157209.48 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 111440.30 | 1203.03 | 930.9 | False | 13C4-PFOS | 157209.48 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 1037720.67 | 1149.80 | 7117.0 | False | 13C2-PFOA | 706685.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 994667.05 | 1116.89 | 12223.4 | False | 13C2-PFOA | 706685.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1133788.90 | 1089.07 | 69783.1 | False | 13C2-PFOA | 706685.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.62 | 1019399.44 | 1247.02 | 3561.7 | False | 13C4-PFOS | 157209.48 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 994189.12 | 1193.11 | 1001.0 | False | 13C2-PFDA | 939129.34 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 888804.18 | 1178.90 | 4201.4 | False | 13C2-PFDA | 939129.34 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 1058335.19 | 1181.26 | 3644.1 | False | 13C2-PFDA | 939129.34 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 254618.82 | 1285.28 | 5227.6 | False | 13C4-PFOS | 157209.48 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 180889.80 | 1194.64 | 6421.0 | False | 13C4-PFOS | 157209.48 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.62 | 171210.96 | 1232.16 | 2115.2 | False | 13C4-PFOS | 157209.48 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 458915.13 | 1224.10 | 3872.9 | False | 13C2-PFOA | 706685.09 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD79 | Injection Vial | 7 |
| Sample ID | L6 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:38:18 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|-----------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1087935.65 | 1278.99 | 3840.4 | False | 13C2-PFDA | 849818.95 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 128481.14 | 1163.04 | 1150.1 | False | 13C4-PFOS | 167186.16 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 110206.48 | 1118.71 | 996.3 | False | 13C4-PFOS | 167186.16 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 960455.06 | 1104.05 | 6994.5 | False | 13C2-PFOA | 681173.46 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 967323.51 | 1126.87 | 110595.0 | False | 13C2-PFOA | 681173.46 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1090692.65 | 1086.92 | 1258711.3 | False | 13C2-PFOA | 681173.46 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.62 | 963850.33 | 1108.70 | 3242.5 | False | 13C4-PFOS | 167186.16 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 959933.49 | 1273.07 | 2456.5 | False | 13C2-PFDA | 849818.95 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 819602.97 | 1201.36 | 3901.2 | False | 13C2-PFDA | 849818.95 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 1067611.26 | 1316.84 | 4275.3 | False | 13C2-PFDA | 849818.95 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 254288.17 | 1207.01 | 4899.2 | False | 13C4-PFOS | 167186.16 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 178335.45 | 1107.49 | 6488.3 | False | 13C4-PFOS | 167186.16 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 163361.81 | 1105.51 | 1668.2 | False | 13C4-PFOS | 167186.16 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 483963.95 | 1339.27 | 31271.9 | False | 13C2-PFOA | 681173.46 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD81 ICC | Injection Vial | 9 |
| Sample ID | ICC | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:59:12 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|----------------|----------------|------|--------------|---------------------|--------------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 2781.43 | 2500.00 | 111.26 |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 2803.90 | 2500.00 | 112.16 |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 2764.25 | 2525.00 | 109.48 |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 2546.64 | 2525.00 | 100.86 |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 2564.52 | 2500.00 | 102.58 |
| PFHpA_2 | 363.0 / 169.0 | 1.89 | 2904.20 | 2500.00 | 116.17 |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 2776.22 | 2525.00 | 109.95 |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 2668.51 | 2525.00 | 105.68 |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 2480.21 | 2500.00 | 99.21 |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 2431.26 | 2500.00 | 97.25 |
| PFNA_1 | 463.0 / 419.0 | 2.62 | 2626.47 | 2500.00 | 105.06 |
| PFNA_2 | 463.0 / 219.0 | 2.62 | 2681.43 | 2500.00 | 107.26 |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 2420.82 | 2525.00 | 95.87 |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 2381.24 | 2525.00 | 94.31 |
| PFDA_1 | 513.0 / 469.0 | 2.98 | 2955.00 | 2500.00 | 118.20 |
| PFDA_2 | 513.0 / 219.0 | 2.97 | 2667.78 | 2500.00 | 106.71 |
| PFUnA_1 | 563.0 / 519.0 | 3.30 | 2571.27 | 2500.00 | 102.85 |
| PFUnA_2 | 563.0 / 269.0 | 3.30 | 2393.18 | 2500.00 | 95.73 |
| PFDoA_1 | 613.0 / 569.0 | 3.59 | 2710.30 | 2500.00 | 108.41 |
| PFDoA_2 | 613.0 / 319.0 | 3.59 | 2675.07 | 2500.00 | 107.00 |
| PFTrDA_1 | 663.0 / 619.0 | 3.84 | 2733.53 | 2500.00 | 109.34 |
| PFTrDA_2 | 663.0 / 169.0 | 3.84 | 2759.97 | 2500.00 | 110.40 |
| PFTeDA_1 | 713.0 / 669.0 | 4.07 | 2626.53 | 2500.00 | 105.06 |
| PFTeDA_2 | 713.0 / 169.0 | 4.07 | 2530.14 | 2500.00 | 101.21 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 2486.45 | 2500.00 | 99.46 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.12 | 2759.53 | 2500.00 | 110.38 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 2437.67 | 2500.00 | 97.51 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.28 | 2547.86 | 2500.00 | 101.91 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 2871.70 | 2500.00 | 114.87 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 2522.39 | 2500.00 | 100.90 |
| ADONA_1 | 377.0 / 251.0 | 1.92 | 2586.73 | 2500.00 | 103.47 |
| ADONA_2 | 377.0 / 85.0 | 1.92 | 2370.45 | 2500.00 | 94.82 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 2494.88 | 2500.00 | 99.80 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.83 | 2461.15 | 2500.00 | 98.45 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.45 | 2375.52 | 2500.00 | 95.02 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.45 | 2617.70 | 2500.00 | 104.71 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 1:12:05 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|----------------|----------------|------|--------------|---------------------|--------------|
| PFBS_1 | 298.9 / 80.0 | 1.33 | 959.66 | 1000.00 | 95.97 |
| PFBS_2 | 298.9 / 99.0 | 1.33 | 1022.60 | 1000.00 | 102.26 |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 997.99 | 1010.00 | 98.81 |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 946.76 | 1010.00 | 93.74 |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 1024.84 | 1000.00 | 102.48 |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 998.65 | 1000.00 | 99.86 |
| PFHxS_1 | 399.0 / 80.0 | 1.91 | 890.57 | 1010.00 | 88.18 |
| PFHxS_2 | 399.0 / 99.0 | 1.91 | 914.50 | 1010.00 | 90.54 |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 978.20 | 1000.00 | 97.82 |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 913.23 | 1000.00 | 91.32 |
| PFNA_1 | 463.0 / 419.0 | 2.63 | 999.19 | 1000.00 | 99.92 |
| PFNA_2 | 463.0 / 219.0 | 2.63 | 983.64 | 1000.00 | 98.36 |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 928.90 | 1010.00 | 91.97 |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 1058.40 | 1010.00 | 104.79 |
| PFDA_1 | 513.0 / 469.0 | 2.98 | 939.76 | 1000.00 | 93.98 |
| PFDA_2 | 513.0 / 219.0 | 2.98 | 1021.70 | 1000.00 | 102.17 |
| PFUnA_1 | 563.0 / 519.0 | 3.31 | 921.97 | 1000.00 | 92.20 |
| PFUnA_2 | 563.0 / 269.0 | 3.31 | 955.84 | 1000.00 | 95.58 |
| PFDoA_1 | 613.0 / 569.0 | 3.60 | 970.04 | 1000.00 | 97.00 |
| PFDoA_2 | 613.0 / 319.0 | 3.60 | 987.27 | 1000.00 | 98.73 |
| PFTrDA_1 | 663.0 / 619.0 | 3.86 | 981.11 | 1000.00 | 98.11 |
| PFTrDA_2 | 663.0 / 169.0 | 3.85 | 984.49 | 1000.00 | 98.45 |
| PFTeDA_1 | 713.0 / 669.0 | 4.09 | 982.59 | 1000.00 | 98.26 |
| PFTeDA_2 | 713.0 / 169.0 | 4.09 | 1031.84 | 1000.00 | 103.18 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.13 | 874.67 | 1000.00 | 87.47 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.13 | 924.90 | 1000.00 | 92.49 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 987.57 | 1000.00 | 98.76 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.29 | 748.32 | 1000.00 | 74.83 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.66 | 1069.67 | 1000.00 | 106.97 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 834.23 | 1000.00 | 83.42 |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 998.66 | 1000.00 | 99.87 |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 1099.07 | 1000.00 | 109.91 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 933.80 | 1000.00 | 93.38 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.82 | 1081.71 | 1000.00 | 108.17 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.46 | 924.44 | 1000.00 | 92.44 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.46 | 1150.66 | 1000.00 | 115.07 |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:17:56 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|----------------|----------------|------|--------------|---------------------|--------------|
| PFBS_1 | 298.9 / 80.0 | 1.33 | 1050.27 | 1000.00 | 105.03 |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 1098.68 | 1000.00 | 109.87 |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 979.57 | 1010.00 | 96.99 |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 795.89 | 1010.00 | 78.80 |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 990.23 | 1000.00 | 99.02 |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 1000.07 | 1000.00 | 100.01 |
| PFHxS_1 | 399.0 / 80.0 | 1.91 | 938.50 | 1010.00 | 92.92 |
| PFHxS_2 | 399.0 / 99.0 | 1.91 | 977.97 | 1010.00 | 96.83 |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 785.49 | 1000.00 | 78.55 |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 849.78 | 1000.00 | 84.98 |
| PFNA_1 | 463.0 / 419.0 | 2.63 | 846.20 | 1000.00 | 84.62 |
| PFNA_2 | 463.0 / 219.0 | 2.63 | 914.04 | 1000.00 | 91.40 |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 894.04 | 1010.00 | 88.52 |
| PFOS_2 | 499.0 / 99.0 | 2.63 | 907.71 | 1010.00 | 89.87 |
| PFDA_1 | 513.0 / 469.0 | 2.98 | 874.74 | 1000.00 | 87.47 |
| PFDA_2 | 513.0 / 219.0 | 2.98 | 1005.29 | 1000.00 | 100.53 |
| PFUnA_1 | 563.0 / 519.0 | 3.30 | 919.48 | 1000.00 | 91.95 |
| PFUnA_2 | 563.0 / 269.0 | 3.30 | 971.02 | 1000.00 | 97.10 |
| PFDoA_1 | 613.0 / 569.0 | 3.60 | 958.58 | 1000.00 | 95.86 |
| PFDoA_2 | 613.0 / 319.0 | 3.59 | 957.25 | 1000.00 | 95.72 |
| PFTrDA_1 | 663.0 / 619.0 | 3.85 | 970.92 | 1000.00 | 97.09 |
| PFTrDA_2 | 663.0 / 169.0 | 3.85 | 979.69 | 1000.00 | 97.97 |
| PFTeDA_1 | 713.0 / 669.0 | 4.08 | 912.65 | 1000.00 | 91.27 |
| PFTeDA_2 | 713.0 / 169.0 | 4.08 | 960.21 | 1000.00 | 96.02 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 963.86 | 1000.00 | 96.39 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.12 | 1002.70 | 1000.00 | 100.27 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 887.10 | 1000.00 | 88.71 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.30 | 608.92 | 1000.00 | 60.89 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 1299.18 | 1000.00 | 129.92 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 1285.56 | 1000.00 | 128.56 |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 882.67 | 1000.00 | 88.27 |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 917.59 | 1000.00 | 91.76 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 853.87 | 1000.00 | 85.39 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.83 | 751.84 | 1000.00 | 75.18 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.46 | 794.43 | 1000.00 | 79.44 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.46 | 702.31 | 1000.00 | 70.23 |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 34 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:13:05 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|----------------|----------------|------|--------------|---------------------|--------------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 2809.46 | 2500.00 | 112.38 |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 2712.13 | 2500.00 | 108.49 |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 2633.67 | 2525.00 | 104.30 |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 2485.41 | 2525.00 | 98.43 |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 2688.49 | 2500.00 | 107.54 |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 2996.31 | 2500.00 | 119.85 |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 2609.84 | 2525.00 | 103.36 |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 2459.58 | 2525.00 | 97.41 |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 2336.57 | 2500.00 | 93.46 |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 2280.98 | 2500.00 | 91.24 |
| PFNA_1 | 463.0 / 419.0 | 2.62 | 2390.07 | 2500.00 | 95.60 |
| PFNA_2 | 463.0 / 219.0 | 2.62 | 2314.69 | 2500.00 | 92.59 |
| PFOS_1 | 499.0 / 80.0 | 2.61 | 2404.22 | 2525.00 | 95.22 |
| PFOS_2 | 499.0 / 99.0 | 2.61 | 2363.99 | 2525.00 | 93.62 |
| PFDA_1 | 513.0 / 469.0 | 2.97 | 2543.17 | 2500.00 | 101.73 |
| PFDA_2 | 513.0 / 219.0 | 2.97 | 2538.66 | 2500.00 | 101.55 |
| PFUnA_1 | 563.0 / 519.0 | 3.29 | 2403.81 | 2500.00 | 96.15 |
| PFUnA_2 | 563.0 / 269.0 | 3.29 | 2533.07 | 2500.00 | 101.32 |
| PFDoA_1 | 613.0 / 569.0 | 3.58 | 2453.48 | 2500.00 | 98.14 |
| PFDoA_2 | 613.0 / 319.0 | 3.58 | 2676.38 | 2500.00 | 107.06 |
| PFTrDA_1 | 663.0 / 619.0 | 3.84 | 2732.88 | 2500.00 | 109.32 |
| PFTrDA_2 | 663.0 / 169.0 | 3.84 | 2661.89 | 2500.00 | 106.48 |
| PFTeDA_1 | 713.0 / 669.0 | 4.07 | 2626.76 | 2500.00 | 105.07 |
| PFTeDA_2 | 713.0 / 169.0 | 4.07 | 2634.20 | 2500.00 | 105.37 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 2643.49 | 2500.00 | 105.74 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.11 | 2848.13 | 2500.00 | 113.93 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.28 | 2397.95 | 2500.00 | 95.92 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.29 | 1581.10 | 2500.00 | 63.24 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.66 | 3135.23 | 2500.00 | 125.41 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 3240.46 | 2500.00 | 129.62 |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 2443.54 | 2500.00 | 97.74 |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 2365.11 | 2500.00 | 94.60 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.82 | 2234.78 | 2500.00 | 89.39 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.82 | 2058.11 | 2500.00 | 82.32 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.45 | 2160.87 | 2500.00 | 86.43 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.45 | 2247.76 | 2500.00 | 89.91 |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 38 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:54:59 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|----------------|----------------|------|--------------|---------------------|--------------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 987.83 | 1000.00 | 98.78 |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 966.88 | 1000.00 | 96.69 |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 977.40 | 1010.00 | 96.77 |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 979.57 | 1010.00 | 96.99 |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 982.56 | 1000.00 | 98.26 |
| PFHpA_2 | 363.0 / 169.0 | 1.89 | 922.53 | 1000.00 | 92.25 |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 922.52 | 1010.00 | 91.34 |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 946.21 | 1010.00 | 93.68 |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 965.82 | 1000.00 | 96.58 |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 938.42 | 1000.00 | 93.84 |
| PFNA_1 | 463.0 / 419.0 | 2.62 | 916.86 | 1000.00 | 91.69 |
| PFNA_2 | 463.0 / 219.0 | 2.62 | 898.83 | 1000.00 | 89.88 |
| PFOS_1 | 499.0 / 80.0 | 2.61 | 929.20 | 1010.00 | 92.00 |
| PFOS_2 | 499.0 / 99.0 | 2.61 | 1014.45 | 1010.00 | 100.44 |
| PFDA_1 | 513.0 / 469.0 | 2.97 | 963.37 | 1000.00 | 96.34 |
| PFDA_2 | 513.0 / 219.0 | 2.97 | 998.84 | 1000.00 | 99.88 |
| PFUnA_1 | 563.0 / 519.0 | 3.29 | 946.85 | 1000.00 | 94.68 |
| PFUnA_2 | 563.0 / 269.0 | 3.29 | 1043.00 | 1000.00 | 104.30 |
| PFDoA_1 | 613.0 / 569.0 | 3.58 | 1008.65 | 1000.00 | 100.86 |
| PFDoA_2 | 613.0 / 319.0 | 3.58 | 913.89 | 1000.00 | 91.39 |
| PFTrDA_1 | 663.0 / 619.0 | 3.84 | 955.02 | 1000.00 | 95.50 |
| PFTrDA_2 | 663.0 / 169.0 | 3.84 | 991.96 | 1000.00 | 99.20 |
| PFTeDA_1 | 713.0 / 669.0 | 4.07 | 923.52 | 1000.00 | 92.35 |
| PFTeDA_2 | 713.0 / 169.0 | 4.07 | 1003.84 | 1000.00 | 100.38 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 887.88 | 1000.00 | 88.79 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.11 | 1006.85 | 1000.00 | 100.68 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.28 | 936.19 | 1000.00 | 93.62 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.28 | 755.45 | 1000.00 | 75.54 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 1209.17 | 1000.00 | 120.92 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 1201.74 | 1000.00 | 120.17 |
| ADONA_1 | 377.0 / 251.0 | 1.92 | 959.72 | 1000.00 | 95.97 |
| ADONA_2 | 377.0 / 85.0 | 1.92 | 1021.90 | 1000.00 | 102.19 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.82 | 937.85 | 1000.00 | 93.79 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.82 | 942.44 | 1000.00 | 94.24 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.45 | 942.01 | 1000.00 | 94.20 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.45 | 771.26 | 1000.00 | 77.13 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 9:25:12 AM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|----------------|----------------|------|--------------|---------------------|--------------|
| PFBS_1 | 298.9 / 80.0 | 1.35 | 956.83 | 1000.00 | 95.68 |
| PFBS_2 | 298.9 / 99.0 | 1.35 | 1053.02 | 1000.00 | 105.30 |
| PFHxA_1 | 313.0 / 269.0 | 1.62 | 1115.11 | 1010.00 | 110.41 |
| PFHxA_2 | 313.0 / 119.0 | 1.62 | 1051.47 | 1010.00 | 104.11 |
| PFHpA_1 | 363.0 / 319.0 | 1.96 | 964.32 | 1000.00 | 96.43 |
| PFHpA_2 | 363.0 / 169.0 | 1.96 | 1002.38 | 1000.00 | 100.24 |
| PFHxS_1 | 399.0 / 80.0 | 1.97 | 966.67 | 1010.00 | 95.71 |
| PFHxS_2 | 399.0 / 99.0 | 1.97 | 935.26 | 1010.00 | 92.60 |
| PFOA_1 | 413.0 / 369.0 | 2.33 | 876.58 | 1000.00 | 87.66 |
| PFOA_2 | 413.0 / 169.0 | 2.33 | 915.79 | 1000.00 | 91.58 |
| PFNA_1 | 463.0 / 419.0 | 2.71 | 1009.22 | 1000.00 | 100.92 |
| PFNA_2 | 463.0 / 219.0 | 2.71 | 1025.62 | 1000.00 | 102.56 |
| PFOS_1 | 499.0 / 80.0 | 2.70 | 871.88 | 1010.00 | 86.33 |
| PFOS_2 | 499.0 / 99.0 | 2.70 | 933.91 | 1010.00 | 92.47 |
| PFDA_1 | 513.0 / 469.0 | 3.07 | 853.35 | 1000.00 | 85.33 |
| PFDA_2 | 513.0 / 219.0 | 3.07 | 1019.43 | 1000.00 | 101.94 |
| PFUnA_1 | 563.0 / 519.0 | 3.40 | 958.35 | 1000.00 | 95.84 |
| PFUnA_2 | 563.0 / 269.0 | 3.39 | 982.09 | 1000.00 | 98.21 |
| PFDoA_1 | 613.0 / 569.0 | 3.69 | 955.51 | 1000.00 | 95.55 |
| PFDoA_2 | 613.0 / 319.0 | 3.69 | 996.37 | 1000.00 | 99.64 |
| PFTrDA_1 | 663.0 / 619.0 | 3.95 | 928.91 | 1000.00 | 92.89 |
| PFTrDA_2 | 663.0 / 169.0 | 3.95 | 1011.23 | 1000.00 | 101.12 |
| PFTeDA_1 | 713.0 / 669.0 | 4.19 | 959.16 | 1000.00 | 95.92 |
| PFTeDA_2 | 713.0 / 169.0 | 4.19 | 960.06 | 1000.00 | 96.01 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.21 | 948.71 | 1000.00 | 94.87 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.21 | 954.08 | 1000.00 | 95.41 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.39 | 912.39 | 1000.00 | 91.24 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.38 | 842.39 | 1000.00 | 84.24 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.71 | 896.10 | 1000.00 | 89.61 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.71 | 726.90 | 1000.00 | 72.69 |
| ADONA_1 | 377.0 / 251.0 | 1.99 | 862.19 | 1000.00 | 86.22 |
| ADONA_2 | 377.0 / 85.0 | 1.99 | 725.43 | 1000.00 | 72.54 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.91 | 973.40 | 1000.00 | 97.34 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.91 | 966.26 | 1000.00 | 96.63 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.55 | 819.92 | 1000.00 | 81.99 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.55 | 950.59 | 1000.00 | 95.06 |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 6 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:23:40 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|----------------|----------------|------|--------------|---------------------|--------------|
| PFBS_1 | 298.9 / 80.0 | 1.34 | 1010.21 | 1000.00 | 101.02 |
| PFBS_2 | 298.9 / 99.0 | 1.34 | 1083.89 | 1000.00 | 108.39 |
| PFHxA_1 | 313.0 / 269.0 | 1.59 | 975.49 | 1010.00 | 96.58 |
| PFHxA_2 | 313.0 / 119.0 | 1.59 | 931.06 | 1010.00 | 92.18 |
| PFHpA_1 | 363.0 / 319.0 | 1.93 | 1003.82 | 1000.00 | 100.38 |
| PFHpA_2 | 363.0 / 169.0 | 1.92 | 856.17 | 1000.00 | 85.62 |
| PFHxS_1 | 399.0 / 80.0 | 1.94 | 862.38 | 1010.00 | 85.38 |
| PFHxS_2 | 399.0 / 99.0 | 1.94 | 855.38 | 1010.00 | 84.69 |
| PFOA_1 | 413.0 / 369.0 | 2.29 | 870.28 | 1000.00 | 87.03 |
| PFOA_2 | 413.0 / 169.0 | 2.29 | 879.27 | 1000.00 | 87.93 |
| PFNA_1 | 463.0 / 419.0 | 2.67 | 850.18 | 1000.00 | 85.02 |
| PFNA_2 | 463.0 / 219.0 | 2.67 | 912.33 | 1000.00 | 91.23 |
| PFOS_1 | 499.0 / 80.0 | 2.66 | 939.46 | 1010.00 | 93.02 |
| PFOS_2 | 499.0 / 99.0 | 2.66 | 938.34 | 1010.00 | 92.90 |
| PFDA_1 | 513.0 / 469.0 | 3.02 | 917.17 | 1000.00 | 91.72 |
| PFDA_2 | 513.0 / 219.0 | 3.02 | 946.06 | 1000.00 | 94.61 |
| PFUnA_1 | 563.0 / 519.0 | 3.34 | 839.19 | 1000.00 | 83.92 |
| PFUnA_2 | 563.0 / 269.0 | 3.34 | 879.45 | 1000.00 | 87.95 |
| PFDoA_1 | 613.0 / 569.0 | 3.63 | 1003.29 | 1000.00 | 100.33 |
| PFDoA_2 | 613.0 / 319.0 | 3.63 | 967.03 | 1000.00 | 96.70 |
| PFTrDA_1 | 663.0 / 619.0 | 3.89 | 986.55 | 1000.00 | 98.66 |
| PFTrDA_2 | 663.0 / 169.0 | 3.89 | 1022.06 | 1000.00 | 102.21 |
| PFTeDA_1 | 713.0 / 669.0 | 4.12 | 930.82 | 1000.00 | 93.08 |
| PFTeDA_2 | 713.0 / 169.0 | 4.12 | 953.10 | 1000.00 | 95.31 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.16 | 896.85 | 1000.00 | 89.69 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.16 | 858.84 | 1000.00 | 85.88 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.33 | 947.15 | 1000.00 | 94.71 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.33 | 963.11 | 1000.00 | 96.31 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.68 | 1195.61 | 1000.00 | 119.56 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.68 | 1262.43 | 1000.00 | 126.24 |
| ADONA_1 | 377.0 / 251.0 | 1.96 | 954.39 | 1000.00 | 95.44 |
| ADONA_2 | 377.0 / 85.0 | 1.96 | 999.88 | 1000.00 | 99.99 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.87 | 930.68 | 1000.00 | 93.07 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.86 | 1027.40 | 1000.00 | 102.74 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.49 | 912.73 | 1000.00 | 91.27 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.49 | 563.76 | 1000.00 | 56.38 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 16 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:08:37 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|----------------|----------------|------|--------------|---------------------|--------------|
| PFBS_1 | 298.9 / 80.0 | 1.33 | 2572.84 | 2500.00 | 102.91 |
| PFBS_2 | 298.9 / 99.0 | 1.33 | 2718.59 | 2500.00 | 108.74 |
| PFHxA_1 | 313.0 / 269.0 | 1.58 | 2593.17 | 2525.00 | 102.70 |
| PFHxA_2 | 313.0 / 119.0 | 1.58 | 2451.54 | 2525.00 | 97.09 |
| PFHpA_1 | 363.0 / 319.0 | 1.91 | 2695.35 | 2500.00 | 107.81 |
| PFHpA_2 | 363.0 / 169.0 | 1.91 | 2645.61 | 2500.00 | 105.82 |
| PFHxS_1 | 399.0 / 80.0 | 1.92 | 2347.04 | 2525.00 | 92.95 |
| PFHxS_2 | 399.0 / 99.0 | 1.92 | 2380.31 | 2525.00 | 94.27 |
| PFOA_1 | 413.0 / 369.0 | 2.27 | 2279.75 | 2500.00 | 91.19 |
| PFOA_2 | 413.0 / 169.0 | 2.27 | 2237.81 | 2500.00 | 89.51 |
| PFNA_1 | 463.0 / 419.0 | 2.64 | 2369.86 | 2500.00 | 94.79 |
| PFNA_2 | 463.0 / 219.0 | 2.64 | 2377.15 | 2500.00 | 95.09 |
| PFOS_1 | 499.0 / 80.0 | 2.63 | 2625.91 | 2525.00 | 104.00 |
| PFOS_2 | 499.0 / 99.0 | 2.63 | 2773.20 | 2525.00 | 109.83 |
| PFDA_1 | 513.0 / 469.0 | 3.00 | 2490.91 | 2500.00 | 99.64 |
| PFDA_2 | 513.0 / 219.0 | 3.00 | 2509.21 | 2500.00 | 100.37 |
| PFUnA_1 | 563.0 / 519.0 | 3.32 | 2316.16 | 2500.00 | 92.65 |
| PFUnA_2 | 563.0 / 269.0 | 3.32 | 2480.65 | 2500.00 | 99.23 |
| PFDoA_1 | 613.0 / 569.0 | 3.61 | 2456.74 | 2500.00 | 98.27 |
| PFDoA_2 | 613.0 / 319.0 | 3.61 | 2562.41 | 2500.00 | 102.50 |
| PFTrDA_1 | 663.0 / 619.0 | 3.86 | 2599.67 | 2500.00 | 103.99 |
| PFTrDA_2 | 663.0 / 169.0 | 3.86 | 2538.41 | 2500.00 | 101.54 |
| PFTeDA_1 | 713.0 / 669.0 | 4.10 | 2545.62 | 2500.00 | 101.82 |
| PFTeDA_2 | 713.0 / 169.0 | 4.10 | 2565.84 | 2500.00 | 102.63 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.14 | 2116.01 | 2500.00 | 84.64 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.14 | 2263.02 | 2500.00 | 90.52 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.31 | 2383.04 | 2500.00 | 95.32 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.31 | 2652.89 | 2500.00 | 106.12 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.67 | 2821.74 | 2500.00 | 112.87 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.67 | 2545.56 | 2500.00 | 101.82 |
| ADONA_1 | 377.0 / 251.0 | 1.94 | 2268.87 | 2500.00 | 90.75 |
| ADONA_2 | 377.0 / 85.0 | 1.94 | 2212.18 | 2500.00 | 88.49 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.84 | 2196.25 | 2500.00 | 87.85 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.85 | 2432.32 | 2500.00 | 97.29 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.47 | 2072.72 | 2500.00 | 82.91 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.47 | 1998.08 | 2500.00 | 79.92 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 3:21:53 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|----------------|----------------|------|--------------|---------------------|--------------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 971.98 | 1000.00 | 97.20 |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 999.53 | 1000.00 | 99.95 |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 938.46 | 1010.00 | 92.92 |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 843.68 | 1010.00 | 83.53 |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 1005.37 | 1000.00 | 100.54 |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 886.21 | 1000.00 | 88.62 |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 1025.63 | 1010.00 | 101.55 |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 1023.60 | 1010.00 | 101.35 |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 973.50 | 1000.00 | 97.35 |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 880.92 | 1000.00 | 88.09 |
| PFNA_1 | 463.0 / 419.0 | 2.61 | 961.89 | 1000.00 | 96.19 |
| PFNA_2 | 463.0 / 219.0 | 2.61 | 972.94 | 1000.00 | 97.29 |
| PFOS_1 | 499.0 / 80.0 | 2.61 | 910.48 | 1010.00 | 90.15 |
| PFOS_2 | 499.0 / 99.0 | 2.61 | 966.18 | 1010.00 | 95.66 |
| PFDA_1 | 513.0 / 469.0 | 2.96 | 942.16 | 1000.00 | 94.22 |
| PFDA_2 | 513.0 / 219.0 | 2.96 | 901.71 | 1000.00 | 90.17 |
| PFUnA_1 | 563.0 / 519.0 | 3.27 | 996.86 | 1000.00 | 99.69 |
| PFUnA_2 | 563.0 / 269.0 | 3.27 | 1053.86 | 1000.00 | 105.39 |
| PFDoA_1 | 613.0 / 569.0 | 3.56 | 958.19 | 1000.00 | 95.82 |
| PFDoA_2 | 613.0 / 319.0 | 3.56 | 924.48 | 1000.00 | 92.45 |
| PFTrDA_1 | 663.0 / 619.0 | 3.82 | 920.89 | 1000.00 | 92.09 |
| PFTrDA_2 | 663.0 / 169.0 | 3.82 | 974.28 | 1000.00 | 97.43 |
| PFTeDA_1 | 713.0 / 669.0 | 4.05 | 961.47 | 1000.00 | 96.15 |
| PFTeDA_2 | 713.0 / 169.0 | 4.05 | 951.38 | 1000.00 | 95.14 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.10 | 1017.51 | 1000.00 | 101.75 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.10 | 1011.22 | 1000.00 | 101.12 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.27 | 982.44 | 1000.00 | 98.24 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.26 | 1013.88 | 1000.00 | 101.39 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.66 | 1037.59 | 1000.00 | 103.76 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 956.93 | 1000.00 | 95.69 |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 904.66 | 1000.00 | 90.47 |
| ADONA_2 | 377.0 / 85.0 | 1.92 | 886.79 | 1000.00 | 88.68 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.81 | 871.78 | 1000.00 | 87.18 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.81 | 969.39 | 1000.00 | 96.94 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.42 | 856.68 | 1000.00 | 85.67 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.43 | 1004.61 | 1000.00 | 100.46 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 10 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 5:06:36 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|----------------|----------------|------|--------------|---------------------|--------------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 2701.50 | 2500.00 | 108.06 |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 2835.97 | 2500.00 | 113.44 |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 2709.26 | 2525.00 | 107.30 |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 2676.42 | 2525.00 | 106.00 |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 2489.66 | 2500.00 | 99.59 |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 2763.90 | 2500.00 | 110.56 |
| PFHxS_1 | 399.0 / 80.0 | 1.91 | 2582.95 | 2525.00 | 102.30 |
| PFHxS_2 | 399.0 / 99.0 | 1.91 | 2555.40 | 2525.00 | 101.20 |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 2282.26 | 2500.00 | 91.29 |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 2223.93 | 2500.00 | 88.96 |
| PFNA_1 | 463.0 / 419.0 | 2.63 | 2282.57 | 2500.00 | 91.30 |
| PFNA_2 | 463.0 / 219.0 | 2.63 | 2355.76 | 2500.00 | 94.23 |
| PFOS_1 | 499.0 / 80.0 | 2.63 | 2395.50 | 2525.00 | 94.87 |
| PFOS_2 | 499.0 / 99.0 | 2.63 | 2386.17 | 2525.00 | 94.50 |
| PFDA_1 | 513.0 / 469.0 | 2.99 | 2426.56 | 2500.00 | 97.06 |
| PFDA_2 | 513.0 / 219.0 | 2.99 | 2396.41 | 2500.00 | 95.86 |
| PFUnA_1 | 563.0 / 519.0 | 3.31 | 2541.02 | 2500.00 | 101.64 |
| PFUnA_2 | 563.0 / 269.0 | 3.31 | 2509.46 | 2500.00 | 100.38 |
| PFDoA_1 | 613.0 / 569.0 | 3.60 | 2419.51 | 2500.00 | 96.78 |
| PFDoA_2 | 613.0 / 319.0 | 3.60 | 2570.58 | 2500.00 | 102.82 |
| PFTrDA_1 | 663.0 / 619.0 | 3.85 | 2535.95 | 2500.00 | 101.44 |
| PFTrDA_2 | 663.0 / 169.0 | 3.85 | 2620.26 | 2500.00 | 104.81 |
| PFTeDA_1 | 713.0 / 669.0 | 4.08 | 2542.60 | 2500.00 | 101.70 |
| PFTeDA_2 | 713.0 / 169.0 | 4.08 | 2556.74 | 2500.00 | 102.27 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.13 | 2229.94 | 2500.00 | 89.20 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.13 | 2235.76 | 2500.00 | 89.43 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.30 | 2536.20 | 2500.00 | 101.45 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.30 | 2156.14 | 2500.00 | 86.25 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.66 | 2776.09 | 2500.00 | 111.04 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 2611.98 | 2500.00 | 104.48 |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 2277.00 | 2500.00 | 91.08 |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 2286.59 | 2500.00 | 91.46 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 2174.70 | 2500.00 | 86.99 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.83 | 2057.82 | 2500.00 | 82.31 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.46 | 2098.54 | 2500.00 | 83.94 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.46 | 2130.06 | 2500.00 | 85.20 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 4 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 6:19:40 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|----------------|----------------|------|--------------|---------------------|--------------|
| PFBS_1 | 298.9 / 80.0 | 1.33 | 1052.45 | 1000.00 | 105.25 |
| PFBS_2 | 298.9 / 99.0 | 1.33 | 1036.58 | 1000.00 | 103.66 |
| PFHxA_1 | 313.0 / 269.0 | 1.58 | 1115.24 | 1010.00 | 110.42 |
| PFHxA_2 | 313.0 / 119.0 | 1.58 | 1048.96 | 1010.00 | 103.86 |
| PFHpA_1 | 363.0 / 319.0 | 1.91 | 1110.35 | 1000.00 | 111.04 |
| PFHpA_2 | 363.0 / 169.0 | 1.91 | 1059.24 | 1000.00 | 105.92 |
| PFHxS_1 | 399.0 / 80.0 | 1.92 | 933.66 | 1010.00 | 92.44 |
| PFHxS_2 | 399.0 / 99.0 | 1.92 | 970.19 | 1010.00 | 96.06 |
| PFOA_1 | 413.0 / 369.0 | 2.28 | 956.91 | 1000.00 | 95.69 |
| PFOA_2 | 413.0 / 169.0 | 2.28 | 904.94 | 1000.00 | 90.49 |
| PFNA_1 | 463.0 / 419.0 | 2.65 | 1018.81 | 1000.00 | 101.88 |
| PFNA_2 | 463.0 / 219.0 | 2.65 | 976.36 | 1000.00 | 97.64 |
| PFOS_1 | 499.0 / 80.0 | 2.64 | 887.14 | 1010.00 | 87.84 |
| PFOS_2 | 499.0 / 99.0 | 2.65 | 952.17 | 1010.00 | 94.27 |
| PFDA_1 | 513.0 / 469.0 | 3.01 | 924.35 | 1000.00 | 92.43 |
| PFDA_2 | 513.0 / 219.0 | 3.00 | 936.91 | 1000.00 | 93.69 |
| PFUnA_1 | 563.0 / 519.0 | 3.33 | 886.62 | 1000.00 | 88.66 |
| PFUnA_2 | 563.0 / 269.0 | 3.33 | 949.89 | 1000.00 | 94.99 |
| PFDoA_1 | 613.0 / 569.0 | 3.62 | 1041.64 | 1000.00 | 104.16 |
| PFDoA_2 | 613.0 / 319.0 | 3.62 | 988.85 | 1000.00 | 98.88 |
| PFTrDA_1 | 663.0 / 619.0 | 3.88 | 977.71 | 1000.00 | 97.77 |
| PFTrDA_2 | 663.0 / 169.0 | 3.88 | 972.20 | 1000.00 | 97.22 |
| PFTeDA_1 | 713.0 / 669.0 | 4.11 | 973.94 | 1000.00 | 97.39 |
| PFTeDA_2 | 713.0 / 169.0 | 4.11 | 1014.97 | 1000.00 | 101.50 |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.15 | 872.70 | 1000.00 | 87.27 |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.15 | 1053.53 | 1000.00 | 105.35 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.32 | 831.46 | 1000.00 | 83.15 |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.31 | 860.78 | 1000.00 | 86.08 |
| HFPO-DA_1 | 285.0 / 169.0 | 1.67 | 998.84 | 1000.00 | 99.88 |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 891.15 | 1000.00 | 89.12 |
| ADONA_1 | 377.0 / 251.0 | 1.94 | 884.88 | 1000.00 | 88.49 |
| ADONA_2 | 377.0 / 85.0 | 1.94 | 862.71 | 1000.00 | 86.27 |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | 2.85 | 968.21 | 1000.00 | 96.82 |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | 2.85 | 923.05 | 1000.00 | 92.31 |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.48 | 936.79 | 1000.00 | 93.68 |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.48 | 914.64 | 1000.00 | 91.46 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD81 ICC | Injection Vial | 9 |
| Sample ID | ICC | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:59:12 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|--------------|----------------|------|--------------|---------------------|--------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1249.28 | 1250.00 | 99.94 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 1204.62 | 1250.00 | 96.37 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.28 | 1213.65 | 1250.00 | 97.09 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 1217.35 | 1250.00 | 97.39 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 1243.93 | 1250.00 | 99.51 |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 1244.43 | 1222.50 | 101.79 |
| 13C9-PFNA | 472.0 / 427.0 | 2.62 | 1245.03 | 1250.00 | 99.60 |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 1240.71 | 1250.00 | 99.26 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.29 | 1284.78 | 1250.00 | 102.78 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 1265.13 | 1250.00 | 101.21 |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 1154.43 | 1162.50 | 99.31 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 1294.75 | 1182.50 | 109.49 |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 1274.03 | 1195.00 | 106.61 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 1166.53 | 1250.00 | 93.32 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 1:12:05 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|--------------|----------------|------|--------------|---------------------|--------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.60 | 1215.04 | 1250.00 | 97.20 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 1263.06 | 1250.00 | 101.04 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 1293.72 | 1250.00 | 103.50 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1239.66 | 1250.00 | 99.17 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1199.86 | 1250.00 | 95.99 |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1188.88 | 1222.50 | 97.25 |
| 13C9-PFNA | 472.0 / 427.0 | 2.63 | 1128.71 | 1250.00 | 90.30 |
| 13C6-PFDA | 519.0 / 474.0 | 2.98 | 1261.81 | 1250.00 | 100.94 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 1229.94 | 1250.00 | 98.40 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.08 | 1218.61 | 1250.00 | 97.49 |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 1066.35 | 1162.50 | 91.73 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 1187.64 | 1182.50 | 100.44 |
| 13C8-PFOS | 507.0 / 99.0 | 2.62 | 1114.12 | 1195.00 | 93.23 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 1069.93 | 1250.00 | 85.59 |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:17:56 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|--------------|----------------|------|--------------|---------------------|--------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1335.70 | 1250.00 | 106.86 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 1363.59 | 1250.00 | 109.09 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 1415.79 | 1250.00 | 113.26 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1461.93 | 1250.00 | 116.95 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1253.65 | 1250.00 | 100.29 |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1467.63 | 1222.50 | 120.05 |
| 13C9-PFNA | 472.0 / 427.0 | 2.62 | 1382.33 | 1250.00 | 110.59 |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 1416.85 | 1250.00 | 113.35 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 1498.55 | 1250.00 | 119.88 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.08 | 1337.22 | 1250.00 | 106.98 |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 1076.38 | 1162.50 | 92.59 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 1199.02 | 1182.50 | 101.40 |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 1181.25 | 1195.00 | 98.85 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 925.10 | 1250.00 | 74.01 |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 34 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:13:05 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|--------------|----------------|------|--------------|---------------------|--------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.58 | 1304.27 | 1250.00 | 104.34 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 1051.24 | 1250.00 | 84.10 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.28 | 1311.29 | 1250.00 | 104.90 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1243.82 | 1250.00 | 99.51 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1155.33 | 1250.00 | 92.43 |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 1279.31 | 1222.50 | 104.65 |
| 13C9-PFNA | 472.0 / 427.0 | 2.61 | 1216.83 | 1250.00 | 97.35 |
| 13C6-PFDA | 519.0 / 474.0 | 2.96 | 1270.06 | 1250.00 | 101.60 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.29 | 1404.97 | 1250.00 | 112.40 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 1231.53 | 1250.00 | 98.52 |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 1015.14 | 1162.50 | 87.32 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 1057.52 | 1182.50 | 89.43 |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 1087.54 | 1195.00 | 91.01 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 967.20 | 1250.00 | 77.38 |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 38 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:54:59 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|--------------|----------------|------|--------------|---------------------|--------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.58 | 1212.38 | 1250.00 | 96.99 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 1323.87 | 1250.00 | 105.91 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.27 | 1416.31 | 1250.00 | 113.30 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 1225.30 | 1250.00 | 98.02 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 1172.99 | 1250.00 | 93.84 |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 1142.17 | 1222.50 | 93.43 |
| 13C9-PFNA | 472.0 / 427.0 | 2.61 | 1412.44 | 1250.00 | 113.00 |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 1249.24 | 1250.00 | 99.94 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.29 | 1344.84 | 1250.00 | 107.59 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 1204.51 | 1250.00 | 96.36 |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 1203.65 | 1162.50 | 103.54 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 1262.66 | 1182.50 | 106.78 |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 1194.83 | 1195.00 | 99.99 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.64 | 875.36 | 1250.00 | 70.03 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 9:25:12 AM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|--------------|----------------|------|--------------|---------------------|--------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.69 | 1162.85 | 1250.00 | 93.03 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.21 | 1230.36 | 1250.00 | 98.43 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.38 | 1294.42 | 1250.00 | 103.55 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.60 | 1164.58 | 1250.00 | 93.17 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.95 | 1240.17 | 1250.00 | 99.21 |
| 13C8-PFOA | 421.0 / 376.0 | 2.32 | 1279.11 | 1222.50 | 104.63 |
| 13C9-PFNA | 472.0 / 427.0 | 2.70 | 1181.00 | 1250.00 | 94.48 |
| 13C6-PFDA | 519.0 / 474.0 | 3.06 | 1362.34 | 1250.00 | 108.99 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.39 | 1260.65 | 1250.00 | 100.85 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.19 | 1199.32 | 1250.00 | 95.95 |
| 13C3-PFBS | 302.0 / 99.0 | 1.34 | 1180.97 | 1162.50 | 101.59 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.96 | 1283.16 | 1182.50 | 108.51 |
| 13C8-PFOS | 507.0 / 99.0 | 2.70 | 1242.36 | 1195.00 | 103.96 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.71 | 1215.34 | 1250.00 | 97.23 |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 6 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:23:40 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|--------------|----------------|------|--------------|---------------------|--------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.63 | 1220.40 | 1250.00 | 97.63 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.16 | 1361.57 | 1250.00 | 108.93 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.33 | 1329.12 | 1250.00 | 106.33 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.58 | 1373.11 | 1250.00 | 109.85 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.92 | 1289.97 | 1250.00 | 103.20 |
| 13C8-PFOA | 421.0 / 376.0 | 2.28 | 1344.17 | 1222.50 | 109.95 |
| 13C9-PFNA | 472.0 / 427.0 | 2.66 | 1307.41 | 1250.00 | 104.59 |
| 13C6-PFDA | 519.0 / 474.0 | 3.01 | 1331.09 | 1250.00 | 106.49 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.34 | 1396.32 | 1250.00 | 111.71 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.12 | 1213.57 | 1250.00 | 97.09 |
| 13C3-PFBS | 302.0 / 99.0 | 1.33 | 1097.80 | 1162.50 | 94.43 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.93 | 1267.16 | 1182.50 | 107.16 |
| 13C8-PFOS | 507.0 / 99.0 | 2.65 | 1160.51 | 1195.00 | 97.11 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.68 | 1006.51 | 1250.00 | 80.52 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 16 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:08:37 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|--------------|----------------|------|--------------|---------------------|--------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.61 | 1253.89 | 1250.00 | 100.31 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.14 | 1352.92 | 1250.00 | 108.23 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.31 | 1350.96 | 1250.00 | 108.08 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 1346.41 | 1250.00 | 107.71 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.90 | 1276.64 | 1250.00 | 102.13 |
| 13C8-PFOA | 421.0 / 376.0 | 2.26 | 1395.83 | 1222.50 | 114.18 |
| 13C9-PFNA | 472.0 / 427.0 | 2.63 | 1382.86 | 1250.00 | 110.63 |
| 13C6-PFDA | 519.0 / 474.0 | 2.99 | 1326.52 | 1250.00 | 106.12 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.32 | 1394.16 | 1250.00 | 111.53 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.09 | 1223.31 | 1250.00 | 97.86 |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 1181.07 | 1162.50 | 101.60 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.91 | 1242.76 | 1182.50 | 105.10 |
| 13C8-PFOS | 507.0 / 99.0 | 2.63 | 1125.52 | 1195.00 | 94.19 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 1090.89 | 1250.00 | 87.27 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 3:21:53 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|--------------|----------------|------|--------------|---------------------|--------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.56 | 1217.07 | 1250.00 | 97.37 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.10 | 1142.27 | 1250.00 | 91.38 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.26 | 1223.86 | 1250.00 | 97.91 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1343.47 | 1250.00 | 107.48 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1189.87 | 1250.00 | 95.19 |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 1228.12 | 1222.50 | 100.46 |
| 13C9-PFNA | 472.0 / 427.0 | 2.60 | 1275.32 | 1250.00 | 102.03 |
| 13C6-PFDA | 519.0 / 474.0 | 2.95 | 1302.20 | 1250.00 | 104.18 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.27 | 1230.63 | 1250.00 | 98.45 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.05 | 1227.83 | 1250.00 | 98.23 |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 1062.51 | 1162.50 | 91.40 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 1105.56 | 1182.50 | 93.49 |
| 13C8-PFOS | 507.0 / 99.0 | 2.60 | 1143.38 | 1195.00 | 95.68 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 1027.39 | 1250.00 | 82.19 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 10 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 5:06:36 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|--------------|----------------|------|--------------|---------------------|--------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.60 | 1370.19 | 1250.00 | 109.62 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.13 | 1224.43 | 1250.00 | 97.95 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 1200.76 | 1250.00 | 96.06 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1305.08 | 1250.00 | 104.41 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1324.28 | 1250.00 | 105.94 |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1398.24 | 1222.50 | 114.38 |
| 13C9-PFNA | 472.0 / 427.0 | 2.63 | 1256.75 | 1250.00 | 100.54 |
| 13C6-PFDA | 519.0 / 474.0 | 2.98 | 1462.55 | 1250.00 | 117.00 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 1410.72 | 1250.00 | 112.86 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.08 | 1330.16 | 1250.00 | 106.41 |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 1027.88 | 1162.50 | 88.42 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 1144.24 | 1182.50 | 96.76 |
| 13C8-PFOS | 507.0 / 99.0 | 2.62 | 1154.74 | 1195.00 | 96.63 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 1133.88 | 1250.00 | 90.71 |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 4 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 6:19:40 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (%) |
|--------------|----------------|------|--------------|---------------------|--------------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.62 | 1121.87 | 1250.00 | 89.75 |
| d3-MeFOSAA | 573.0 / 419.0 | 3.15 | 1311.43 | 1250.00 | 104.91 |
| d5-EtFOSAA | 589.0 / 419.0 | 3.31 | 1300.89 | 1250.00 | 104.07 |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 1190.18 | 1250.00 | 95.21 |
| 13C4-PFHpA | 367.0 / 322.0 | 1.90 | 1189.35 | 1250.00 | 95.15 |
| 13C8-PFOA | 421.0 / 376.0 | 2.27 | 1267.14 | 1222.50 | 103.65 |
| 13C9-PFNA | 472.0 / 427.0 | 2.64 | 1194.88 | 1250.00 | 95.59 |
| 13C6-PFDA | 519.0 / 474.0 | 3.00 | 1298.10 | 1250.00 | 103.85 |
| 13C7-PFUnA | 570.0 / 525.0 | 3.33 | 1288.63 | 1250.00 | 103.09 |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.11 | 1168.69 | 1250.00 | 93.50 |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 1100.48 | 1162.50 | 94.67 |
| 13C3-PFHxS | 402.0 / 99.0 | 1.91 | 1173.54 | 1182.50 | 99.24 |
| 13C8-PFOS | 507.0 / 99.0 | 2.64 | 1225.82 | 1195.00 | 102.58 |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 1096.77 | 1250.00 | 87.74 |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD81 ICC | Injection Vial | 9 |
| Sample ID | ICC | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:59:12 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 1523981.12 | 2781.43 | 14757.6 | False | 13C3-PFBS | 253944.54 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 485619.29 | 2803.90 | 3832.9 | False | 13C3-PFBS | 253944.54 | 1162.50 | PFBS | 0.319 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 2686931.85 | 2764.25 | 2068.7 | False | 13C5-PFHxA | 1091422.65 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 160803.36 | 2546.64 | 1390.9 | False | 13C5-PFHxA | 1091422.65 | 1250.00 | PFHxA | 0.060 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 2100047.98 | 2564.52 | 960.7 | False | 13C4-PFHpA | 1100488.63 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.89 | 72300.44 | 2904.20 | 7719.8 | False | 13C4-PFHpA | 1100488.63 | 1250.00 | PFHpA | 0.034 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 1695318.64 | 2776.22 | 2600.7 | False | 13C3-PFHxS | 217690.01 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 597153.40 | 2668.51 | 2211.5 | False | 13C3-PFHxS | 217690.01 | 1182.50 | PFHxS | 0.352 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 2521272.54 | 2480.21 | 1031.6 | False | 13C8-PFOA | 1286963.42 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 248132.25 | 2431.26 | 1221.0 | False | 13C8-PFOA | 1286963.42 | 1222.50 | PFOA | 0.098 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.62 | 2280980.29 | 2626.47 | 1051.6 | False | 13C9-PFNA | 1130135.07 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.62 | 756741.58 | 2681.43 | 2573.8 | False | 13C9-PFNA | 1130135.07 | 1250.00 | PFNA | 0.332 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 1510947.57 | 2420.82 | 1021.3 | False | 13C8-PFOS | 196571.48 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 293787.05 | 2381.24 | 1171.4 | False | 13C8-PFOS | 196571.48 | 1195.00 | PFOS | 0.194 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.98 | 2353289.02 | 2955.00 | 940.3 | False | 13C6-PFDA | 1043601.38 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.97 | 125751.72 | 2667.78 | 2104.1 | False | 13C6-PFDA | 1043601.38 | 1250.00 | PFDA | 0.053 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.30 | 2264952.11 | 2571.27 | 1237.1 | False | 13C7-PFUnA | 977759.72 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.30 | 137127.75 | 2393.18 | 15278.0 | False | 13C7-PFUnA | 977759.72 | 1250.00 | PFUnA | 0.061 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.59 | 2605434.88 | 2710.30 | 1856.1 | False | 13C2-PFDoA | 1185415.16 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.59 | 299777.49 | 2675.07 | 2302.7 | False | 13C2-PFDoA | 1185415.16 | 1250.00 | PFDoA | 0.115 | 0.117 | ✓ |
| PFTrDA_1 | 663.0 / 619.0 | 3.84 | 2207473.24 | 2733.53 | 2387.9 | False | 13C2-PFTeDA | 1144160.82 | 1250.00 | PFTrDA | | | |
| PFTrDA_2 | 663.0 / 169.0 | 3.84 | 163369.31 | 2759.97 | 2053.8 | False | 13C2-PFTeDA | 1144160.82 | 1250.00 | PFTrDA | 0.074 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | 4.07 | 2418767.52 | 2626.53 | 4293.2 | False | 13C2-PFTeDA | 1144160.82 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | 4.07 | 136758.24 | 2530.14 | 3729.6 | False | 13C2-PFTeDA | 1144160.82 | 1250.00 | PFTeDA | 0.057 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 217998.95 | 2486.45 | 9131.7 | False | d3-MeFOSAA | 140058.67 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.12 | 253804.29 | 2759.53 | 3005.4 | False | d3-MeFOSAA | 140058.67 | 1250.00 | NMeFOSAA | 1.164 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 239868.32 | 2437.67 | 2533.0 | False | d5-EtFOSAA | 124644.83 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.28 | 14596.51 | 2547.86 | 11161.3 | True | d5-EtFOSAA | 124644.83 | 1250.00 | NEtFOSAA | 0.061 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 2626699.78 | 2871.70 | 4341.7 | False | 13C3-HFPO-DA | 434439.97 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 49455.24 | 2522.39 | 1653.9 | False | 13C3-HFPO-DA | 434439.97 | 1250.00 | HFPO-DA | 0.019 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.92 | 5536901.58 | 2586.73 | 13650.3 | False | 13C8-PFOA | 1286963.42 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.92 | 81609.27 | 2370.45 | 7566.9 | False | 13C8-PFOA | 1286963.42 | 1222.50 | ADONA | 0.015 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 2903692.06 | 2494.88 | 2620.0 | False | 13C8-PFOA | 1286963.42 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.83 | 30723.87 | 2461.15 | 1421.7 | False | 13C8-PFOA | 1286963.42 | 1222.50 | 9CI-PF3ONS | 0.011 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.45 | 2185776.40 | 2375.52 | 2336.0 | False | 13C8-PFOA | 1286963.42 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.45 | 13363.54 | 2617.70 | 1432.8 | False | 13C8-PFOA | 1286963.42 | 1222.50 | 11Cl-PF3OUdS | 0.006 | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 1:12:05 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.33 | 685684.79 | 959.66 | 13273.1 | False | 13C3-PFBS | 307940.44 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.33 | 230963.80 | 1022.60 | 2413.4 | False | 13C3-PFBS | 307940.44 | 1162.50 | PFBS | 0.337 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 1219265.49 | 997.99 | 1115.1 | False | 13C5-PFHxA | 1292610.69 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 73741.69 | 946.76 | 1025.5 | False | 13C5-PFHxA | 1292610.69 | 1250.00 | PFHxA | 0.060 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 974395.13 | 1024.84 | 621.6 | False | 13C4-PFHpA | 1234548.06 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 29072.43 | 998.65 | 721.3 | False | 13C4-PFHpA | 1234548.06 | 1250.00 | PFHpA | 0.030 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.91 | 691472.29 | 890.57 | 1242.8 | False | 13C3-PFHxS | 262142.06 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.91 | 247783.67 | 914.50 | 1084.6 | False | 13C3-PFHxS | 262142.06 | 1182.50 | PFHxS | 0.358 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 1131010.47 | 978.20 | 644.3 | False | 13C8-PFOA | 1429953.03 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 102813.63 | 913.23 | 720.3 | False | 13C8-PFOA | 1429953.03 | 1222.50 | PFOA | 0.091 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.63 | 1037941.49 | 999.19 | 690.5 | False | 13C9-PFNA | 1345026.63 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.63 | 331337.52 | 983.64 | 3012.7 | False | 13C9-PFNA | 1345026.63 | 1250.00 | PFNA | 0.319 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 674973.57 | 928.90 | 741.2 | False | 13C8-PFOS | 225669.69 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 151242.53 | 1058.40 | 5452.8 | False | 13C8-PFOS | 225669.69 | 1195.00 | PFOS | 0.224 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.98 | 987182.95 | 939.76 | 646.7 | False | 13C6-PFDA | 1306181.07 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.98 | 61844.47 | 1021.70 | 12900.9 | False | 13C6-PFDA | 1306181.07 | 1250.00 | PFDA | 0.063 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.31 | 1004962.41 | 921.97 | 903.2 | False | 13C7-PFUnA | 1151951.46 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.31 | 65031.51 | 955.84 | 1441.5 | False | 13C7-PFUnA | 1151951.46 | 1250.00 | PFUnA | 0.065 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.60 | 1142088.53 | 970.04 | 1249.8 | False | 13C2-PFDoA | 1418889.04 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.60 | 135436.47 | 987.27 | 1652.9 | False | 13C2-PFDoA | 1418889.04 | 1250.00 | PFDoA | 0.119 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.86 | 979594.78 | 981.11 | 2175.2 | False | 13C2-PFTTeDA | 1356323.60 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.85 | 69811.45 | 984.49 | 1592.7 | False | 13C2-PFTTeDA | 1356323.60 | 1250.00 | PFTTrDA | 0.071 | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | 4.09 | 1124135.67 | 982.59 | 3183.9 | False | 13C2-PFTTeDA | 1356323.60 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | 4.09 | 66957.53 | 1031.84 | 2369.3 | False | 13C2-PFTTeDA | 1356323.60 | 1250.00 | PFTTeDA | 0.060 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.13 | 100054.28 | 874.67 | 613.1 | False | d3-MeFOSAA | 192208.53 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.13 | 116728.73 | 924.90 | 305864.8 | False | d3-MeFOSAA | 192208.53 | 1250.00 | NMeFOSAA | 1.167 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 139472.08 | 987.57 | 1483.2 | False | d5-EtFOSAA | 174531.42 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.29 | 6500.06 | 748.32 | 5311.7 | False | d5-EtFOSAA | 174531.42 | 1250.00 | NEtFOSAA | 0.047 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.66 | 1090281.63 | 1069.67 | 3375.7 | False | 13C3-HFPO-DA | 463425.48 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 17842.85 | 834.23 | 72334.7 | False | 13C3-HFPO-DA | 463425.48 | 1250.00 | HFPO-DA | 0.016 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 2413474.23 | 998.66 | 5261.8 | False | 13C8-PFOA | 1429953.03 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 41236.44 | 1099.07 | 37919.4 | False | 13C8-PFOA | 1429953.03 | 1222.50 | ADONA | 0.017 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 1193417.06 | 933.80 | 1502.0 | False | 13C8-PFOA | 1429953.03 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.82 | 14591.17 | 1081.71 | 495.7 | False | 13C8-PFOA | 1429953.03 | 1222.50 | 9CI-PF3ONS | 0.012 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.46 | 945163.42 | 924.44 | 1667.7 | False | 13C8-PFOA | 1429953.03 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.46 | 6381.92 | 1150.66 | 3951.6 | False | 13C8-PFOA | 1429953.03 | 1222.50 | 11Cl-PF3OUdS | 0.007 | 0.005 | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:17:56 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.33 | 711774.76 | 1050.27 | 6687.8 | False | 13C3-PFBS | 294801.75 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 235742.47 | 1098.68 | 1879.5 | False | 13C3-PFBS | 294801.75 | 1162.50 | PFBS | 0.331 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 1430580.28 | 979.57 | 1097.3 | False | 13C5-PFHxA | 1542527.96 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 74866.67 | 795.89 | 924.5 | False | 13C5-PFHxA | 1542527.96 | 1250.00 | PFHxA | 0.052 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 997361.33 | 990.23 | 632.4 | False | 13C4-PFHpA | 1305242.56 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 30778.35 | 1000.07 | 7798.2 | False | 13C4-PFHpA | 1305242.56 | 1250.00 | PFHpA | 0.031 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.91 | 694942.11 | 938.50 | 1434.0 | False | 13C3-PFHxS | 250999.86 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.91 | 253582.77 | 977.97 | 1616.2 | False | 13C3-PFHxS | 250999.86 | 1182.50 | PFHxS | 0.365 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 1145113.84 | 785.49 | 562.1 | False | 13C8-PFOA | 1786244.50 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 119403.39 | 849.78 | 762.9 | False | 13C8-PFOA | 1786244.50 | 1222.50 | PFOA | 0.104 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.63 | 1022494.31 | 846.20 | 620.3 | False | 13C9-PFNA | 1562273.26 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.63 | 357747.56 | 914.04 | 1940.0 | False | 13C9-PFNA | 1562273.26 | 1250.00 | PFNA | 0.350 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 653831.12 | 894.04 | 755.6 | False | 13C8-PFOS | 226922.98 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.63 | 130772.32 | 907.71 | 2185.4 | False | 13C8-PFOS | 226922.98 | 1195.00 | PFOS | 0.200 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.98 | 1005031.52 | 874.74 | 684.7 | False | 13C6-PFDA | 1420730.58 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.98 | 66232.27 | 1005.29 | 2871.6 | False | 13C6-PFDA | 1420730.58 | 1250.00 | PFDA | 0.066 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.30 | 1183112.98 | 919.48 | 914.1 | False | 13C7-PFUnA | 1359562.15 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.30 | 77954.85 | 971.02 | 2419.3 | False | 13C7-PFUnA | 1359562.15 | 1250.00 | PFUnA | 0.066 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.60 | 1202313.41 | 958.58 | 1180.5 | False | 13C2-PFDoA | 1510927.41 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.59 | 139990.08 | 957.25 | 1469.9 | False | 13C2-PFDoA | 1510927.41 | 1250.00 | PFDoA | 0.116 | 0.117 | ✓ |
| PFTeDA_1 | 663.0 / 619.0 | 3.85 | 1031156.73 | 970.92 | 1739.8 | False | 13C2-PFTeDA | 1441721.12 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 663.0 / 169.0 | 3.85 | 73850.82 | 979.69 | 1486.5 | False | 13C2-PFTeDA | 1441721.12 | 1250.00 | PFTeDA | 0.072 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | 4.08 | 1116081.27 | 912.65 | 3461.7 | False | 13C2-PFTeDA | 1441721.12 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | 4.08 | 66337.54 | 960.21 | 2258.7 | False | 13C2-PFTeDA | 1441721.12 | 1250.00 | PFTeDA | 0.059 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 113527.37 | 963.86 | 3025507.8 | False | d3-MeFOSAA | 196456.21 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.12 | 129345.83 | 1002.70 | 28912.4 | False | d3-MeFOSAA | 196456.21 | 1250.00 | NMeFOSAA | 1.139 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 130963.15 | 887.10 | 4746.8 | False | d5-EtFOSAA | 181600.71 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.30 | 5639.87 | 608.92 | 210.9 | False | d5-EtFOSAA | 181600.71 | 1250.00 | NEtFOSAA | 0.043 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 1146841.72 | 1299.18 | 1262.0 | True | 13C3-HFPO-DA | 405460.74 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 23843.77 | 1285.56 | 1333.7 | True | 13C3-HFPO-DA | 405460.74 | 1250.00 | HFPO-DA | 0.021 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 2673702.13 | 882.67 | 5651.0 | False | 13C8-PFOA | 1786244.50 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 42695.51 | 917.59 | 1877.6 | False | 13C8-PFOA | 1786244.50 | 1222.50 | ADONA | 0.016 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 1360756.76 | 853.87 | 1473.3 | False | 13C8-PFOA | 1786244.50 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.83 | 12388.09 | 751.84 | 463.8 | False | 13C8-PFOA | 1786244.50 | 1222.50 | 9CI-PF3ONS | 0.009 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.46 | 1014640.57 | 794.43 | 1543.6 | False | 13C8-PFOA | 1786244.50 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.46 | 4739.88 | 702.31 | 426.9 | False | 13C8-PFOA | 1786244.50 | 1222.50 | 11Cl-PF3OUdS | 0.005 | 0.005 | ✓ |



| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 34 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:13:05 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 1808931.86 | 2809.46 | 10237.5 | False | 13C3-PFBS | 298537.90 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 553020.20 | 2712.13 | 3115.1 | False | 13C3-PFBS | 298537.90 | 1162.50 | PFBS | 0.306 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 3141030.64 | 2633.67 | 1282.5 | False | 13C5-PFHxA | 1336839.79 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 192342.23 | 2485.41 | 1493.1 | False | 13C5-PFHxA | 1336839.79 | 1250.00 | PFHxA | 0.061 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 2448610.69 | 2688.49 | 863.9 | False | 13C4-PFHpA | 1225292.72 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 82996.32 | 2996.31 | 4288.2 | False | 13C4-PFHpA | 1225292.72 | 1250.00 | PFHpA | 0.034 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 1743196.75 | 2609.84 | 1928.3 | False | 13C3-PFHxS | 237708.23 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 601159.10 | 2459.58 | 1489.5 | False | 13C3-PFHxS | 237708.23 | 1182.50 | PFHxS | 0.345 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 2930017.22 | 2336.57 | 922.2 | False | 13C8-PFOA | 1586043.43 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 286812.30 | 2280.98 | 1301.1 | False | 13C8-PFOA | 1586043.43 | 1222.50 | PFOA | 0.098 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.62 | 2712955.94 | 2390.07 | 943.9 | False | 13C9-PFNA | 1476664.94 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.62 | 853771.29 | 2314.69 | 2798.5 | False | 13C9-PFNA | 1476664.94 | 1250.00 | PFNA | 0.315 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.61 | 1712598.76 | 2404.22 | 994.5 | False | 13C8-PFOS | 224330.18 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.61 | 332861.50 | 2363.99 | 1280.3 | False | 13C8-PFOS | 224330.18 | 1195.00 | PFOS | 0.194 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.97 | 2499146.55 | 2543.17 | 1382.9 | False | 13C6-PFDA | 1282537.68 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.97 | 147184.14 | 2538.66 | 2801.4 | False | 13C6-PFDA | 1282537.68 | 1250.00 | PFDA | 0.059 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.29 | 2785361.07 | 2403.81 | 1373.2 | False | 13C7-PFUnA | 1283668.17 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.29 | 190499.21 | 2533.07 | 2302.4 | False | 13C7-PFUnA | 1283668.17 | 1250.00 | PFUnA | 0.068 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.58 | 2960210.07 | 2453.48 | 1815.3 | False | 13C2-PFDoA | 1485799.70 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.58 | 375922.81 | 2676.38 | 2328.6 | False | 13C2-PFDoA | 1485799.70 | 1250.00 | PFDoA | 0.127 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.84 | 2579228.16 | 2732.88 | 2530.7 | False | 13C2-PFTeDA | 1337154.05 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.84 | 184180.87 | 2661.89 | 2274.1 | False | 13C2-PFTeDA | 1337154.05 | 1250.00 | PFTTrDA | 0.071 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | 4.07 | 2827006.85 | 2626.76 | 3980.5 | False | 13C2-PFTeDA | 1337154.05 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | 4.07 | 166341.51 | 2634.20 | 3473.1 | False | 13C2-PFTeDA | 1337154.05 | 1250.00 | PFTeDA | 0.059 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 270484.79 | 2643.49 | 1217.2 | False | d3-MeFOSAA | 163196.70 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.11 | 305228.20 | 2848.13 | 4520.7 | False | d3-MeFOSAA | 163196.70 | 1250.00 | NMeFOSAA | 1.128 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.28 | 344346.57 | 2397.95 | 16910.8 | False | d5-EtFOSAA | 181848.57 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.29 | 13493.37 | 1581.10 | 9700.0 | False | d5-EtFOSAA | 181848.57 | 1250.00 | NEtFOSAA | 0.039 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.66 | 2840520.15 | 3135.23 | 5852.2 | False | 13C3-HFPO-DA | 431813.36 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 62774.25 | 3240.46 | 5232.3 | True | 13C3-HFPO-DA | 431813.36 | 1250.00 | HFPO-DA | 0.022 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 6449729.61 | 2443.54 | 8846.3 | False | 13C8-PFOA | 1586043.43 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 100344.26 | 2365.11 | 2731.8 | False | 13C8-PFOA | 1586043.43 | 1222.50 | ADONA | 0.016 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.82 | 3202806.56 | 2234.78 | 1831.0 | False | 13C8-PFOA | 1586043.43 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.82 | 31529.50 | 2058.11 | 800.2 | False | 13C8-PFOA | 1586043.43 | 1222.50 | 9CI-PF3ONS | 0.010 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.45 | 2450338.52 | 2160.87 | 2775.4 | False | 13C8-PFOA | 1586043.43 | 1222.50 | 11Cl-pf3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.45 | 14101.11 | 2247.76 | 1000.3 | False | 13C8-PFOA | 1586043.43 | 1222.50 | 11Cl-pf3OUdS | 0.006 | 0.005 | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 38 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:54:59 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 720475.18 | 987.83 | 8464.3 | False | 13C3-PFBS | 315299.79 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 225018.61 | 966.88 | 2364.7 | False | 13C3-PFBS | 315299.79 | 1162.50 | PFBS | 0.312 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 1297934.91 | 977.40 | 1015.5 | False | 13C5-PFHxA | 1402328.86 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 82597.68 | 979.57 | 1086.0 | False | 13C5-PFHxA | 1402328.86 | 1250.00 | PFHxA | 0.064 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 1004832.69 | 982.56 | 583.4 | False | 13C4-PFHpA | 1324682.45 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.89 | 28964.64 | 922.53 | 972.9 | False | 13C4-PFHpA | 1324682.45 | 1250.00 | PFHpA | 0.029 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 688912.42 | 922.52 | 1117.9 | False | 13C3-PFHxS | 252807.57 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 247178.37 | 946.21 | 1240.5 | False | 13C3-PFHxS | 252807.57 | 1182.50 | PFHxS | 0.359 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 1178101.54 | 965.82 | 624.2 | False | 13C8-PFOA | 1507834.19 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 111438.72 | 938.42 | 584.4 | False | 13C8-PFOA | 1507834.19 | 1222.50 | PFOA | 0.095 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.62 | 1081888.05 | 916.86 | 668.2 | False | 13C9-PFNA | 1526759.60 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.62 | 343824.95 | 898.83 | 2186.2 | False | 13C9-PFNA | 1526759.60 | 1250.00 | PFNA | 0.318 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.61 | 656830.55 | 929.20 | 569.3 | False | 13C8-PFOS | 219533.74 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.61 | 141116.52 | 1014.45 | 1493.6 | False | 13C8-PFOS | 219533.74 | 1195.00 | PFOS | 0.215 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.97 | 1017292.40 | 963.37 | 742.3 | False | 13C6-PFDA | 1315448.56 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.97 | 60946.86 | 998.84 | 2224.8 | False | 13C6-PFDA | 1315448.56 | 1250.00 | PFDA | 0.060 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.29 | 1145679.82 | 946.85 | 786.3 | False | 13C7-PFUnA | 1281265.44 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.29 | 78841.76 | 1043.00 | 1583.9 | False | 13C7-PFUnA | 1281265.44 | 1250.00 | PFUnA | 0.069 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.58 | 1203724.58 | 1008.65 | 1110.6 | False | 13C2-PFDoA | 1440170.48 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.58 | 127610.46 | 913.89 | 1512.5 | False | 13C2-PFDoA | 1440170.48 | 1250.00 | PFDoA | 0.106 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.84 | 960437.16 | 955.02 | 1869.8 | False | 13C2-PFTTeDA | 1363728.60 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.84 | 70716.13 | 991.96 | 1505.9 | False | 13C2-PFTTeDA | 1363728.60 | 1250.00 | PFTTrDA | 0.074 | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | 4.07 | 1067290.79 | 923.52 | 2217.3 | False | 13C2-PFTTeDA | 1363728.60 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | 4.07 | 65534.63 | 1003.84 | 2159.8 | False | 13C2-PFTTeDA | 1363728.60 | 1250.00 | PFTTeDA | 0.061 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 97084.50 | 887.88 | 716.0 | False | d3-MeFOSAA | 183510.00 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.11 | 121321.96 | 1006.85 | 2012.6 | False | d3-MeFOSAA | 183510.00 | 1250.00 | NMeFOSAA | 1.250 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.28 | 131879.28 | 936.19 | 2591.2 | False | d5-EtFOSAA | 173696.41 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.28 | 6523.93 | 755.45 | 5506.0 | False | d5-EtFOSAA | 173696.41 | 1250.00 | NEtFOSAA | 0.049 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 1092530.76 | 1209.17 | 3015.1 | False | 13C3-HFPO-DA | 413512.18 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 22761.66 | 1201.74 | 7963.2 | False | 13C3-HFPO-DA | 413512.18 | 1250.00 | HFPO-DA | 0.021 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.92 | 2448255.25 | 959.72 | 6792.2 | False | 13C8-PFOA | 1507834.19 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.92 | 40317.91 | 1021.90 | 5632.7 | False | 13C8-PFOA | 1507834.19 | 1222.50 | ADONA | 0.016 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.82 | 1263983.96 | 937.85 | 1480.2 | False | 13C8-PFOA | 1507834.19 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.82 | 13305.02 | 942.44 | 458.7 | False | 13C8-PFOA | 1507834.19 | 1222.50 | 9CI-PF3ONS | 0.011 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.45 | 1015581.48 | 942.01 | 2210.9 | False | 13C8-PFOA | 1507834.19 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.45 | 4420.68 | 771.26 | 199.9 | False | 13C8-PFOA | 1507834.19 | 1222.50 | 11Cl-PF3OUdS | 0.004 | 0.005 | ✓ |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 9:25:12 AM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.35 | 584141.20 | 956.83 | 7106.6 | False | 13C3-PFBS | 263029.07 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.35 | 202498.72 | 1053.02 | 2281.3 | False | 13C3-PFBS | 263029.07 | 1162.50 | PFBS | 0.347 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.62 | 1076090.99 | 1115.11 | 1099.6 | False | 13C5-PFHxA | 1030782.70 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.62 | 64895.68 | 1051.47 | 1469.3 | False | 13C5-PFHxA | 1030782.70 | 1250.00 | PFHxA | 0.060 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.96 | 807262.15 | 964.32 | 737.4 | False | 13C4-PFHpA | 1083158.75 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.96 | 25596.86 | 1002.38 | 924.5 | False | 13C4-PFHpA | 1083158.75 | 1250.00 | PFHpA | 0.032 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.97 | 621587.20 | 966.67 | 1522.9 | False | 13C3-PFHxS | 218436.80 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.97 | 211121.40 | 935.26 | 1486.6 | False | 13C3-PFHxS | 218436.80 | 1182.50 | PFHxS | 0.340 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.33 | 929716.52 | 876.58 | 643.0 | False | 13C8-PFOA | 1305945.53 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.33 | 94163.77 | 915.79 | 1359.2 | False | 13C8-PFOA | 1305945.53 | 1222.50 | PFOA | 0.101 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.71 | 845942.30 | 1009.22 | 600.1 | False | 13C9-PFNA | 1085409.06 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.71 | 278744.01 | 1025.62 | 7480.2 | False | 13C9-PFNA | 1085409.06 | 1250.00 | PFNA | 0.330 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.70 | 545665.49 | 871.88 | 714.5 | False | 13C8-PFOS | 194080.33 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.70 | 115015.08 | 933.91 | 5552.8 | False | 13C8-PFOS | 194080.33 | 1195.00 | PFOS | 0.211 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 3.07 | 856437.63 | 853.35 | 718.8 | False | 13C6-PFDA | 1238532.25 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 3.07 | 58516.57 | 1019.43 | 4148.6 | False | 13C6-PFDA | 1238532.25 | 1250.00 | PFDA | 0.068 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.40 | 937659.24 | 958.35 | 1006.4 | False | 13C7-PFUnA | 1036943.03 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.39 | 60125.52 | 982.09 | 1406.9 | False | 13C7-PFUnA | 1036943.03 | 1250.00 | PFUnA | 0.064 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.69 | 946072.93 | 955.51 | 1169.5 | False | 13C2-PFDoA | 1192594.11 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.69 | 114848.31 | 996.37 | 1992.8 | False | 13C2-PFDoA | 1192594.11 | 1250.00 | PFDoA | 0.121 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.95 | 804545.78 | 928.91 | 1674.9 | False | 13C2-PFTTeDA | 1172315.87 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.95 | 61952.48 | 1011.23 | 1429.4 | False | 13C2-PFTTeDA | 1172315.87 | 1250.00 | PFTTrDA | 0.077 | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | 4.19 | 950148.59 | 959.16 | 3445.2 | False | 13C2-PFTTeDA | 1172315.87 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | 4.19 | 53933.06 | 960.06 | 2575.4 | False | 13C2-PFTTeDA | 1172315.87 | 1250.00 | PFTTeDA | 0.057 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.21 | 81317.94 | 948.71 | 1006.1 | False | d3-MeFOSAA | 143129.27 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.21 | 89665.54 | 954.08 | 1507.6 | False | d3-MeFOSAA | 143129.27 | 1250.00 | NMeFOSAA | 1.103 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.39 | 100319.11 | 912.39 | 6709.3 | False | d5-EtFOSAA | 135423.21 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.38 | 5608.90 | 842.39 | 17520.8 | False | d5-EtFOSAA | 135423.21 | 1250.00 | NEtFOSAA | 0.056 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.71 | 889992.84 | 896.10 | 2204.0 | False | 13C3-HFPO-DA | 446842.04 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.71 | 15038.88 | 726.90 | 747.9 | False | 13C3-HFPO-DA | 446842.04 | 1250.00 | HFPO-DA | 0.017 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.99 | 1910756.68 | 862.19 | 4869.5 | False | 13C8-PFOA | 1305945.53 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.99 | 24390.89 | 725.43 | 10102.6 | False | 13C8-PFOA | 1305945.53 | 1222.50 | ADONA | 0.013 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.91 | 1137018.76 | 973.40 | 1673.7 | False | 13C8-PFOA | 1305945.53 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.91 | 11831.85 | 966.26 | 5802.8 | False | 13C8-PFOA | 1305945.53 | 1222.50 | 9CI-PF3ONS | 0.010 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.55 | 765612.22 | 819.92 | 2101.6 | False | 13C8-PFOA | 1305945.53 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.55 | 4773.93 | 950.59 | 412.7 | False | 13C8-PFOA | 1305945.53 | 1222.50 | 11Cl-PF3OUdS | 0.006 | 0.005 | ✓ |



| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 6 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:23:40 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.34 | 691026.07 | 1010.21 | 7018.0 | False | 13C3-PFBS | 296396.33 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.34 | 234158.73 | 1083.89 | 2580.7 | False | 13C3-PFBS | 296396.33 | 1162.50 | PFBS | 0.339 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.59 | 1298178.44 | 975.49 | 1015.9 | False | 13C5-PFHxA | 1405082.60 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.59 | 78912.99 | 931.06 | 884.8 | False | 13C5-PFHxA | 1405082.60 | 1250.00 | PFHxA | 0.061 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.93 | 1008144.62 | 1003.82 | 793.2 | False | 13C4-PFHpA | 1302528.28 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.92 | 26568.51 | 856.17 | 28400.3 | False | 13C4-PFHpA | 1302528.28 | 1250.00 | PFHpA | 0.026 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.94 | 669634.74 | 862.38 | 1220.7 | False | 13C3-PFHxS | 261493.96 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.94 | 231326.30 | 855.38 | 1249.4 | False | 13C3-PFHxS | 261493.96 | 1182.50 | PFHxS | 0.345 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.29 | 1121749.15 | 870.28 | 580.0 | False | 13C8-PFOA | 1586605.33 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.29 | 109785.58 | 879.27 | 766.4 | False | 13C8-PFOA | 1586605.33 | 1222.50 | PFOA | 0.098 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.67 | 957769.89 | 850.18 | 700.2 | False | 13C9-PFNA | 1456596.26 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.67 | 332927.58 | 912.33 | 3258.5 | False | 13C9-PFNA | 1456596.26 | 1250.00 | PFNA | 0.348 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.66 | 664634.09 | 939.46 | 675.3 | False | 13C8-PFOS | 219769.19 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.66 | 130844.20 | 938.34 | 2860.1 | False | 13C8-PFOS | 219769.19 | 1195.00 | PFOS | 0.197 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 3.02 | 1032947.41 | 917.17 | 708.2 | False | 13C6-PFDA | 1397823.20 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 3.02 | 61484.84 | 946.06 | 1447448.5 | False | 13C6-PFDA | 1397823.20 | 1250.00 | PFDA | 0.060 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.34 | 1061243.81 | 839.19 | 943.5 | False | 13C7-PFUnA | 1326688.40 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.34 | 68987.81 | 879.45 | 1542.5 | False | 13C7-PFUnA | 1326688.40 | 1250.00 | PFUnA | 0.065 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.63 | 1202186.98 | 1003.29 | 1067.7 | False | 13C2-PFDoA | 1445752.34 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.63 | 135271.32 | 967.03 | 1403.0 | False | 13C2-PFDoA | 1445752.34 | 1250.00 | PFDoA | 0.113 | 0.117 | ✓ |
| PFTeDA_1 | 663.0 / 619.0 | 3.89 | 994792.98 | 986.55 | 1966.6 | False | 13C2-PFTeDA | 1370246.53 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 663.0 / 169.0 | 3.89 | 73175.35 | 1022.06 | 1587.2 | False | 13C2-PFTeDA | 1370246.53 | 1250.00 | PFTeDA | 0.074 | 0.070 | ✓ |
| PFTeDA_3 | 713.0 / 669.0 | 4.12 | 1080209.48 | 930.82 | 3215.7 | False | 13C2-PFTeDA | 1370246.53 | 1250.00 | PFTeDA | | | |
| PFTeDA_4 | 713.0 / 169.0 | 4.12 | 62592.62 | 953.10 | 2407.1 | False | 13C2-PFTeDA | 1370246.53 | 1250.00 | PFTeDA | 0.058 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.16 | 102298.26 | 896.85 | 45880.0 | False | d3-MeFOSAA | 191279.33 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.16 | 107866.61 | 858.84 | 6454.0 | False | d3-MeFOSAA | 191279.33 | 1250.00 | NMeFOSAA | 1.054 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.33 | 128884.69 | 947.15 | 8600.7 | False | d5-EtFOSAA | 167872.09 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.33 | 7852.29 | 963.11 | 1247.4 | False | d5-EtFOSAA | 167872.09 | 1250.00 | NEtFOSAA | 0.061 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.68 | 1118333.39 | 1195.61 | 2925.0 | False | 13C3-HFPO-DA | 427829.98 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.68 | 24715.28 | 1262.43 | 2831.6 | False | 13C3-HFPO-DA | 427829.98 | 1250.00 | HFPO-DA | 0.022 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.96 | 2562238.15 | 954.39 | 15063.9 | False | 13C8-PFOA | 1586605.33 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.96 | 41474.38 | 999.88 | 712.9 | False | 13C8-PFOA | 1586605.33 | 1222.50 | ADONA | 0.016 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.87 | 1319645.22 | 930.68 | 2247.2 | False | 13C8-PFOA | 1586605.33 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.86 | 15335.84 | 1027.40 | 534.7 | False | 13C8-PFOA | 1586605.33 | 1222.50 | 9CI-PF3ONS | 0.012 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.49 | 1035428.94 | 912.73 | 1973.1 | False | 13C8-PFOA | 1586605.33 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.49 | 3322.94 | 563.76 | 288.9 | False | 13C8-PFOA | 1586605.33 | 1222.50 | 11Cl-PF3OUdS | 0.003 | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 16 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:08:37 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|------------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.33 | 1724442.09 | 2572.84 | 15632.1 | False | 13C3-PFBS | 309646.83 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.33 | 574903.77 | 2718.59 | 4207.5 | False | 13C3-PFBS | 309646.83 | 1162.50 | PFBS | 0.333 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.58 | 3033422.50 | 2593.17 | 1764.6 | False | 13C5-PFHxA | 1310463.36 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.58 | 186042.55 | 2451.54 | 1951.8 | False | 13C5-PFHxA | 1310463.36 | 1250.00 | PFHxA | 0.061 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.91 | 2456334.29 | 2695.35 | 1069.8 | False | 13C4-PFHpA | 1226099.07 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.91 | 73539.72 | 2645.61 | 2684.7 | False | 13C4-PFHpA | 1226099.07 | 1250.00 | PFHpA | 0.030 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.92 | 1647514.13 | 2347.04 | 2083.2 | False | 13C3-PFHxS | 249034.05 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.92 | 609566.47 | 2380.31 | 1768.9 | False | 13C3-PFHxS | 249034.05 | 1182.50 | PFHxS | 0.370 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.27 | 2825785.85 | 2279.75 | 913.9 | False | 13C8-PFOA | 1567109.78 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.27 | 278000.42 | 2237.81 | 1385.5 | False | 13C8-PFOA | 1567109.78 | 1222.50 | PFOA | 0.098 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.64 | 2725420.87 | 2369.86 | 916.5 | False | 13C9-PFNA | 1496054.09 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.64 | 888273.87 | 2377.15 | 2598.0 | False | 13C9-PFNA | 1496054.09 | 1250.00 | PFNA | 0.326 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.63 | 1724510.24 | 2625.91 | 986.8 | False | 13C8-PFOS | 206973.97 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.63 | 359889.37 | 2773.20 | 1174.8 | False | 13C8-PFOS | 206973.97 | 1195.00 | PFOS | 0.209 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 3.00 | 2603931.81 | 2490.91 | 908.7 | False | 13C6-PFDA | 1363513.07 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 3.00 | 154692.41 | 2509.21 | 2140.1 | False | 13C6-PFDA | 1363513.07 | 1250.00 | PFDA | 0.059 | 0.058 | ✓ |
| PFOA_1 | 563.0 / 519.0 | 3.32 | 2713870.83 | 2316.16 | 1294.9 | False | 13C7-PFOA | 1296577.13 | 1250.00 | PFOA | | | |
| PFOA_2 | 563.0 / 269.0 | 3.32 | 188452.48 | 2480.65 | 2877.3 | False | 13C7-PFOA | 1296577.13 | 1250.00 | PFOA | 0.069 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.61 | 2900573.13 | 2456.74 | 1460.5 | False | 13C2-PFDoA | 1453962.70 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.61 | 352410.79 | 2562.41 | 2222.3 | False | 13C2-PFDoA | 1453962.70 | 1250.00 | PFDoA | 0.121 | 0.117 | ✓ |
| PFTeDA_1 | 663.0 / 619.0 | 3.86 | 2483775.69 | 2599.67 | 2395.7 | False | 13C2-PFTeDA | 1351982.28 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 663.0 / 169.0 | 3.86 | 177636.91 | 2538.41 | 1898.7 | False | 13C2-PFTeDA | 1351982.28 | 1250.00 | PFTeDA | 0.072 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | 4.10 | 2772592.24 | 2545.62 | 3008.0 | False | 13C2-PFTeDA | 1351982.28 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | 4.10 | 163858.48 | 2565.84 | 2578.1 | False | 13C2-PFTeDA | 1351982.28 | 1250.00 | PFTeDA | 0.059 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.14 | 245127.44 | 2116.01 | 12825.5 | False | d3-MeFOSAA | 185929.08 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.14 | 276301.88 | 2263.02 | 49172.7 | False | d3-MeFOSAA | 185929.08 | 1250.00 | NMeFOSAA | 1.127 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.31 | 311066.68 | 2383.04 | 2405.9 | False | d5-EtFOSAA | 165283.55 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.31 | 201255.92 | 2652.89 | 1282677.8 | False | d5-EtFOSAA | 165283.55 | 1250.00 | NEtFOSAA | 0.065 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.67 | 2622055.51 | 2821.74 | 4737.7 | False | 13C3-HFPO-DA | 441046.33 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.67 | 50658.04 | 2545.56 | 1390062.1 | False | 13C3-HFPO-DA | 441046.33 | 1250.00 | HFPO-DA | 0.019 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.94 | 5922087.50 | 2268.87 | 13219.7 | False | 13C8-PFOA | 1567109.78 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.94 | 92629.20 | 2212.18 | 31585896.6 | False | 13C8-PFOA | 1567109.78 | 1222.50 | ADONA | 0.016 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.84 | 3109580.60 | 2196.25 | 2437.1 | False | 13C8-PFOA | 1567109.78 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.85 | 36964.16 | 2432.32 | 679.1 | False | 13C8-PFOA | 1567109.78 | 1222.50 | 9CI-PF3ONS | 0.012 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.47 | 2322319.10 | 2072.72 | 2594.1 | False | 13C8-PFOA | 1567109.78 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.47 | 12353.65 | 1998.08 | 698.3 | False | 13C8-PFOA | 1567109.78 | 1222.50 | 11Cl-PF3OUdS | 0.005 | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 3:21:53 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 663257.96 | 971.98 | 6258.2 | False | 13C3-PFBS | 294490.62 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 216442.34 | 999.53 | 2720.5 | False | 13C3-PFBS | 294490.62 | 1162.50 | PFBS | 0.326 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 1294869.38 | 938.46 | 971.9 | False | 13C5-PFHxA | 1451516.44 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 74363.69 | 843.68 | 1230.0 | False | 13C5-PFHxA | 1451516.44 | 1250.00 | PFHxA | 0.057 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 983273.25 | 1005.37 | 615.8 | False | 13C4-PFHpA | 1268538.72 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 26718.09 | 886.21 | 2178.5 | False | 13C4-PFHpA | 1268538.72 | 1250.00 | PFHpA | 0.027 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 704181.13 | 1025.63 | 1441.3 | False | 13C3-PFHxS | 234208.33 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 247572.07 | 1023.60 | 1064.7 | False | 13C3-PFHxS | 234208.33 | 1182.50 | PFHxS | 0.352 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 1204998.29 | 973.50 | 695.8 | False | 13C8-PFOA | 1530569.42 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 106109.42 | 880.92 | 623.6 | False | 13C8-PFOA | 1530569.42 | 1222.50 | PFOA | 0.088 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.61 | 1083906.43 | 961.89 | 637.5 | False | 13C9-PFNA | 1458593.50 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.61 | 355423.17 | 972.94 | 2764.1 | False | 13C9-PFNA | 1458593.50 | 1250.00 | PFNA | 0.328 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.61 | 651944.53 | 910.48 | 614.1 | False | 13C8-PFOS | 222278.42 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.61 | 136195.52 | 966.18 | 3842.9 | False | 13C8-PFOS | 222278.42 | 1195.00 | PFOS | 0.209 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.96 | 1056353.20 | 942.16 | 737.0 | False | 13C6-PFDA | 1394413.77 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.96 | 58586.44 | 901.71 | 1334.4 | False | 13C6-PFDA | 1394413.77 | 1250.00 | PFDA | 0.055 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.27 | 1118324.93 | 996.86 | 850.8 | False | 13C7-PFUnA | 1192290.11 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.27 | 74121.87 | 1053.86 | 1268.1 | False | 13C7-PFUnA | 1192290.11 | 1250.00 | PFUnA | 0.066 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.56 | 1169439.94 | 958.19 | 1068.7 | False | 13C2-PFDoA | 1470192.11 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.56 | 131722.18 | 924.48 | 1583.0 | False | 13C2-PFDoA | 1470192.11 | 1250.00 | PFDoA | 0.113 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.82 | 962361.15 | 920.89 | 1664.4 | False | 13C2-PFTTeDA | 1413643.46 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.82 | 72019.49 | 974.28 | 1604.9 | False | 13C2-PFTTeDA | 1413643.46 | 1250.00 | PFTTrDA | 0.075 | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | 4.05 | 1148296.49 | 961.47 | 2290.8 | False | 13C2-PFTTeDA | 1413643.46 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | 4.05 | 64460.77 | 951.38 | 2484.1 | False | 13C2-PFTTeDA | 1413643.46 | 1250.00 | PFTTeDA | 0.056 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.10 | 102346.97 | 1017.51 | 3777.2 | False | d3-MeFOSAA | 167134.98 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.10 | 110975.85 | 1011.22 | 48023.8 | False | d3-MeFOSAA | 167134.98 | 1250.00 | NMeFOSAA | 1.084 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.27 | 126124.98 | 982.44 | 2253.8 | False | d5-EtFOSAA | 158620.29 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.26 | 7776.91 | 1013.88 | 6517.1 | False | d5-EtFOSAA | 158620.29 | 1250.00 | NEtFOSAA | 0.062 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.66 | 1054061.06 | 1037.59 | 2983.7 | False | 13C3-HFPO-DA | 461088.93 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 20303.44 | 956.93 | 92183.0 | False | 13C3-HFPO-DA | 461088.93 | 1250.00 | HFPO-DA | 0.019 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 2346432.53 | 904.66 | 4563.2 | False | 13C8-PFOA | 1530569.42 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.92 | 35302.22 | 886.79 | 218171.5 | False | 13C8-PFOA | 1530569.42 | 1222.50 | ADONA | 0.015 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.81 | 1190945.98 | 871.78 | 1172.0 | False | 13C8-PFOA | 1530569.42 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.81 | 13914.44 | 969.39 | 626.6 | False | 13C8-PFOA | 1530569.42 | 1222.50 | 9CI-PF3ONS | 0.012 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.42 | 937528.28 | 856.68 | 1684.7 | False | 13C8-PFOA | 1530569.42 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.43 | 5928.76 | 1004.61 | 863.5 | False | 13C8-PFOA | 1530569.42 | 1222.50 | 11Cl-PF3OUdS | 0.006 | 0.005 | ✓ |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 10 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 5:06:36 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 1669362.71 | 2701.50 | 12385.5 | False | 13C3-PFBS | 286063.96 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 553027.89 | 2835.97 | 2948.6 | False | 13C3-PFBS | 286063.96 | 1162.50 | PFBS | 0.331 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 3190774.49 | 2709.26 | 1379.7 | False | 13C5-PFHxA | 1321462.64 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 204373.88 | 2676.42 | 1640.1 | False | 13C5-PFHxA | 1321462.64 | 1250.00 | PFHxA | 0.064 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.90 | 2452967.60 | 2489.66 | 973.6 | False | 13C4-PFHpA | 1323149.32 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.90 | 82822.75 | 2763.90 | 3984.8 | False | 13C4-PFHpA | 1323149.32 | 1250.00 | PFHpA | 0.034 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.91 | 1767067.47 | 2582.95 | 1966.1 | False | 13C3-PFHxS | 243400.35 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.91 | 639460.20 | 2555.40 | 2460.7 | False | 13C3-PFHxS | 243400.35 | 1182.50 | PFHxS | 0.362 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 2947993.94 | 2282.26 | 865.7 | False | 13C8-PFOA | 1633114.92 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 287903.86 | 2223.93 | 996.2 | False | 13C8-PFOA | 1633114.92 | 1222.50 | PFOA | 0.098 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.63 | 2532746.34 | 2282.57 | 877.1 | False | 13C9-PFNA | 1443271.03 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.63 | 849238.11 | 2355.76 | 2276.7 | False | 13C9-PFNA | 1443271.03 | 1250.00 | PFNA | 0.335 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.63 | 1714671.51 | 2395.50 | 1406.8 | False | 13C8-PFOS | 225411.65 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.63 | 337581.87 | 2386.17 | 2387.2 | False | 13C8-PFOS | 225411.65 | 1195.00 | PFOS | 0.197 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.99 | 2581158.36 | 2426.56 | 962.1 | False | 13C6-PFDA | 1386341.74 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.99 | 150332.95 | 2396.41 | 1616.7 | False | 13C6-PFDA | 1386341.74 | 1250.00 | PFDA | 0.058 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.31 | 2770576.35 | 2541.02 | 1639.7 | False | 13C7-PFUnA | 1209869.97 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.31 | 177881.91 | 2509.46 | 2397.7 | False | 13C7-PFUnA | 1209869.97 | 1250.00 | PFUnA | 0.064 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.60 | 2879268.01 | 2419.51 | 1759.3 | False | 13C2-PFDoA | 1465169.80 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.60 | 356244.43 | 2570.58 | 2426.3 | False | 13C2-PFDoA | 1465169.80 | 1250.00 | PFDoA | 0.124 | 0.117 | ✓ |
| PFTeDA_1 | 663.0 / 619.0 | 3.85 | 2431035.69 | 2535.95 | 2256.3 | False | 13C2-PFTeDA | 1355665.37 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 663.0 / 169.0 | 3.85 | 183827.97 | 2620.26 | 1928.9 | False | 13C2-PFTeDA | 1355665.37 | 1250.00 | PFTeDA | 0.076 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | 4.08 | 2776943.66 | 2542.60 | 2958.0 | False | 13C2-PFTeDA | 1355665.37 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | 4.08 | 163727.36 | 2556.74 | 3465.5 | False | 13C2-PFTeDA | 1355665.37 | 1250.00 | PFTeDA | 0.059 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.13 | 249367.38 | 2229.94 | 757.7 | False | d3-MeFOSAA | 179192.85 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.13 | 263083.76 | 2235.76 | 7960351.7 | False | d3-MeFOSAA | 179192.85 | 1250.00 | NMeFOSAA | 1.055 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.30 | 313407.61 | 2536.20 | 3106.3 | False | d5-EtFOSAA | 156635.50 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.30 | 15619.85 | 2156.14 | 552.6 | False | d5-EtFOSAA | 156635.50 | 1250.00 | NEtFOSAA | 0.050 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.66 | 2791226.19 | 2776.09 | 5621.2 | False | 13C3-HFPO-DA | 476915.83 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 56174.79 | 2611.98 | 147981.1 | False | 13C3-HFPO-DA | 476915.83 | 1250.00 | HFPO-DA | 0.020 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 6193375.88 | 2277.00 | 12149.1 | False | 13C8-PFOA | 1633114.92 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.93 | 99835.13 | 2286.59 | 9178640.9 | False | 13C8-PFOA | 1633114.92 | 1222.50 | ADONA | 0.016 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.83 | 3208498.29 | 2174.70 | 2182.4 | False | 13C8-PFOA | 1633114.92 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.83 | 32460.60 | 2057.82 | 1242.5 | False | 13C8-PFOA | 1633114.92 | 1222.50 | 9CI-PF3ONS | 0.010 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.46 | 2450288.25 | 2098.54 | 2568.8 | False | 13C8-PFOA | 1633114.92 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.46 | 13743.89 | 2130.06 | 1413.1 | False | 13C8-PFOA | 1633114.92 | 1222.50 | 11Cl-PF3OUdS | 0.006 | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 4 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 6:19:40 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.33 | 691398.78 | 1052.45 | 9824.5 | False | 13C3-PFBS | 285826.80 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.33 | 216983.88 | 1036.58 | 1900.7 | False | 13C3-PFBS | 285826.80 | 1162.50 | PFBS | 0.314 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.58 | 1263686.59 | 1115.24 | 1243.0 | False | 13C5-PFHxA | 1210342.28 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.58 | 76029.08 | 1048.96 | 950.8 | False | 13C5-PFHxA | 1210342.28 | 1250.00 | PFHxA | 0.060 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.91 | 1016155.04 | 1110.35 | 787.6 | False | 13C4-PFHpA | 1193480.90 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.91 | 29704.85 | 1059.24 | 1783.4 | False | 13C4-PFHpA | 1193480.90 | 1250.00 | PFHpA | 0.029 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.92 | 641945.09 | 933.66 | 1364.8 | False | 13C3-PFHxS | 232970.49 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.92 | 233510.23 | 970.19 | 956.0 | False | 13C3-PFHxS | 232970.49 | 1182.50 | PFHxS | 0.364 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.28 | 1151047.67 | 956.91 | 654.0 | False | 13C8-PFOA | 1486398.35 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.28 | 105889.77 | 904.94 | 782.0 | False | 13C8-PFOA | 1486398.35 | 1222.50 | PFOA | 0.092 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.65 | 1007491.09 | 1018.81 | 628.8 | False | 13C9-PFNA | 1280625.35 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.65 | 313149.08 | 976.36 | 1638.7 | False | 13C9-PFNA | 1280625.35 | 1250.00 | PFNA | 0.311 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.64 | 638584.21 | 887.14 | 850.1 | False | 13C8-PFOS | 223315.95 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.65 | 134880.46 | 952.17 | 1972.9 | False | 13C8-PFOS | 223315.95 | 1195.00 | PFOS | 0.211 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 3.01 | 1023534.25 | 924.35 | 659.0 | False | 13C6-PFDA | 1375140.96 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 3.00 | 59927.94 | 936.91 | 108344.4 | False | 13C6-PFDA | 1375140.96 | 1250.00 | PFDA | 0.059 | 0.058 | ✓ |
| PFOA_1 | 563.0 / 519.0 | 3.33 | 1039291.46 | 886.62 | 738.6 | False | 13C7-PFOA | 1235121.52 | 1250.00 | PFOA | | | |
| PFOA_2 | 563.0 / 269.0 | 3.33 | 69297.88 | 949.89 | 1238.5 | False | 13C7-PFOA | 1235121.52 | 1250.00 | PFOA | 0.067 | 0.062 | ✓ |
| PFOA_1 | 613.0 / 569.0 | 3.62 | 1155983.74 | 1041.64 | 1266.6 | False | 13C2-PFOA | 1340690.72 | 1250.00 | PFOA | | | |
| PFOA_2 | 613.0 / 319.0 | 3.62 | 128169.25 | 988.85 | 1620.4 | False | 13C2-PFOA | 1340690.72 | 1250.00 | PFOA | 0.111 | 0.117 | ✓ |
| PFTeDA_1 | 663.0 / 619.0 | 3.88 | 958309.19 | 977.71 | 1972.9 | False | 13C2-PFTeDA | 1331157.27 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 663.0 / 169.0 | 3.88 | 67674.77 | 972.20 | 1759.1 | False | 13C2-PFTeDA | 1331157.27 | 1250.00 | PFTeDA | 0.071 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | 4.11 | 1094271.93 | 973.94 | 2772.2 | False | 13C2-PFTeDA | 1331157.27 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | 4.11 | 64663.36 | 1014.97 | 2517.6 | False | 13C2-PFTeDA | 1331157.27 | 1250.00 | PFTeDA | 0.059 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.15 | 92318.62 | 872.70 | 286376.9 | False | d3-MeFOSAA | 177780.59 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.15 | 122984.27 | 1053.53 | 4949.2 | False | d3-MeFOSAA | 177780.59 | 1250.00 | NMeFOSAA | 1.332 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.32 | 106974.07 | 831.46 | 1008.9 | False | d5-EtFOSAA | 157782.89 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.31 | 6663.82 | 860.78 | 260.4 | False | d5-EtFOSAA | 157782.89 | 1250.00 | NEtFOSAA | 0.062 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.67 | 1021807.10 | 998.84 | 2321.2 | False | 13C3-HFPO-DA | 463304.47 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.66 | 19027.58 | 891.15 | 41034.2 | False | 13C3-HFPO-DA | 463304.47 | 1250.00 | HFPO-DA | 0.019 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.94 | 2230296.73 | 884.88 | 5750.6 | False | 13C8-PFOA | 1486398.35 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.94 | 33310.33 | 862.71 | 96774.0 | False | 13C8-PFOA | 1486398.35 | 1222.50 | ADONA | 0.015 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.85 | 1287109.30 | 968.21 | 1477.6 | False | 13C8-PFOA | 1486398.35 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.85 | 12830.34 | 923.05 | 6501.2 | False | 13C8-PFOA | 1486398.35 | 1222.50 | 9CI-PF3ONS | 0.010 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.48 | 995598.52 | 936.79 | 1915.1 | False | 13C8-PFOA | 1486398.35 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.48 | 5217.98 | 914.64 | 656.0 | False | 13C8-PFOA | 1486398.35 | 1222.50 | 11Cl-PF3OUdS | 0.005 | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD81 ICC | Injection Vial | 9 |
| Sample ID | ICC | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:59:12 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|------------|----------|-----------|-----------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1185415.16 | 1249.28 | 5458.4 | False | 13C2-PFDA | 947982.79 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 138947.60 | 1204.62 | 950.7 | False | 13C4-PFOS | 174564.26 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.28 | 124835.04 | 1213.65 | 1027.7 | False | 13C4-PFOS | 174564.26 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 1091422.65 | 1217.35 | 22478.0 | False | 13C2-PFOA | 702017.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 1100488.63 | 1243.93 | 36202720.4 | False | 13C2-PFOA | 702017.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 1286963.42 | 1244.43 | 7788.1 | False | 13C2-PFOA | 702017.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.62 | 1130135.07 | 1245.03 | 3624.2 | False | 13C4-PFOS | 174564.26 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 1043601.38 | 1240.71 | 10749.7 | False | 13C2-PFDA | 947982.79 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.29 | 977759.72 | 1284.78 | 3895.2 | False | 13C2-PFDA | 947982.79 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 1144160.82 | 1265.13 | 4230.8 | False | 13C2-PFDA | 947982.79 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 253944.54 | 1154.43 | 5263.9 | False | 13C4-PFOS | 174564.26 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 217690.01 | 1294.75 | 13206345.5 | False | 13C4-PFOS | 174564.26 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 196571.48 | 1274.03 | 1316.7 | False | 13C4-PFOS | 174564.26 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 434439.97 | 1166.53 | 3598.1 | False | 13C2-PFOA | 702017.09 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 1:12:05 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.60 | 1418889.04 | 1215.04 | 3161.6 | False | 13C2-PFDA | 1166667.12 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 191258.35 | 1263.06 | 1239.0 | False | 13C4-PFOS | 229167.57 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 174695.18 | 1293.72 | 1183.3 | False | 13C4-PFOS | 229167.57 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1292610.69 | 1239.66 | 8916.4 | False | 13C2-PFOA | 816459.62 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1234548.06 | 1199.86 | 1383856.3 | False | 13C2-PFOA | 816459.62 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1429953.03 | 1188.88 | 5755.9 | False | 13C2-PFOA | 816459.62 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.63 | 1345026.63 | 1128.71 | 7749.7 | False | 13C4-PFOS | 229167.57 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.98 | 1306181.07 | 1261.81 | 2963.2 | False | 13C2-PFDA | 1166667.12 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 1151951.46 | 1229.94 | 3835.7 | False | 13C2-PFDA | 1166667.12 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.08 | 1356323.60 | 1218.61 | 3690.1 | False | 13C2-PFDA | 1166667.12 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 307940.44 | 1066.35 | 6009.4 | False | 13C4-PFOS | 229167.57 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 262142.06 | 1187.64 | 9361.3 | False | 13C4-PFOS | 229167.57 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.62 | 225669.69 | 1114.12 | 1208.3 | False | 13C4-PFOS | 229167.57 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 463425.48 | 1069.93 | 16987.8 | False | 13C2-PFOA | 816459.62 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:17:56 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1510927.41 | 1335.70 | 4455.8 | False | 13C2-PFDA | 1130123.83 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 195829.78 | 1363.59 | 1154.5 | False | 13C4-PFOS | 217345.65 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 181316.89 | 1415.79 | 1442.8 | False | 13C4-PFOS | 217345.65 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1542527.96 | 1461.93 | 8092.8 | False | 13C2-PFOA | 826179.16 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1305242.56 | 1253.65 | 9563.0 | False | 13C2-PFOA | 826179.16 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1786244.50 | 1467.63 | 1022.6 | False | 13C2-PFOA | 826179.16 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.62 | 1562273.26 | 1382.33 | 3722.6 | False | 13C4-PFOS | 217345.65 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 1420730.58 | 1416.85 | 2896.9 | False | 13C2-PFDA | 1130123.83 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 1359562.15 | 1498.55 | 3656.1 | False | 13C2-PFDA | 1130123.83 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.08 | 1441721.12 | 1337.22 | 3728.7 | False | 13C2-PFDA | 1130123.83 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 294801.75 | 1076.38 | 7876.2 | False | 13C4-PFOS | 217345.65 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 250999.86 | 1199.02 | 66733.4 | False | 13C4-PFOS | 217345.65 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 226922.98 | 1181.25 | 1445.4 | False | 13C4-PFOS | 217345.65 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 405460.74 | 925.10 | 6755.9 | False | 13C2-PFOA | 826179.16 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 34 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:13:05 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.58 | 1485799.70 | 1304.27 | 4318.1 | False | 13C2-PFDA | 1138106.89 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 162108.52 | 1051.24 | 1293.3 | False | 13C4-PFOS | 233376.87 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.28 | 180320.39 | 1311.29 | 1179.9 | False | 13C4-PFOS | 233376.87 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1336839.79 | 1243.82 | 5849.7 | False | 13C2-PFOA | 841571.43 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1225292.72 | 1155.33 | 7871.0 | False | 13C2-PFOA | 841571.43 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 1586043.43 | 1279.31 | 151118.9 | False | 13C2-PFOA | 841571.43 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.61 | 1476664.94 | 1216.83 | 9019.0 | False | 13C4-PFOS | 233376.87 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.96 | 1282537.68 | 1270.06 | 11427.7 | False | 13C2-PFDA | 1138106.89 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.29 | 1283668.17 | 1404.97 | 5485.1 | False | 13C2-PFDA | 1138106.89 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 1337154.05 | 1231.53 | 4232.2 | False | 13C2-PFDA | 1138106.89 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 298537.90 | 1015.14 | 7958.9 | False | 13C4-PFOS | 233376.87 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 237708.23 | 1057.52 | 2856.7 | False | 13C4-PFOS | 233376.87 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 224330.18 | 1087.54 | 1240.8 | False | 13C4-PFOS | 233376.87 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 431813.36 | 967.20 | 7398.0 | False | 13C2-PFOA | 841571.43 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 38 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:54:59 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.58 | 1440170.48 | 1212.38 | 4508.8 | False | 13C2-PFDA | 1186767.18 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 181843.71 | 1323.87 | 991.7 | False | 13C4-PFOS | 207877.35 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.27 | 173481.66 | 1416.31 | 965.5 | False | 13C4-PFOS | 207877.35 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 1402328.86 | 1225.30 | 6637.3 | False | 13C2-PFOA | 896139.32 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 1324682.45 | 1172.99 | 10507.4 | False | 13C2-PFOA | 896139.32 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 1507834.19 | 1142.17 | 30603.9 | False | 13C2-PFOA | 896139.32 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.61 | 1526759.60 | 1412.44 | 5824.5 | False | 13C4-PFOS | 207877.35 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 1315448.56 | 1249.24 | 7048.1 | False | 13C2-PFDA | 1186767.18 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.29 | 1281265.44 | 1344.84 | 4910.7 | False | 13C2-PFDA | 1186767.18 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 1363728.60 | 1204.51 | 4317.7 | False | 13C2-PFDA | 1186767.18 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 315299.79 | 1203.65 | 6834.7 | False | 13C4-PFOS | 207877.35 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 252807.57 | 1262.66 | 2272.2 | False | 13C4-PFOS | 207877.35 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 219533.74 | 1194.83 | 1739.2 | False | 13C4-PFOS | 207877.35 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.64 | 416152.02 | 875.36 | 1552.8 | True | 13C2-PFOA | 896139.32 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 9:25:12 AM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.69 | 1192594.11 | 1162.85 | 4618.1 | False | 13C2-PFDA | 1024606.79 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.21 | 143689.95 | 1230.36 | 2090.1 | False | 13C4-PFOS | 176745.67 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.38 | 134806.73 | 1294.42 | 936.3 | False | 13C4-PFOS | 176745.67 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.60 | 1030782.70 | 1164.58 | 8820.9 | False | 13C2-PFOA | 693055.64 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.95 | 1083158.75 | 1240.17 | 72925.1 | False | 13C2-PFOA | 693055.64 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.32 | 1305945.53 | 1279.11 | 16517.8 | False | 13C2-PFOA | 693055.64 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.70 | 1085409.06 | 1181.00 | 10233.5 | False | 13C4-PFOS | 176745.67 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 3.06 | 1238532.25 | 1362.34 | 5865.6 | False | 13C2-PFDA | 1024606.79 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.39 | 1036943.03 | 1260.65 | 5869.3 | False | 13C2-PFDA | 1024606.79 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.19 | 1172315.87 | 1199.32 | 3819.4 | False | 13C2-PFDA | 1024606.79 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.34 | 263029.07 | 1180.97 | 12041.3 | False | 13C4-PFOS | 176745.67 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.96 | 218436.80 | 1283.16 | 534585.7 | False | 13C4-PFOS | 176745.67 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.70 | 194080.33 | 1242.36 | 1265.5 | False | 13C4-PFOS | 176745.67 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.71 | 446842.04 | 1215.34 | 3204.8 | False | 13C2-PFOA | 693055.64 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 6 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:23:40 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.63 | 1445752.34 | 1220.40 | 5985.5 | False | 13C2-PFDA | 1183532.89 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.16 | 192760.46 | 1361.57 | 1195.7 | False | 13C4-PFOS | 214255.84 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.33 | 167796.97 | 1329.12 | 1204.1 | False | 13C4-PFOS | 214255.84 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.58 | 1405082.60 | 1373.11 | 9378.2 | False | 13C2-PFOA | 801244.38 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.92 | 1302528.28 | 1289.97 | 412113.2 | False | 13C2-PFOA | 801244.38 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.28 | 1586605.33 | 1344.17 | 1049.9 | False | 13C2-PFOA | 801244.38 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.66 | 1456596.26 | 1307.41 | 6261.9 | False | 13C4-PFOS | 214255.84 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 3.01 | 1397823.20 | 1331.09 | 4502.2 | False | 13C2-PFDA | 1183532.89 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.34 | 1326688.40 | 1396.32 | 4764.6 | False | 13C2-PFDA | 1183532.89 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.12 | 1370246.53 | 1213.57 | 4227.8 | False | 13C2-PFDA | 1183532.89 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.33 | 296396.33 | 1097.80 | 9355.1 | False | 13C4-PFOS | 214255.84 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.93 | 261493.96 | 1267.16 | 3241.7 | False | 13C4-PFOS | 214255.84 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.65 | 219769.19 | 1160.51 | 1002.2 | False | 13C4-PFOS | 214255.84 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.68 | 427829.98 | 1006.51 | 6429.2 | False | 13C2-PFOA | 801244.38 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 16 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:08:37 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.61 | 1453962.70 | 1253.89 | 4375.3 | False | 13C2-PFDA | 1158463.76 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.14 | 185991.46 | 1352.92 | 1121.1 | False | 13C4-PFOS | 208053.54 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.31 | 165617.16 | 1350.96 | 1539.6 | False | 13C4-PFOS | 208053.54 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 1310463.36 | 1346.41 | 7226.7 | False | 13C2-PFOA | 762108.72 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.90 | 1226099.07 | 1276.64 | 23850.8 | False | 13C2-PFOA | 762108.72 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.26 | 1567109.78 | 1395.83 | 74897.0 | False | 13C2-PFOA | 762108.72 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.63 | 1496054.09 | 1382.86 | 4639.1 | False | 13C4-PFOS | 208053.54 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.99 | 1363513.07 | 1326.52 | 17551.7 | False | 13C2-PFDA | 1158463.76 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.32 | 1296577.13 | 1394.16 | 3529.9 | False | 13C2-PFDA | 1158463.76 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.09 | 1351982.28 | 1223.31 | 4510.8 | False | 13C2-PFDA | 1158463.76 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 309646.83 | 1181.07 | 12770.4 | False | 13C4-PFOS | 208053.54 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.91 | 249034.05 | 1242.76 | 4453.3 | False | 13C4-PFOS | 208053.54 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.63 | 206973.97 | 1125.52 | 1537.8 | False | 13C4-PFOS | 208053.54 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 441046.33 | 1090.89 | 4694.2 | False | 13C2-PFOA | 762108.72 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 3:21:53 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.56 | 1470192.11 | 1217.07 | 4409.3 | False | 13C2-PFDA | 1206839.78 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.10 | 166010.80 | 1142.27 | 952.6 | False | 13C4-PFOS | 219948.80 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.26 | 158614.57 | 1223.86 | 1516.8 | False | 13C4-PFOS | 219948.80 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1451516.44 | 1343.47 | 7621.8 | False | 13C2-PFOA | 845983.41 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1268538.72 | 1189.87 | 64240.9 | False | 13C2-PFOA | 845983.41 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 1530569.42 | 1228.12 | 11328.3 | False | 13C2-PFOA | 845983.41 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.60 | 1458593.50 | 1275.32 | 6044.7 | False | 13C4-PFOS | 219948.80 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.95 | 1394413.77 | 1302.20 | 5537.9 | False | 13C2-PFDA | 1206839.78 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.27 | 1192290.11 | 1230.63 | 3013.4 | False | 13C2-PFDA | 1206839.78 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.05 | 1413643.46 | 1227.83 | 4094.4 | False | 13C2-PFDA | 1206839.78 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 294490.62 | 1062.51 | 5901.2 | False | 13C4-PFOS | 219948.80 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 234208.33 | 1105.56 | 2295.3 | False | 13C4-PFOS | 219948.80 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.60 | 222278.42 | 1143.38 | 1148.8 | False | 13C4-PFOS | 219948.80 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 461088.93 | 1027.39 | 4009.7 | False | 13C2-PFOA | 845983.41 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 10 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 5:06:36 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.60 | 1465169.80 | 1370.19 | 6374.6 | False | 13C2-PFDA | 1068306.97 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.13 | 178682.87 | 1224.43 | 1494.6 | False | 13C4-PFOS | 220854.38 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 156261.17 | 1200.76 | 1073.0 | False | 13C4-PFOS | 220854.38 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1321462.64 | 1305.08 | 5934.5 | False | 13C2-PFOA | 792842.43 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1323149.32 | 1324.28 | 1502.1 | False | 13C2-PFOA | 792842.43 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1633114.92 | 1398.24 | 18518.1 | False | 13C2-PFOA | 792842.43 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.63 | 1443271.03 | 1256.75 | 3882.4 | False | 13C4-PFOS | 220854.38 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.98 | 1386341.74 | 1462.55 | 14699.4 | False | 13C2-PFDA | 1068306.97 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 1209869.97 | 1410.72 | 3707.1 | False | 13C2-PFDA | 1068306.97 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.08 | 1355665.37 | 1330.16 | 4475.2 | False | 13C2-PFDA | 1068306.97 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 286063.96 | 1027.88 | 4141.3 | False | 13C4-PFOS | 220854.38 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 243400.35 | 1144.24 | 3055.6 | False | 13C4-PFOS | 220854.38 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.62 | 225411.65 | 1154.74 | 1394.0 | False | 13C4-PFOS | 220854.38 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 476915.83 | 1133.88 | 7382.0 | False | 13C2-PFOA | 792842.43 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 4 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 6:19:40 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.62 | 1340690.72 | 1121.87 | 4604.6 | False | 13C2-PFDA | 1193925.87 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.15 | 178605.77 | 1311.43 | 1338.7 | False | 13C4-PFOS | 206112.91 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.31 | 157992.12 | 1300.89 | 1208.2 | False | 13C4-PFOS | 206112.91 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 1210342.28 | 1190.18 | 5147.0 | False | 13C2-PFOA | 796274.44 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.90 | 1193480.90 | 1189.35 | 25373.3 | False | 13C2-PFOA | 796274.44 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.27 | 1486398.35 | 1267.14 | 9749.8 | False | 13C2-PFOA | 796274.44 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.64 | 1280625.35 | 1194.88 | 13369.9 | False | 13C4-PFOS | 206112.91 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 3.00 | 1375140.96 | 1298.10 | 4884.3 | False | 13C2-PFDA | 1193925.87 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.33 | 1235121.52 | 1288.63 | 6670.0 | False | 13C2-PFDA | 1193925.87 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.11 | 1331157.27 | 1168.69 | 3413.4 | False | 13C2-PFDA | 1193925.87 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 285826.80 | 1100.48 | 6633.1 | False | 13C4-PFOS | 206112.91 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.91 | 232970.49 | 1173.54 | 4115.8 | False | 13C4-PFOS | 206112.91 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.64 | 223315.95 | 1225.82 | 1278.9 | False | 13C4-PFOS | 206112.91 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 463304.47 | 1096.77 | 5890.9 | False | 13C2-PFOA | 796274.44 | 1250.00 | | N/A | N/A | ✓ |

Raw Analytical Data



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD80 IB | Injection Vial | 8 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:48:46 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|----------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 241329.20 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 241329.20 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.61 | 42545.18 | < 0 | 155.2 | True | 13C5-PFHxA | 1115893.79 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1115893.79 | 1250.00 | PFHxA | N/A | 0.063 | |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1143051.39 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1143051.39 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 201877.07 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 201877.07 | 1182.50 | PFHxS | N/A | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1280550.40 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1280550.40 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1188221.78 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1188221.78 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.60 | 8457.13 | < 0 | 26.1 | True | 13C8-PFOS | 174603.19 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.62 | 1835.33 | < 0 | 43.5 | True | 13C8-PFOS | 174603.19 | 1195.00 | PFOS | 0.217 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1060795.68 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1060795.68 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 983100.30 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 983100.30 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.60 | 12139.45 | < 0 | 66.8 | False | 13C2-PFDoA | 1209794.83 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.60 | 1535.12 | < 0 | 75.8 | False | 13C2-PFDoA | 1209794.83 | 1250.00 | PFDoA | 0.126 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.85 | 9371.18 | < 0 | 128.5 | True | 13C2-PFTTeDA | 1122189.49 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.85 | 908.14 | < 0 | 66.5 | True | 13C2-PFTTeDA | 1122189.49 | 1250.00 | PFTTrDA | 0.097 | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | 4.08 | 26138.12 | < 0 | 322.7 | False | 13C2-PFTTeDA | 1122189.49 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | 4.08 | 819.65 | < 0 | 68.4 | False | 13C2-PFTTeDA | 1122189.49 | 1250.00 | PFTTeDA | 0.031 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.12 | 3148.48 | 98.02 | 533.0 | True | d3-MeFOSAA | 147239.13 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.13 | 6629.76 | 68.70 | 732.6 | True | d3-MeFOSAA | 147239.13 | 1250.00 | NMeFOSAA | 2.106 | 1.118 | |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.29 | 5768.58 | 16.40 | 465.6 | False | d5-EtFOSAA | 126832.81 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 126832.81 | 1250.00 | NEtFOSAA | N/A | 0.060 | |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 394199.73 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 394199.73 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.92 | 5093.97 | < 0 | 124.0 | False | 13C8-PFOA | 1280550.40 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1280550.40 | 1222.50 | ADONA | N/A | 0.015 | |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1280550.40 | 1222.50 | 9Cl-PF3ONS | | | |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1280550.40 | 1222.50 | 9Cl-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.45 | 3032.57 | 3.22 | 49.2 | False | 13C8-PFOA | 1280550.40 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1280550.40 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD80 IB | Injection Vial | 4 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 1:33:00 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|----------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 259806.56 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 259806.56 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1239957.52 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1239957.52 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1156654.42 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1156654.42 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 220455.98 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 220455.98 | 1182.50 | PFHxS | N/A | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1462592.09 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1462592.09 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1281748.37 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1281748.37 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.59 | 9816.18 | < 0 | 24.9 | False | 13C8-PFOS | 193299.41 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.57 | 2299.38 | 2.04 | 199.2 | False | 13C8-PFOS | 193299.41 | 1195.00 | PFOS | 0.234 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1309539.92 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1309539.92 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1119648.95 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1119648.95 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.63 | 14086.79 | < 0 | 69.0 | False | 13C2-PFDoA | 1292459.60 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.62 | 1906.01 | < 0 | 60.2 | False | 13C2-PFDoA | 1292459.60 | 1250.00 | PFDoA | 0.135 | 0.117 | ✓ |
| PFTrDA_1 | 663.0 / 619.0 | 3.88 | 10152.12 | < 0 | 112.0 | False | 13C2-PFTeDA | 1299221.86 | 1250.00 | PFTrDA | | | |
| PFTrDA_2 | 663.0 / 169.0 | 3.88 | 1178.56 | 1.34 | 74.2 | False | 13C2-PFTeDA | 1299221.86 | 1250.00 | PFTrDA | 0.116 | 0.070 | |
| PFTeDA_1 | 713.0 / 669.0 | 4.09 | 28256.46 | < 0 | 325.4 | False | 13C2-PFTeDA | 1299221.86 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | 4.12 | 856.30 | < 0 | 73.1 | False | 13C2-PFTeDA | 1299221.86 | 1250.00 | PFTeDA | 0.030 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.15 | 3353.37 | 95.81 | 1120.3 | True | d3-MeFOSAA | 167996.13 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.15 | 3975.36 | 36.17 | 59.8 | True | d3-MeFOSAA | 167996.13 | 1250.00 | NMeFOSAA | 1.185 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.32 | 7581.13 | 22.67 | 307.5 | True | d5-EtFOSAA | 150564.06 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 150564.06 | 1250.00 | NEtFOSAA | N/A | 0.060 | |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 427719.44 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 427719.44 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.93 | 5824.22 | < 0 | 131.0 | False | 13C8-PFOA | 1462592.09 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1462592.09 | 1222.50 | ADONA | N/A | 0.015 | |
| 9Cl-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1462592.09 | 1222.50 | 9Cl-PF3ONS | | | |
| 9Cl-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1462592.09 | 1222.50 | 9Cl-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1462592.09 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1462592.09 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |



| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | DB253PB-FS(0) | Injection Vial | 25 |
| Sample ID | Procedural Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:38:54 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|---------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.34 | 6849.09 | < 0 | 235.3 | True | 13C3-PFBS | 363269.56 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 3462.11 | < 0 | 68.1 | False | 13C3-PFBS | 363269.56 | 1162.50 | PFBS | 0.505 | 0.319 | |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1700555.18 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1700555.18 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1673393.35 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1673393.35 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 298815.62 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 298815.62 | 1182.50 | PFHxS | N/A | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1933317.49 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1933317.49 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1703985.60 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1703985.60 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOS | 247136.78 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOS | 247136.78 | 1195.00 | PFOS | N/A | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1595203.06 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1595203.06 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1525907.49 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1525907.49 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1659191.24 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1659191.24 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1561136.88 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1561136.88 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1561136.88 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1561136.88 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 281046.10 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 281046.10 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 246536.70 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 246536.70 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 453079.36 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | False | 13C3-HFPO-DA | 453079.36 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1933317.49 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1933317.49 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1933317.49 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1933317.49 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1933317.49 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1933317.49 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |



| | | | |
|--------------------|---------------------------|------------------|----------------------------|
| Sample Name | DB254LCS-FS(0) | Injection Vial | 26 |
| Sample ID | Laboratory Control Sample | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:49:21 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|-------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 6342566.85 | 9985.52 | 16412.3 | False | 13C3-PFBS | 303073.75 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 1971503.85 | 9842.67 | 6228.2 | False | 13C3-PFBS | 303073.75 | 1162.50 | PFBS | 0.311 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 10345373.30 | 9191.00 | 3170.8 | False | 13C5-PFHxA | 1295199.77 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 685369.74 | 9312.75 | 3783.1 | False | 13C5-PFHxA | 1295199.77 | 1250.00 | PFHxA | 0.066 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.88 | 8053453.79 | 9528.31 | 1993.3 | False | 13C4-PFHpA | 1155531.93 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.88 | 266311.69 | 10353.29 | 32680.0 | False | 13C4-PFHpA | 1155531.93 | 1250.00 | PFHpA | 0.033 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.89 | 6494230.80 | 9582.65 | 2940.0 | False | 13C3-PFHxS | 246206.96 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.89 | 2348914.95 | 9299.84 | 4500.2 | False | 13C3-PFHxS | 246206.96 | 1182.50 | PFHxS | 0.362 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.24 | 9654861.49 | 8107.32 | 1603.7 | False | 13C8-PFOA | 1523960.09 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.23 | 1057775.14 | 8725.27 | 1883.9 | False | 13C8-PFOA | 1523960.09 | 1222.50 | PFOA | 0.110 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.60 | 8939148.00 | 8371.33 | 1629.3 | False | 13C9-PFNA | 1392527.44 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.60 | 3110513.54 | 8955.46 | 4197.7 | False | 13C9-PFNA | 1392527.44 | 1250.00 | PFNA | 0.348 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.59 | 5737405.18 | 9406.61 | 1529.4 | False | 13C8-PFOS | 193354.92 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.59 | 1228527.77 | 10178.70 | 3075.3 | False | 13C8-PFOS | 193354.92 | 1195.00 | PFOS | 0.214 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.95 | 8810721.54 | 8899.10 | 1617.4 | False | 13C6-PFDA | 1319573.64 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.95 | 572052.94 | 9711.47 | 1926.6 | False | 13C6-PFDA | 1319573.64 | 1250.00 | PFDA | 0.065 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.27 | 9844444.63 | 8833.21 | 2610.1 | False | 13C7-PFUnA | 1262235.71 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.27 | 644536.21 | 8746.47 | 2642.7 | False | 13C7-PFUnA | 1262235.71 | 1250.00 | PFUnA | 0.065 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.55 | 10729646.23 | 9616.67 | 2709.5 | False | 13C2-PFDoA | 1388750.34 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.55 | 1286561.45 | 9895.65 | 2888.0 | False | 13C2-PFDoA | 1388750.34 | 1250.00 | PFDoA | 0.120 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.80 | 8443495.21 | 9417.57 | 4147.0 | False | 13C2-PFTeDA | 1292357.14 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.80 | 630958.97 | 9476.55 | 2704.6 | False | 13C2-PFTeDA | 1292357.14 | 1250.00 | PFTTrDA | 0.075 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | 4.03 | 9438127.49 | 9263.95 | 3777.7 | False | 13C2-PFTeDA | 1292357.14 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | 4.03 | 588919.25 | 9709.14 | 3636.8 | False | 13C2-PFTeDA | 1292357.14 | 1250.00 | PFTeDA | 0.062 | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.09 | 1552275.68 | 10651.25 | 4946.5 | False | d3-MeFOSAA | 228135.40 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.09 | 1496806.31 | 9990.90 | 3060.3 | False | d3-MeFOSAA | 228135.40 | 1250.00 | NMeFOSAA | 0.964 | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.26 | 1325145.95 | 9270.15 | 2327.8 | False | d5-EtFOSAA | 183373.80 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.26 | 77616.97 | 9446.76 | 1499.2 | False | d5-EtFOSAA | 183373.80 | 1250.00 | NEtFOSAA | 0.059 | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | 1.65 | 9162672.11 | 10859.06 | 6447.0 | False | 13C3-HFPO-DA | 431351.74 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | 1.65 | 201605.75 | 11013.39 | 27415.4 | False | 13C3-HFPO-DA | 431351.74 | 1250.00 | HFPO-DA | 0.022 | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.91 | 21226088.13 | 8433.61 | 13433.9 | False | 13C8-PFOA | 1523960.09 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | 1.91 | 334117.92 | 8100.68 | 24928.5 | False | 13C8-PFOA | 1523960.09 | 1222.50 | ADONA | 0.016 | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | 2.80 | 10539768.94 | 7611.70 | 4628.1 | False | 13C8-PFOA | 1523960.09 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | 2.80 | 119918.38 | 7992.90 | 1716.6 | False | 13C8-PFOA | 1523960.09 | 1222.50 | 9CI-PF3ONS | 0.011 | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | 3.42 | 7930093.85 | 7278.41 | 4064.0 | False | 13C8-PFOA | 1523960.09 | 1222.50 | 11Cl-pf3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | 3.42 | 42617.83 | 6973.99 | 1082.7 | False | 13C8-PFOA | 1523960.09 | 1222.50 | 11Cl-pf3OUdS | 0.005 | 0.005 | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1644-FS1(0) | Injection Vial | 27 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:59:49 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|--------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 1328918.81 | 5498.45 | 801.1 | False | 13C3-PFBS | 114259.89 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 417134.31 | 5468.23 | 1197.3 | False | 13C3-PFBS | 114259.89 | 1162.50 | PFBS | 0.314 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 10658624.41 | 32663.47 | 408.8 | False | 13C5-PFHxA | 378385.42 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 556331.57 | 25989.65 | 400.9 | False | 13C5-PFHxA | 378385.42 | 1250.00 | PFHxA | 0.052 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 4643378.94 | 14435.12 | 417.1 | False | 13C4-PFHpA | 440729.05 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.88 | 170049.16 | 17377.47 | 551.7 | False | 13C4-PFHpA | 440729.05 | 1250.00 | PFHpA | 0.037 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 33555417.45 | 90312.04 | 1567.6 | False | 13C3-PFHxS | 135928.50 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 11426921.80 | 82005.67 | 1849.5 | False | 13C3-PFHxS | 135928.50 | 1182.50 | PFHxS | 0.341 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 17324934.48 | 25620.60 | 659.7 | False | 13C8-PFOA | 868168.40 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.24 | 2503921.38 | 36222.58 | 1575.8 | False | 13C8-PFOA | 868168.40 | 1222.50 | PFOA | 0.145 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.61 | 20978287.70 | 59714.08 | 1103.5 | False | 13C9-PFNA | 458519.78 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.61 | 6912599.00 | 60468.41 | 1418.4 | False | 13C9-PFNA | 458519.78 | 1250.00 | PFNA | 0.330 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.58 | 123063253.68 | 422351.84 | 2179.7 | False | 13C8-PFOS | 92574.91 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.60 | 24513442.53 | 424895.98 | 4640.6 | False | 13C8-PFOS | 92574.91 | 1195.00 | PFOS | 0.199 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.96 | 1083886.07 | 1450.05 | 505.6 | False | 13C6-PFDA | 954631.56 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.96 | 72949.24 | 1675.82 | 528.8 | False | 13C6-PFDA | 954631.56 | 1250.00 | PFDA | 0.067 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.28 | 4722896.18 | 5163.88 | 1353.8 | False | 13C7-PFUnA | 1029744.71 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.28 | 275041.83 | 4569.07 | 1236.0 | False | 13C7-PFUnA | 1029744.71 | 1250.00 | PFUnA | 0.058 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.57 | 15231.02 | < 0 | 51.4 | False | 13C2-PFDoA | 1189177.09 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.57 | 1631.82 | < 0 | 50.5 | False | 13C2-PFDoA | 1189177.09 | 1250.00 | PFDoA | 0.107 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.83 | 20644.50 | < 0 | 201.4 | False | 13C2-PFTeDA | 954701.33 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.83 | 1748.27 | 19.31 | 71.7 | True | 13C2-PFTeDA | 954701.33 | 1250.00 | PFTTrDA | 0.085 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 954701.33 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 954701.33 | 1250.00 | PFTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 156085.89 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 156085.89 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 166479.30 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 166479.30 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 266394.71 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 266394.71 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 868168.40 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 868168.40 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 868168.40 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 868168.40 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 868168.40 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 868168.40 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1645-FS1(0) | Injection Vial | 28 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:10:17 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|--------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 1371339.47 | 5078.83 | 901.9 | False | 13C3-PFBS | 127433.03 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 419479.87 | 4918.05 | 953.2 | False | 13C3-PFBS | 127433.03 | 1162.50 | PFBS | 0.306 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 11266650.24 | 39086.94 | 487.8 | False | 13C5-PFHxA | 334406.39 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 610008.06 | 32260.42 | 398.4 | False | 13C5-PFHxA | 334406.39 | 1250.00 | PFHxA | 0.054 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 4946613.96 | 14293.63 | 434.4 | False | 13C4-PFHpA | 474138.38 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.88 | 191997.49 | 18241.14 | 700.3 | False | 13C4-PFHpA | 474138.38 | 1250.00 | PFHpA | 0.039 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 33874410.83 | 90077.27 | 1653.4 | False | 13C3-PFHxS | 137578.04 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 11400359.39 | 80833.98 | 1938.7 | False | 13C3-PFHxS | 137578.04 | 1182.50 | PFHxS | 0.337 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 19399507.63 | 29424.38 | 763.5 | False | 13C8-PFOA | 846622.86 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.24 | 2109700.65 | 31297.76 | 1475.1 | False | 13C8-PFOA | 846622.86 | 1222.50 | PFOA | 0.109 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.62 | 22324371.40 | 59516.86 | 1220.7 | False | 13C9-PFNA | 489557.64 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.62 | 7802305.99 | 63924.33 | 1661.5 | False | 13C9-PFNA | 489557.64 | 1250.00 | PFNA | 0.349 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.58 | 126924690.11 | 497291.06 | 2228.6 | False | 13C8-PFOS | 81092.02 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.61 | 25589337.67 | 506355.32 | 3835.4 | False | 13C8-PFOS | 81092.02 | 1195.00 | PFOS | 0.202 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.97 | 1030405.20 | 1190.91 | 477.0 | False | 13C6-PFDA | 1093138.67 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.96 | 78302.59 | 1568.14 | 499.7 | False | 13C6-PFDA | 1093138.67 | 1250.00 | PFDA | 0.076 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.29 | 4160495.79 | 4436.57 | 1247.8 | False | 13C7-PFUnA | 1053381.06 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.29 | 245348.94 | 3982.75 | 1127.2 | False | 13C7-PFUnA | 1053381.06 | 1250.00 | PFUnA | 0.059 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.58 | 9540.93 | < 0 | 33.2 | False | 13C2-PFDoA | 1189307.66 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.58 | 1434.29 | < 0 | 48.4 | False | 13C2-PFDoA | 1189307.66 | 1250.00 | PFDoA | 0.150 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.83 | 13707.35 | < 0 | 161.0 | False | 13C2-PFTeDA | 959196.12 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.82 | 825.16 | 0.43 | 55.6 | True | 13C2-PFTeDA | 959196.12 | 1250.00 | PFTTrDA | 0.060 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 959196.12 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 959196.12 | 1250.00 | PFTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 159988.30 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 159988.30 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 176510.97 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 176510.97 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 266964.85 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 266964.85 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 846622.86 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 846622.86 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 846622.86 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 846622.86 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 846622.86 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 846622.86 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |



| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1646-FS1(0) | Injection Vial | 29 |
| Sample ID | CBD-AOA-SW03-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:20:45 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|-------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 446080.85 | 1752.07 | 445.0 | False | 13C3-PFBS | 115311.34 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 139644.50 | 1729.12 | 413.0 | False | 13C3-PFBS | 115311.34 | 1162.50 | PFBS | 0.313 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 2897359.27 | 9053.95 | 224.9 | False | 13C5-PFHxA | 368169.21 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 163887.46 | 7823.90 | 216.2 | False | 13C5-PFHxA | 368169.21 | 1250.00 | PFHxA | 0.057 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 1513583.79 | 4429.22 | 200.2 | False | 13C4-PFHpA | 463787.49 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.88 | 59183.64 | 5703.16 | 404.5 | False | 13C4-PFHpA | 463787.49 | 1250.00 | PFHpA | 0.039 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 15192992.55 | 35927.54 | 1359.5 | False | 13C3-PFHxS | 154512.08 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 5024181.03 | 31714.93 | 1168.5 | False | 13C3-PFHxS | 154512.08 | 1182.50 | PFHxS | 0.331 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.24 | 11808369.09 | 18606.62 | 553.8 | False | 13C8-PFOA | 814322.51 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.24 | 1204011.18 | 18574.46 | 1171.6 | False | 13C8-PFOA | 814322.51 | 1222.50 | PFOA | 0.102 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.61 | 4098460.32 | 6026.45 | 602.2 | False | 13C9-PFNA | 886538.26 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.61 | 1318201.83 | 5959.83 | 807.2 | False | 13C9-PFNA | 886538.26 | 1250.00 | PFNA | 0.322 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.58 | 21098626.21 | 43954.13 | 1072.8 | False | 13C8-PFOS | 152441.79 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.61 | 4086295.88 | 42997.45 | 1424.0 | False | 13C8-PFOS | 152441.79 | 1195.00 | PFOS | 0.194 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.96 | 129657.93 | 97.31 | 131.0 | False | 13C6-PFDA | 1004672.05 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.98 | 7609.07 | 126.68 | 83.4 | False | 13C6-PFDA | 1004672.05 | 1250.00 | PFDA | 0.059 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.29 | 213554.58 | 153.41 | 322.2 | False | 13C7-PFUnA | 1070600.23 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.29 | 12198.79 | 182.93 | 163.3 | False | 13C7-PFUnA | 1070600.23 | 1250.00 | PFUnA | 0.057 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.58 | 7512.46 | < 0 | 36.4 | False | 13C2-PFDoA | 1144312.92 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.59 | 1104.05 | < 0 | 33.9 | False | 13C2-PFDoA | 1144312.92 | 1250.00 | PFDoA | 0.147 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.84 | 13988.57 | < 0 | 209.4 | False | 13C2-PFTeDA | 807320.20 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.83 | 750.68 | 1.78 | 33.6 | False | 13C2-PFTeDA | 807320.20 | 1250.00 | PFTTrDA | 0.054 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 807320.20 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 807320.20 | 1250.00 | PFTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 152305.67 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 152305.67 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 171060.57 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 171060.57 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 242565.49 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 242565.49 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814322.51 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814322.51 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814322.51 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814322.51 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814322.51 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814322.51 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1647-FS1(0) | Injection Vial | 30 |
| Sample ID | CBD-AOA-SW04-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:31:12 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|-------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 384617.84 | 1363.11 | 363.3 | False | 13C3-PFBS | 125585.15 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 113246.10 | 1255.13 | 377.0 | False | 13C3-PFBS | 125585.15 | 1162.50 | PFBS | 0.294 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 2173063.68 | 6630.66 | 157.1 | False | 13C5-PFHxA | 375563.93 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 116332.29 | 5424.77 | 172.8 | False | 13C5-PFHxA | 375563.93 | 1250.00 | PFHxA | 0.054 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.88 | 892748.31 | 2469.45 | 166.5 | False | 13C4-PFHpA | 485402.82 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.88 | 35228.38 | 3215.11 | 206.1 | False | 13C4-PFHpA | 485402.82 | 1250.00 | PFHpA | 0.039 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.89 | 9982514.52 | 26273.33 | 1141.9 | False | 13C3-PFHxS | 138719.67 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.89 | 3313989.94 | 23298.94 | 1079.0 | False | 13C3-PFHxS | 138719.67 | 1182.50 | PFHxS | 0.332 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.24 | 3792685.62 | 6123.15 | 284.2 | False | 13C8-PFOA | 791420.14 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.24 | 385168.35 | 6121.04 | 443.5 | True | 13C8-PFOA | 791420.14 | 1222.50 | PFOA | 0.102 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.61 | 2602095.25 | 4253.68 | 584.9 | False | 13C9-PFNA | 796990.85 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.61 | 875267.92 | 4400.70 | 724.5 | False | 13C9-PFNA | 796990.85 | 1250.00 | PFNA | 0.336 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.59 | 21064676.88 | 51028.69 | 1122.2 | False | 13C8-PFOS | 131105.01 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.60 | 4273399.61 | 52287.96 | 2054.0 | False | 13C8-PFOS | 131105.01 | 1195.00 | PFOS | 0.203 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.96 | 69996.64 | 25.97 | 104.1 | False | 13C6-PFDA | 921159.98 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.96 | 4679.37 | 70.56 | 61.8 | True | 13C6-PFDA | 921159.98 | 1250.00 | PFDA | 0.067 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.28 | 179574.21 | 135.94 | 314.4 | False | 13C7-PFUnA | 975005.54 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.29 | 10195.48 | 166.85 | 162.0 | False | 13C7-PFUnA | 975005.54 | 1250.00 | PFUnA | 0.057 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.57 | 8067.94 | < 0 | 42.9 | False | 13C2-PFDoA | 1055763.47 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.59 | 957.59 | < 0 | 26.1 | False | 13C2-PFDoA | 1055763.47 | 1250.00 | PFDoA | 0.119 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.83 | 15958.81 | < 0 | 268.1 | False | 13C2-PFTeDA | 719942.57 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.84 | 1000.79 | 10.73 | 36.3 | False | 13C2-PFTeDA | 719942.57 | 1250.00 | PFTTrDA | 0.063 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 719942.57 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 719942.57 | 1250.00 | PFTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 142567.03 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 142567.03 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 160021.21 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 160021.21 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 244279.98 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 244279.98 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 791420.14 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 791420.14 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 791420.14 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 791420.14 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 791420.14 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 791420.14 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1651-FS1(0) | Injection Vial | 31 |
| Sample ID | CBD-AOA-SW02-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:41:40 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|-----------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 244298.47 | 778.15 | 150.8 | False | 13C3-PFBS | 132009.61 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.31 | 65713.75 | 636.03 | 253.1 | False | 13C3-PFBS | 132009.61 | 1162.50 | PFBS | 0.269 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 939499.39 | 2795.48 | 107.2 | False | 13C5-PFHxA | 377504.00 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 51102.01 | 2334.60 | 82.1 | False | 13C5-PFHxA | 377504.00 | 1250.00 | PFHxA | 0.054 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.88 | 424030.13 | 1114.17 | 124.0 | False | 13C4-PFHpA | 496411.13 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.88 | 17740.83 | 1549.71 | 118.6 | False | 13C4-PFHpA | 496411.13 | 1250.00 | PFHpA | 0.042 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.89 | 5451917.40 | 13071.15 | 768.9 | False | 13C3-PFHxS | 151844.00 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.89 | 1857086.33 | 11923.99 | 878.0 | False | 13C3-PFHxS | 151844.00 | 1182.50 | PFHxS | 0.341 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.23 | 1781687.77 | 2775.29 | 276.7 | False | 13C8-PFOA | 814086.29 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.23 | 193594.35 | 2996.28 | 380.0 | True | 13C8-PFOA | 814086.29 | 1222.50 | PFOA | 0.109 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.59 | 794288.13 | 1203.29 | 296.1 | False | 13C9-PFNA | 855865.79 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.59 | 270694.57 | 1264.18 | 470.9 | False | 13C9-PFNA | 855865.79 | 1250.00 | PFNA | 0.341 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.55 | 5927346.84 | 12414.86 | 663.7 | False | 13C8-PFOS | 151436.51 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.59 | 1092420.22 | 11558.68 | 1111.7 | False | 13C8-PFOS | 151436.51 | 1195.00 | PFOS | 0.184 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.94 | 75418.83 | 33.08 | 115.5 | False | 13C6-PFDA | 927978.59 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.94 | 5520.15 | 90.11 | 102.0 | False | 13C6-PFDA | 927978.59 | 1250.00 | PFDA | 0.073 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.26 | 280325.10 | 298.87 | 406.0 | False | 13C7-PFUnA | 857707.28 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.26 | 15807.90 | 303.63 | 228.1 | False | 13C7-PFUnA | 857707.28 | 1250.00 | PFUnA | 0.056 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.55 | 20207.06 | < 0 | 126.5 | False | 13C2-PFDoA | 961400.25 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.55 | 3341.53 | 1.23 | 83.9 | False | 13C2-PFDoA | 961400.25 | 1250.00 | PFDoA | 0.165 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.81 | 34766.17 | 1.92 | 447.4 | False | 13C2-PFTeDA | 727900.50 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.81 | 3372.29 | 73.79 | 85.3 | False | 13C2-PFTeDA | 727900.50 | 1250.00 | PFTTrDA | 0.097 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 727900.50 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 727900.50 | 1250.00 | PFTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 129821.35 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 129821.35 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 158091.50 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 158091.50 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 241742.25 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 241742.25 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814086.29 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814086.29 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814086.29 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814086.29 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814086.29 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 814086.29 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1654-FS1(0) | Injection Vial | 32 |
| Sample ID | CBD-AOA-SW01-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:52:08 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|-----------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 139619.35 | 535.43 | 144.8 | False | 13C3-PFBS | 103597.54 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 33684.05 | 371.43 | 148.5 | False | 13C3-PFBS | 103597.54 | 1162.50 | PFBS | 0.241 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 243508.72 | 825.02 | 42.4 | False | 13C5-PFHxA | 306475.22 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 12755.41 | 673.35 | 31.9 | False | 13C5-PFHxA | 306475.22 | 1250.00 | PFHxA | 0.052 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 147460.04 | 416.37 | 61.4 | False | 13C4-PFHpA | 424900.23 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.88 | 6029.61 | 575.56 | 53.3 | False | 13C4-PFHpA | 424900.23 | 1250.00 | PFHpA | 0.041 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 1971348.92 | 5663.69 | 434.3 | False | 13C3-PFHxS | 125773.07 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 651212.84 | 5043.62 | 536.4 | False | 13C3-PFHxS | 125773.07 | 1182.50 | PFHxS | 0.330 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.24 | 471078.21 | 762.32 | 134.5 | False | 13C8-PFOA | 756079.76 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.24 | 51029.93 | 857.90 | 126.4 | False | 13C8-PFOA | 756079.76 | 1222.50 | PFOA | 0.108 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.61 | 266874.37 | 435.90 | 189.4 | False | 13C9-PFNA | 784539.65 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.61 | 82024.79 | 414.88 | 226.9 | False | 13C9-PFNA | 784539.65 | 1250.00 | PFNA | 0.307 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.59 | 1194564.85 | 2949.78 | 317.3 | False | 13C8-PFOS | 127742.84 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.60 | 205898.50 | 2569.41 | 471.7 | False | 13C8-PFOS | 127742.84 | 1195.00 | PFOS | 0.172 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.97 | 36458.65 | < 0 | 76.3 | False | 13C6-PFDA | 750875.03 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.98 | 1931.65 | 14.14 | 34.9 | False | 13C6-PFDA | 750875.03 | 1250.00 | PFDA | 0.053 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.29 | 77226.63 | 70.93 | 191.5 | False | 13C7-PFUnA | 606869.23 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.30 | 6601.71 | 174.08 | 102.3 | False | 13C7-PFUnA | 606869.23 | 1250.00 | PFUnA | 0.085 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.58 | 6300.84 | < 0 | 41.2 | False | 13C2-PFDoA | 477857.91 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.57 | 872.44 | < 0 | 27.2 | False | 13C2-PFDoA | 477857.91 | 1250.00 | PFDoA | 0.138 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.83 | 12120.42 | 3.15 | 193.5 | False | 13C2-PFTeDA | 249335.81 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.83 | 1199.80 | 77.27 | 56.8 | True | 13C2-PFTeDA | 249335.81 | 1250.00 | PFTTrDA | 0.099 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 249335.81 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 249335.81 | 1250.00 | PFTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 85407.76 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 85407.76 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 89522.76 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 89522.76 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 215334.24 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 215334.24 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 756079.76 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 756079.76 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 756079.76 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 756079.76 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 756079.76 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 756079.76 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1661-FS1(0) | Injection Vial | 35 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:23:35 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|--------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 3308287.14 | 11950.74 | 1227.5 | False | 13C3-PFBS | 132335.45 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 1059102.99 | 12138.71 | 1209.2 | False | 13C3-PFBS | 132335.45 | 1162.50 | PFBS | 0.320 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 41522526.08 | 151185.59 | 685.7 | False | 13C5-PFHxA | 319227.24 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.57 | 2318129.21 | 128615.42 | 750.4 | False | 13C5-PFHxA | 319227.24 | 1250.00 | PFHxA | 0.056 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 14457712.86 | 75349.19 | 514.0 | False | 13C4-PFHpA | 263792.29 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.88 | 623957.99 | 106869.80 | 1054.3 | False | 13C4-PFHpA | 263792.29 | 1250.00 | PFHpA | 0.043 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 95783936.82 | 495566.50 | 2621.1 | False | 13C3-PFHxS | 70758.73 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 31370160.86 | 432508.59 | 2758.6 | False | 13C3-PFHxS | 70758.73 | 1182.50 | PFHxS | 0.328 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 55882414.48 | 139900.97 | 982.9 | False | 13C8-PFOA | 513467.55 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 6485705.69 | 158602.42 | 2346.8 | False | 13C8-PFOA | 513467.55 | 1222.50 | PFOA | 0.116 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.62 | 25628707.45 | 123724.02 | 1025.2 | False | 13C9-PFNA | 270375.94 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.62 | 8513104.64 | 126293.80 | 1307.3 | False | 13C9-PFNA | 270375.94 | 1250.00 | PFNA | 0.332 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.57 | 251016518.05 | 1767929.27 | 3177.1 | False | 13C8-PFOS | 45112.15 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.61 | 47164716.81 | 1677677.05 | 5997.7 | False | 13C8-PFOS | 45112.15 | 1195.00 | PFOS | 0.188 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.97 | 6393497.82 | 10559.97 | 901.6 | False | 13C6-PFDA | 808023.45 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.97 | 477031.07 | 13241.11 | 1283.6 | False | 13C6-PFDA | 808023.45 | 1250.00 | PFDA | 0.075 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.28 | 30936510.81 | 41697.25 | 2426.4 | False | 13C7-PFUnA | 845864.00 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.29 | 1754711.68 | 35571.27 | 2164.6 | False | 13C7-PFUnA | 845864.00 | 1250.00 | PFUnA | 0.057 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.58 | 363339.41 | 412.98 | 664.7 | False | 13C2-PFDoA | 1012033.35 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.58 | 37082.23 | 356.78 | 493.5 | False | 13C2-PFDoA | 1012033.35 | 1250.00 | PFDoA | 0.102 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.83 | 1646066.16 | 3521.35 | 2085.2 | False | 13C2-PFTeDA | 665883.78 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.82 | 111584.62 | 3241.95 | 1010.1 | True | 13C2-PFTeDA | 665883.78 | 1250.00 | PFTTrDA | 0.068 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 665883.78 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 665883.78 | 1250.00 | PFTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.02 | 54553.03 | 620.63 | 420.9 | False | d3-MeFOSAA | 152692.18 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.10 | 3061.00 | 30.66 | 58.9 | True | d3-MeFOSAA | 152692.18 | 1250.00 | NMeFOSAA | 0.056 | 1.118 | |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 114409.87 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 114409.87 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 257796.29 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 257796.29 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 513467.55 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 513467.55 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 513467.55 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 513467.55 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 513467.55 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 513467.55 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1668-FS1(0) | Injection Vial | 36 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:34:03 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|--------------|--------------|-----------|----------|--------------|-----------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | 1.32 | 1092874.21 | 4333.19 | 560.8 | False | 13C3-PFBS | 118579.93 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | 1.32 | 272462.42 | 3394.57 | 663.4 | False | 13C3-PFBS | 118579.93 | 1162.50 | PFBS | 0.249 | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.56 | 15036311.75 | 49533.43 | 473.9 | False | 13C5-PFHxA | 352359.52 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.56 | 889059.99 | 44647.11 | 498.2 | False | 13C5-PFHxA | 352359.52 | 1250.00 | PFHxA | 0.059 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | 1.89 | 15766122.16 | 57983.27 | 606.4 | False | 13C4-PFHpA | 373729.88 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | 1.89 | 624551.69 | 75485.04 | 1347.7 | False | 13C4-PFHpA | 373729.88 | 1250.00 | PFHpA | 0.040 | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.90 | 33271306.66 | 104852.75 | 1244.9 | False | 13C3-PFHxS | 116100.39 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.90 | 11968483.74 | 100562.97 | 1851.2 | False | 13C3-PFHxS | 116100.39 | 1182.50 | PFHxS | 0.360 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.25 | 26145034.27 | 42110.91 | 616.0 | False | 13C8-PFOA | 797578.66 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.25 | 2854835.56 | 44951.66 | 1609.0 | True | 13C8-PFOA | 797578.66 | 1222.50 | PFOA | 0.109 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.62 | 6991595.20 | 20050.38 | 796.6 | False | 13C9-PFNA | 454989.55 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.62 | 2395251.76 | 21112.26 | 1157.0 | False | 13C9-PFNA | 454989.55 | 1250.00 | PFNA | 0.343 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.61 | 101476998.73 | 358566.24 | 1728.4 | False | 13C8-PFOS | 89915.30 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.61 | 22243317.34 | 396950.50 | 3715.2 | False | 13C8-PFOS | 89915.30 | 1195.00 | PFOS | 0.219 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | 2.97 | 1565293.85 | 2368.75 | 450.3 | False | 13C6-PFDA | 860600.69 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | 2.97 | 108375.76 | 2790.02 | 677.9 | False | 13C6-PFDA | 860600.69 | 1250.00 | PFDA | 0.069 | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.29 | 29855970.90 | 55612.29 | 2473.1 | False | 13C7-PFUnA | 612337.24 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.29 | 1968555.40 | 55132.20 | 2215.5 | False | 13C7-PFUnA | 612337.24 | 1250.00 | PFUnA | 0.066 | 0.062 | ✓ |
| PFDaA_1 | 613.0 / 569.0 | 3.58 | 247551.70 | 601.01 | 375.0 | False | 13C2-PFDaA | 485847.03 | 1250.00 | PFDaA | | | |
| PFDaA_2 | 613.0 / 319.0 | 3.58 | 22831.19 | 467.75 | 302.6 | False | 13C2-PFDaA | 485847.03 | 1250.00 | PFDaA | 0.092 | 0.117 | ✓ |
| PFTeDA_1 | 663.0 / 619.0 | 3.84 | 564138.46 | 5096.52 | 1163.4 | False | 13C2-PFTeDA | 158599.40 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 663.0 / 169.0 | 3.83 | 36768.23 | 4491.34 | 504.3 | True | 13C2-PFTeDA | 158599.40 | 1250.00 | PFTeDA | 0.065 | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 158599.40 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 158599.40 | 1250.00 | PFTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.04 | 8209.99 | 188.70 | 746.6 | False | d3-MeFOSAA | 103057.77 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.00 | 1497.01 | 22.25 | 27.4 | False | d3-MeFOSAA | 103057.77 | 1250.00 | NMeFOSAA | 0.182 | 1.118 | |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 74331.55 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 74331.55 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 265985.39 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 265985.39 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 797578.66 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 797578.66 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 797578.66 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 797578.66 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11CI-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 797578.66 | 1222.50 | 11CI-pf3OUdS | | | |
| 11CI-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 797578.66 | 1222.50 | 11CI-pf3OUdS | N/A | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD80 IB | Injection Vial | 4 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 9:46:09 AM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|----------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 259453.16 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 259453.16 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1088295.96 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1088295.96 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1046423.53 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1046423.53 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 209604.51 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 209604.51 | 1182.50 | PFHxS | N/A | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1268375.95 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1268375.95 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1067655.44 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1067655.44 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOS | 177790.72 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOS | 177790.72 | 1195.00 | PFOS | N/A | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1117174.74 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1117174.74 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1016010.93 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1016010.93 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | 3.67 | 14150.04 | < 0 | 65.6 | False | 13C2-PFDoA | 1213131.15 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | 3.68 | 1846.04 | < 0 | 87.6 | False | 13C2-PFDoA | 1213131.15 | 1250.00 | PFDoA | 0.130 | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | 3.94 | 9800.79 | < 0 | 141.0 | False | 13C2-PFTTeDA | 1100692.64 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | 3.94 | 639.53 | < 0 | 46.4 | False | 13C2-PFTTeDA | 1100692.64 | 1250.00 | PFTTrDA | 0.065 | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1100692.64 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1100692.64 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.20 | 2989.59 | 99.48 | 15392.8 | True | d3-MeFOSAA | 133929.72 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.19 | 5099.21 | 58.11 | 700.2 | True | d3-MeFOSAA | 133929.72 | 1250.00 | NMeFOSAA | 1.706 | 1.118 | |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 133582.16 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 133582.16 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 409675.00 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 409675.00 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | 1.97 | 6705.16 | < 0 | 118.3 | False | 13C8-PFOA | 1268375.95 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1268375.95 | 1222.50 | ADONA | N/A | 0.015 | |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1268375.95 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1268375.95 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11CI-pf3OUdS_1 | 631.0 / 451.0 | 3.53 | 1996.13 | 2.10 | 47.7 | False | 13C8-PFOA | 1268375.95 | 1222.50 | 11CI-pf3OUdS | | | |
| 11CI-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1268375.95 | 1222.50 | 11CI-pf3OUdS | N/A | 0.005 | |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1644-FS1-D(3) | Injection Vial | 7 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:34:06 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|-------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 235109.90 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 235109.90 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 867651.41 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 867651.41 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1012196.00 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1012196.00 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.94 | 9910759.04 | 17090.42 | 1705.3 | False | 13C3-PFHxS | 211398.29 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.94 | 3507523.60 | 16179.29 | 1635.0 | False | 13C3-PFHxS | 211398.29 | 1182.50 | PFHxS | 0.354 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1349104.69 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1349104.69 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.67 | 7968944.89 | 9855.96 | 1163.8 | False | 13C9-PFNA | 1054551.24 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.67 | 2747536.99 | 10446.39 | 1525.7 | False | 13C9-PFNA | 1054551.24 | 1250.00 | PFNA | 0.345 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.66 | 39562386.78 | 71889.44 | 2025.4 | False | 13C8-PFOS | 174803.14 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.66 | 8093357.77 | 74279.49 | 3031.6 | False | 13C8-PFOS | 174803.14 | 1195.00 | PFOS | 0.205 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1324450.76 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1324450.76 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1190169.16 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1190169.16 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1513055.83 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1513055.83 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1307872.87 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1307872.87 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1307872.87 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1307872.87 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 165195.60 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 165195.60 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 174609.71 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 174609.71 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 345756.34 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 345756.34 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1349104.69 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1349104.69 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1349104.69 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1349104.69 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1349104.69 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1349104.69 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |



| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1645-FS1-D(3) | Injection Vial | 9 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:55:01 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|-------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 244957.79 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 244957.79 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 789420.05 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 789420.05 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 953167.42 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 953167.42 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.92 | 9925043.52 | 16090.75 | 1842.0 | False | 13C3-PFHxS | 224794.30 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.92 | 3660579.68 | 15878.92 | 1697.7 | False | 13C3-PFHxS | 224794.30 | 1182.50 | PFHxS | 0.369 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1338295.58 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1338295.58 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.64 | 9256689.84 | 11352.22 | 1160.0 | False | 13C9-PFNA | 1063623.68 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.65 | 3147960.20 | 11867.36 | 1855.7 | False | 13C9-PFNA | 1063623.68 | 1250.00 | PFNA | 0.340 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.64 | 43489507.56 | 83840.14 | 2215.1 | False | 13C8-PFOS | 164771.78 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.64 | 8849903.30 | 86170.55 | 2587.6 | False | 13C8-PFOS | 164771.78 | 1195.00 | PFOS | 0.203 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1279758.98 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1279758.98 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1153136.83 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1153136.83 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1451559.67 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1451559.67 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1235797.18 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1235797.18 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1235797.18 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1235797.18 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 171007.36 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 171007.36 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 166985.69 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 166985.69 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 377127.03 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 377127.03 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1338295.58 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1338295.58 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1338295.58 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1338295.58 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1338295.58 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1338295.58 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1645-FS1-D(7) | Injection Vial | 11 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:16:19 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 292333.08 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 292333.08 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1353219.59 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1353219.59 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1335640.42 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1335640.42 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 245860.20 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 245860.20 | 1182.50 | PFHxS | N/A | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1610527.75 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1610527.75 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1476237.23 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1476237.23 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.63 | 8557375.31 | 11808.19 | 1612.5 | False | 13C8-PFOS | 229842.73 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.63 | 1822113.72 | 12704.32 | 7242.0 | False | 13C8-PFOS | 229842.73 | 1195.00 | PFOS | 0.213 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1389171.85 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1389171.85 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1191311.27 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1191311.27 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1470232.73 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1470232.73 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1298097.47 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1298097.47 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1298097.47 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1298097.47 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 179125.02 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 179125.02 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 170031.49 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 170031.49 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 407313.49 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 407313.49 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1610527.75 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1610527.75 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1610527.75 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1610527.75 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1610527.75 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1610527.75 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1646-FS1-D(3) | Injection Vial | 12 |
| Sample ID | CBD-AOA-SW03-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:26:46 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 222398.75 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 222398.75 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 810127.33 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 810127.33 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 952684.88 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 952684.88 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.92 | 4440089.05 | 7206.93 | 1173.9 | False | 13C3-PFHxS | 223246.96 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.92 | 1507048.98 | 6578.13 | 1336.2 | False | 13C3-PFHxS | 223246.96 | 1182.50 | PFHxS | 0.339 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1384923.74 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1384923.74 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1328506.30 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1328506.30 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.61 | 5444920.18 | 8688.27 | 964.3 | False | 13C8-PFOS | 198632.04 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.63 | 988996.48 | 7972.73 | 1254.6 | False | 13C8-PFOS | 198632.04 | 1195.00 | PFOS | 0.182 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1226073.52 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1226073.52 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1201827.81 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1201827.81 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1362772.07 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1362772.07 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1204357.66 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1204357.66 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1204357.66 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1204357.66 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 169440.33 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 169440.33 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 158891.59 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 158891.59 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 373520.61 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 373520.61 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1384923.74 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1384923.74 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1384923.74 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1384923.74 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1384923.74 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1384923.74 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1647-FS1-D(3) | Injection Vial | 13 |
| Sample ID | CBD-AOA-SW04-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:37:13 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 244637.31 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 244637.31 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 832415.51 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 832415.51 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1060171.23 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1060171.23 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 214167.09 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 214167.09 | 1182.50 | PFHxS | N/A | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1372151.41 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1372151.41 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1384105.06 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1384105.06 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.64 | 5382688.25 | 8015.09 | 1132.4 | False | 13C8-PFOS | 212810.11 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.64 | 1132125.80 | 8519.68 | 1590.7 | False | 13C8-PFOS | 212810.11 | 1195.00 | PFOS | 0.210 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1342579.07 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1342579.07 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1222193.47 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1222193.47 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1519909.97 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1519909.97 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1247837.49 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1247837.49 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1247837.49 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1247837.49 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 165035.17 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 165035.17 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 172346.83 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 172346.83 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 369287.06 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 369287.06 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1372151.41 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1372151.41 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1372151.41 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1372151.41 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1372151.41 | 1222.50 | 11Cl-pf3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1372151.41 | 1222.50 | 11Cl-pf3OUdS | N/A | 0.005 | ✓ |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1661-FS1-D(3) | Injection Vial | 14 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:47:41 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|-------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 255054.28 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 255054.28 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | 1.57 | 17667530.46 | 24016.09 | 725.3 | False | 13C5-PFHxA | 852111.27 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | 1.58 | 1023101.09 | 21212.04 | 811.1 | False | 13C5-PFHxA | 852111.27 | 1250.00 | PFHxA | 0.058 | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 802876.57 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 802876.57 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.91 | 39025662.34 | 80520.80 | 2597.8 | False | 13C3-PFHxS | 177293.07 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.91 | 13034912.16 | 71719.24 | 2601.7 | False | 13C3-PFHxS | 177293.07 | 1182.50 | PFHxS | 0.334 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.27 | 21686102.04 | 21390.86 | 1012.0 | False | 13C8-PFOA | 1301202.77 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.27 | 2700974.11 | 26072.76 | 2122.4 | False | 13C8-PFOA | 1301202.77 | 1222.50 | PFOA | 0.125 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | 2.64 | 12102155.49 | 19439.95 | 1315.2 | False | 13C9-PFNA | 812287.88 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | 2.64 | 4298403.78 | 21221.83 | 1852.5 | False | 13C9-PFNA | 812287.88 | 1250.00 | PFNA | 0.355 | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.63 | 98419248.92 | 227777.40 | 3201.9 | False | 13C8-PFOS | 137274.51 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.63 | 19081606.01 | 223039.04 | 4169.8 | False | 13C8-PFOS | 137274.51 | 1195.00 | PFOS | 0.194 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1267001.35 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1267001.35 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.31 | 7269695.86 | 7138.02 | 1703.4 | False | 13C7-PFUnA | 1151187.07 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.31 | 394042.95 | 5858.92 | 1552.2 | False | 13C7-PFUnA | 1151187.07 | 1250.00 | PFUnA | 0.054 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1492838.55 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1492838.55 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1273475.84 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1273475.84 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1273475.84 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1273475.84 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 163172.10 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 163172.10 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 161710.22 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 161710.22 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 394513.87 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 394513.87 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1301202.77 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1301202.77 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1301202.77 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1301202.77 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1301202.77 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1301202.77 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1661-FS1-D(5) | Injection Vial | 17 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:19:06 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|-------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 326085.08 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 326085.08 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1315554.48 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1315554.48 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1237913.05 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1237913.05 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.92 | 8366805.88 | 12495.92 | 2293.0 | False | 13C3-PFHxS | 243690.89 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.92 | 2867959.01 | 11473.86 | 2298.1 | False | 13C3-PFHxS | 243690.89 | 1182.50 | PFHxS | 0.343 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.27 | 5000245.42 | 3955.35 | 880.2 | False | 13C8-PFOA | 1609699.22 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.27 | 560136.32 | 4379.52 | 1163.0 | False | 13C8-PFOA | 1609699.22 | 1222.50 | PFOA | 0.112 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1292529.69 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1292529.69 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.63 | 23667296.23 | 36318.73 | 2964.6 | False | 13C8-PFOS | 206929.83 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.63 | 5098220.81 | 39518.21 | 3706.8 | False | 13C8-PFOS | 206929.83 | 1195.00 | PFOS | 0.215 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1333541.31 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1333541.31 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1319604.84 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1319604.84 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1458965.65 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1458965.65 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1297760.93 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1297760.93 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1297760.93 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1297760.93 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 182486.57 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 182486.57 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 164363.38 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 164363.38 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 423884.72 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 423884.72 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1609699.22 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1609699.22 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1609699.22 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1609699.22 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1609699.22 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1609699.22 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1668-FS1-D(3) | Injection Vial | 19 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:40:03 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|-------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 240424.62 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 240424.62 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 840704.85 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 840704.85 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 985658.29 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 985658.29 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | 1.91 | 9652473.94 | 16138.47 | 1584.7 | False | 13C3-PFHxS | 217977.36 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | 1.91 | 3304412.34 | 14781.68 | 1804.0 | False | 13C3-PFHxS | 217977.36 | 1182.50 | PFHxS | 0.342 | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | 2.26 | 7184221.01 | 7070.22 | 528.5 | False | 13C8-PFOA | 1299415.63 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | 2.26 | 804466.97 | 7783.64 | 1275.6 | False | 13C8-PFOA | 1299415.63 | 1222.50 | PFOA | 0.112 | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1113360.07 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1113360.07 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.62 | 29319362.15 | 53818.58 | 2135.2 | False | 13C8-PFOS | 173025.73 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.63 | 6559963.15 | 60821.63 | 4701.4 | False | 13C8-PFOS | 173025.73 | 1195.00 | PFOS | 0.224 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1220293.71 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1220293.71 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | 3.30 | 6406097.63 | 6268.70 | 1982.0 | False | 13C7-PFUnA | 1153459.86 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | 3.31 | 385038.39 | 5713.45 | 2192.9 | False | 13C7-PFUnA | 1153459.86 | 1250.00 | PFUnA | 0.060 | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1244035.28 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1244035.28 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 1146791.63 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 1146791.63 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 1146791.63 | 1250.00 | PFTeDA | | | |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTeDA | 1146791.63 | 1250.00 | PFTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 155316.31 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 155316.31 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 143809.03 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 143809.03 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 376400.51 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 376400.51 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1299415.63 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1299415.63 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1299415.63 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1299415.63 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1299415.63 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1299415.63 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1668-FS1-D(5) | Injection Vial | 20 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:50:31 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 306871.64 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 306871.64 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1333246.24 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1333246.24 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1325783.36 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1325783.36 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 255566.47 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 255566.47 | 1182.50 | PFHxS | N/A | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1633844.39 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1633844.39 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1426657.61 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1426657.61 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.59 | 9708390.48 | 13786.63 | 1623.2 | False | 13C8-PFOS | 223396.12 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.59 | 2002385.21 | 14366.34 | 2310.3 | False | 13C8-PFOS | 223396.12 | 1195.00 | PFOS | 0.206 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1416752.47 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1416752.47 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1361987.34 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1361987.34 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1606897.99 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1606897.99 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1400515.95 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1400515.95 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1400515.95 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1400515.95 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 182685.52 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 182685.52 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 184240.77 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 184240.77 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 413213.35 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 413213.35 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1633844.39 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1633844.39 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1633844.39 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1633844.39 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1633844.39 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1633844.39 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1644-FS1-D(7) | Injection Vial | 2 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 5:58:41 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 309772.25 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 309772.25 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1261636.50 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1261636.50 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1242720.21 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1242720.21 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 227396.29 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 227396.29 | 1182.50 | PFHxS | N/A | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1413002.93 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1413002.93 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1384161.31 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1384161.31 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.65 | 8207131.73 | 12890.31 | 1783.0 | False | 13C8-PFOS | 201961.21 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.65 | 1728395.38 | 13715.92 | 3290.6 | False | 13C8-PFOS | 201961.21 | 1195.00 | PFOS | 0.211 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1329184.23 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1329184.23 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1212307.37 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1212307.37 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1449592.77 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1449592.77 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1253694.67 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1253694.67 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1253694.67 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1253694.67 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 157080.28 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 157080.28 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 145834.02 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 145834.02 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 440187.84 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 440187.84 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1413002.93 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1413002.93 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1413002.93 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1413002.93 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1413002.93 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1413002.93 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |



| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1661-FS1-D(9) | Injection Vial | 3 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 6:09:10 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|----------------|----------------|------|------------|--------------|-----------|----------|--------------|------------|-----------------|--------------|-----------|--------------------|----------|
| PFBS_1 | 298.9 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 303362.22 | 1162.50 | PFBS | | | |
| PFBS_2 | 298.9 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFBS | 303362.22 | 1162.50 | PFBS | N/A | 0.319 | ✓ |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1301739.93 | 1250.00 | PFHxA | | | |
| PFHxA_2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | True | 13C5-PFHxA | 1301739.93 | 1250.00 | PFHxA | N/A | 0.063 | ✓ |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1245227.08 | 1250.00 | PFHpA | | | |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C4-PFHpA | 1245227.08 | 1250.00 | PFHpA | N/A | 0.031 | ✓ |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 235259.80 | 1182.50 | PFHxS | | | |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | True | 13C3-PFHxS | 235259.80 | 1182.50 | PFHxS | N/A | 0.348 | ✓ |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1536948.92 | 1222.50 | PFOA | | | |
| PFOA_2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1536948.92 | 1222.50 | PFOA | N/A | 0.097 | ✓ |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1381134.11 | 1250.00 | PFNA | | | |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C9-PFNA | 1381134.11 | 1250.00 | PFNA | N/A | 0.324 | ✓ |
| PFOS_1 | 499.0 / 80.0 | 2.64 | 7195653.99 | 10328.16 | 1971.5 | False | 13C8-PFOS | 220906.33 | 1195.00 | PFOS | | | |
| PFOS_2 | 499.0 / 99.0 | 2.64 | 1507420.75 | 10932.99 | 2854.3 | False | 13C8-PFOS | 220906.33 | 1195.00 | PFOS | 0.209 | 0.197 | ✓ |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1247642.96 | 1250.00 | PFDA | | | |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | True | 13C6-PFDA | 1247642.96 | 1250.00 | PFDA | N/A | 0.058 | ✓ |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1223550.53 | 1250.00 | PFUnA | | | |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | True | 13C7-PFUnA | 1223550.53 | 1250.00 | PFUnA | N/A | 0.062 | ✓ |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1447909.60 | 1250.00 | PFDoA | | | |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | True | 13C2-PFDoA | 1447909.60 | 1250.00 | PFDoA | N/A | 0.117 | ✓ |
| PFTTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1268192.08 | 1250.00 | PFTTrDA | | | |
| PFTTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1268192.08 | 1250.00 | PFTTrDA | N/A | 0.070 | ✓ |
| PFTTeDA_1 | 713.0 / 669.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1268192.08 | 1250.00 | PFTTeDA | | | |
| PFTTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C2-PFTTeDA | 1268192.08 | 1250.00 | PFTTeDA | N/A | 0.056 | ✓ |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 145837.40 | 1250.00 | NMeFOSAA | | | |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | True | d3-MeFOSAA | 145837.40 | 1250.00 | NMeFOSAA | N/A | 1.118 | ✓ |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 150091.70 | 1250.00 | NEtFOSAA | | | |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | True | d5-EtFOSAA | 150091.70 | 1250.00 | NEtFOSAA | N/A | 0.060 | ✓ |
| HFPO-DA_1 | 285.0 / 169.0 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 438927.91 | 1250.00 | HFPO-DA | | | |
| HFPO-DA_2 | 285.0 / 118.8 | N/A | N/A | N/A | N/A | True | 13C3-HFPO-DA | 438927.91 | 1250.00 | HFPO-DA | N/A | 0.021 | ✓ |
| ADONA_1 | 377.0 / 251.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1536948.92 | 1222.50 | ADONA | | | |
| ADONA_2 | 377.0 / 85.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1536948.92 | 1222.50 | ADONA | N/A | 0.015 | ✓ |
| 9CI-PF3ONS_1 | 531.0 / 351.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1536948.92 | 1222.50 | 9CI-PF3ONS | | | |
| 9CI-PF3ONS_2 | 531.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1536948.92 | 1222.50 | 9CI-PF3ONS | N/A | 0.010 | ✓ |
| 11Cl-pf3OUdS_1 | 631.0 / 451.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1536948.92 | 1222.50 | 11Cl-PF3OUdS | | | |
| 11Cl-pf3OUdS_2 | 631.0 / 83.0 | N/A | N/A | N/A | N/A | True | 13C8-PFOA | 1536948.92 | 1222.50 | 11Cl-PF3OUdS | N/A | 0.005 | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD80 IB | Injection Vial | 8 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:48:46 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|-----------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1209794.83 | 1259.88 | 3848.9 | False | 13C2-PFDA | 959338.09 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 146010.83 | 1340.21 | 942.8 | False | 13C4-PFOS | 164880.32 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 126922.18 | 1306.41 | 1653.9 | False | 13C4-PFOS | 164880.32 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1115893.79 | 1282.61 | 6564.0 | False | 13C2-PFOA | 681233.61 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1143051.39 | 1331.46 | 9856.7 | False | 13C2-PFOA | 681233.61 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1280550.40 | 1276.00 | 9585.2 | False | 13C2-PFOA | 681233.61 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.62 | 1188221.78 | 1385.91 | 7470.1 | False | 13C4-PFOS | 164880.32 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 1060795.68 | 1246.23 | 5299.4 | False | 13C2-PFDA | 959338.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 983100.30 | 1276.51 | 3885.3 | False | 13C2-PFDA | 959338.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.08 | 1122189.49 | 1226.14 | 4266.5 | False | 13C2-PFDA | 959338.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 241329.20 | 1161.52 | 7478.3 | False | 13C4-PFOS | 164880.32 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 201877.07 | 1271.22 | 4246.8 | False | 13C4-PFOS | 164880.32 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.62 | 174603.19 | 1198.11 | 1092.6 | False | 13C4-PFOS | 164880.32 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 394199.73 | 1090.77 | 4255.3 | False | 13C2-PFOA | 681233.61 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD80 IB | Injection Vial | 4 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 1:33:00 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.62 | 1292459.60 | 1152.15 | 4191.8 | False | 13C2-PFDA | 1120719.13 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.15 | 168139.27 | 1305.82 | 942.7 | False | 13C4-PFOS | 194868.48 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.31 | 150122.22 | 1307.42 | 959.4 | False | 13C4-PFOS | 194868.48 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 1239957.52 | 1309.56 | 5427.6 | False | 13C2-PFOA | 741393.25 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.90 | 1156654.42 | 1237.98 | 9805.2 | False | 13C2-PFOA | 741393.25 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.27 | 1462592.09 | 1339.14 | 1486.5 | False | 13C2-PFOA | 741393.25 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.64 | 1281748.37 | 1264.93 | 4248.1 | False | 13C4-PFOS | 194868.48 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 3.00 | 1309539.92 | 1316.92 | 3779.2 | False | 13C2-PFDA | 1120719.13 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.32 | 1119648.95 | 1244.46 | 4380.3 | False | 13C2-PFDA | 1120719.13 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.11 | 1299221.86 | 1215.16 | 4636.5 | False | 13C2-PFDA | 1120719.13 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 259806.56 | 1058.02 | 9526.9 | False | 13C4-PFOS | 194868.48 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.91 | 220455.98 | 1174.58 | 5764.7 | False | 13C4-PFOS | 194868.48 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.64 | 193299.41 | 1122.28 | 1176.8 | False | 13C4-PFOS | 194868.48 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.67 | 427719.44 | 1087.48 | 4806.8 | False | 13C2-PFOA | 741393.25 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | DB253PB-FS(0) | Injection Vial | 25 |
| Sample ID | Procedural Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:38:54 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1659191.24 | 1188.56 | 4136.7 | False | 13C2-PFDA | 1394650.75 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 271276.26 | 1867.10 | 611.7 | True | 13C4-PFOS | 219887.49 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.28 | 239068.17 | 1845.15 | 689.9 | True | 13C4-PFOS | 219887.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1700555.18 | 1263.94 | 6323.4 | False | 13C2-PFOA | 1053494.45 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 1673393.35 | 1260.45 | 6615.7 | False | 13C2-PFOA | 1053494.45 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 1933317.49 | 1245.72 | 10362.3 | False | 13C2-PFOA | 1053494.45 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.61 | 1703985.60 | 1490.29 | 10498.8 | False | 13C4-PFOS | 219887.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.97 | 1595203.06 | 1289.10 | 5505741.9 | False | 13C2-PFDA | 1394650.75 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.29 | 1525907.49 | 1362.89 | 8929.2 | False | 13C2-PFDA | 1394650.75 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 1561136.88 | 1173.34 | 4494.3 | False | 13C2-PFDA | 1394650.75 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 363269.56 | 1311.03 | 5657.3 | False | 13C4-PFOS | 219887.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 298815.62 | 1410.93 | 1964.0 | False | 13C4-PFOS | 219887.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 247136.78 | 1271.60 | 1315.8 | False | 13C4-PFOS | 219887.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 453079.36 | 810.69 | 3545.3 | False | 13C2-PFOA | 1053494.45 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|---------------------------|------------------|----------------------------|
| Sample Name | DB254LCS-FS(0) | Injection Vial | 26 |
| Sample ID | Laboratory Control Sample | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:49:21 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.55 | 1388750.34 | 1033.30 | 4329.3 | False | 13C2-PFDA | 1342728.67 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.09 | 226286.82 | 1516.66 | 1163.1 | False | 13C4-PFOS | 225801.42 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.25 | 182952.80 | 1375.07 | 1169.7 | False | 13C4-PFOS | 225801.42 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 1295199.77 | 993.25 | 5302.2 | False | 13C2-PFOA | 1021050.55 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.87 | 1155531.93 | 898.03 | 4757.8 | False | 13C2-PFOA | 1021050.55 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.23 | 1523960.09 | 1013.16 | 9518.4 | False | 13C2-PFOA | 1021050.55 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.59 | 1392527.44 | 1186.00 | 6132.0 | False | 13C4-PFOS | 225801.42 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.94 | 1319573.64 | 1107.60 | 3926.1 | False | 13C2-PFDA | 1342728.67 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.26 | 1262235.71 | 1170.98 | 4480.6 | False | 13C2-PFDA | 1342728.67 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.03 | 1292357.14 | 1008.88 | 4168.2 | False | 13C2-PFDA | 1342728.67 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 303073.75 | 1065.14 | 4798.9 | False | 13C4-PFOS | 225801.42 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.88 | 246206.96 | 1132.08 | 2495.2 | False | 13C4-PFOS | 225801.42 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.59 | 193354.92 | 968.82 | 930.8 | False | 13C4-PFOS | 225801.42 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.64 | 431351.74 | 796.34 | 7406.1 | False | 13C2-PFOA | 1021050.55 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1644-FS1(0) | Injection Vial | 27 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:59:49 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|-----------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.57 | 1189177.09 | 1193.89 | 3901.1 | False | 13C2-PFDA | 995114.57 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.10 | 154497.35 | 2520.08 | 801.6 | False | 13C4-PFOS | 92781.66 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.27 | 166335.01 | 3042.52 | 1019.9 | False | 13C4-PFOS | 92781.66 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 378385.42 | 480.86 | 795.6 | False | 13C2-PFOA | 616146.68 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 440729.05 | 567.60 | 829.0 | False | 13C2-PFOA | 616146.68 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 868168.40 | 956.47 | 1266.7 | False | 13C2-PFOA | 616146.68 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.61 | 458519.78 | 950.39 | 1559.2 | False | 13C4-PFOS | 92781.66 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.95 | 954631.56 | 1081.18 | 2490.7 | False | 13C2-PFDA | 995114.57 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.28 | 1029744.71 | 1289.00 | 3122.1 | False | 13C2-PFDA | 995114.57 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.05 | 954701.33 | 1005.64 | 4488.8 | False | 13C2-PFDA | 995114.57 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 114259.89 | 977.27 | 1190.1 | False | 13C4-PFOS | 92781.66 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 135928.50 | 1521.08 | 550.4 | False | 13C4-PFOS | 92781.66 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.60 | 92574.91 | 1128.87 | 318.5 | False | 13C4-PFOS | 92781.66 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 266394.71 | 814.99 | 708.1 | False | 13C2-PFOA | 616146.68 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1645-FS1(0) | Injection Vial | 28 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:10:17 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.58 | 1189307.66 | 1108.45 | 3755.6 | False | 13C2-PFDA | 1071934.99 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 158751.90 | 2426.80 | 1117.7 | False | 13C4-PFOS | 99001.31 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.27 | 176195.66 | 3020.41 | 862.7 | False | 13C4-PFOS | 99001.31 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 334406.39 | 450.57 | 690.6 | False | 13C2-PFOA | 581139.48 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 474138.38 | 647.42 | 994.9 | False | 13C2-PFOA | 581139.48 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 846622.86 | 988.92 | 1488.9 | False | 13C2-PFOA | 581139.48 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.61 | 489557.64 | 950.97 | 933.2 | False | 13C4-PFOS | 99001.31 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.96 | 1093138.67 | 1149.33 | 3047.7 | False | 13C2-PFDA | 1071934.99 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.29 | 1053381.06 | 1224.09 | 3646.3 | False | 13C2-PFDA | 1071934.99 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.06 | 959196.12 | 937.96 | 3541.8 | False | 13C2-PFDA | 1071934.99 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 127433.03 | 1021.47 | 1316.2 | False | 13C4-PFOS | 99001.31 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 137578.04 | 1442.82 | 632.3 | False | 13C4-PFOS | 99001.31 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 81092.02 | 926.73 | 278.2 | False | 13C4-PFOS | 99001.31 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 266964.85 | 865.94 | 738.3 | False | 13C2-PFOA | 581139.48 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1646-FS1(0) | Injection Vial | 29 |
| Sample ID | CBD-AOA-SW03-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:20:45 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.58 | 1144312.92 | 1136.75 | 4875.6 | False | 13C2-PFDA | 1005700.05 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 151761.04 | 1561.70 | 977.4 | False | 13C4-PFOS | 147068.34 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.27 | 170931.17 | 1972.48 | 868.2 | False | 13C4-PFOS | 147068.34 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 368169.21 | 446.52 | 657.5 | False | 13C2-PFOA | 645621.12 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 463787.49 | 570.03 | 1066.6 | False | 13C2-PFOA | 645621.12 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 814322.51 | 856.19 | 1126.8 | False | 13C2-PFOA | 645621.12 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.60 | 886538.26 | 1159.27 | 1588.8 | False | 13C4-PFOS | 147068.34 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.96 | 1004672.05 | 1125.88 | 2433.6 | False | 13C2-PFDA | 1005700.05 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.28 | 1070600.23 | 1326.04 | 2886.2 | False | 13C2-PFDA | 1005700.05 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 807320.20 | 841.44 | 4199.8 | False | 13C2-PFDA | 1005700.05 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 115311.34 | 622.21 | 1086.6 | False | 13C4-PFOS | 147068.34 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 154512.08 | 1090.80 | 584.4 | False | 13C4-PFOS | 147068.34 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.60 | 152441.79 | 1172.73 | 356.9 | False | 13C4-PFOS | 147068.34 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 242565.49 | 708.21 | 613.3 | False | 13C2-PFOA | 645621.12 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1647-FS1(0) | Injection Vial | 30 |
| Sample ID | CBD-AOA-SW04-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:31:12 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|-----------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.58 | 1055763.47 | 1070.34 | 2999.6 | False | 13C2-PFDA | 985451.02 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 142598.75 | 1366.71 | 703.5 | False | 13C4-PFOS | 157905.06 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.27 | 159860.07 | 1718.13 | 1450.4 | False | 13C4-PFOS | 157905.06 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 375563.93 | 448.60 | 545.9 | False | 13C2-PFOA | 655528.85 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.87 | 485402.82 | 587.58 | 1080.9 | False | 13C2-PFOA | 655528.85 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.23 | 791420.14 | 819.53 | 1376.3 | False | 13C2-PFOA | 655528.85 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.60 | 796990.85 | 970.65 | 2020.7 | False | 13C4-PFOS | 157905.06 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.95 | 921159.98 | 1053.51 | 2051.6 | False | 13C2-PFDA | 985451.02 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.28 | 975005.54 | 1232.45 | 2606.3 | False | 13C2-PFDA | 985451.02 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.06 | 719942.57 | 765.79 | 3850.7 | False | 13C2-PFDA | 985451.02 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 125585.15 | 631.14 | 813.3 | False | 13C4-PFOS | 157905.06 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.88 | 138719.67 | 912.10 | 513.1 | False | 13C4-PFOS | 157905.06 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.60 | 131105.01 | 939.37 | 329.3 | False | 13C4-PFOS | 157905.06 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.64 | 244279.98 | 702.44 | 561.4 | False | 13C2-PFOA | 655528.85 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1651-FS1(0) | Injection Vial | 31 |
| Sample ID | CBD-AOA-SW02-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:41:40 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|-----------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.55 | 961400.25 | 947.62 | 3193.5 | False | 13C2-PFDA | 1013582.88 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.09 | 128454.25 | 1164.11 | 860.9 | False | 13C4-PFOS | 166997.60 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.25 | 157169.03 | 1597.23 | 977.8 | False | 13C4-PFOS | 166997.60 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.55 | 377504.00 | 444.43 | 637.2 | False | 13C2-PFOA | 665102.90 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.87 | 496411.13 | 592.26 | 1092.0 | False | 13C2-PFOA | 665102.90 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.22 | 814086.29 | 830.87 | 1309.2 | False | 13C2-PFOA | 665102.90 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.59 | 855865.79 | 985.60 | 1216.2 | False | 13C4-PFOS | 166997.60 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.94 | 927978.59 | 1031.85 | 2366.6 | False | 13C2-PFDA | 1013582.88 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.26 | 857707.28 | 1054.09 | 3082.7 | False | 13C2-PFDA | 1013582.88 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.04 | 727900.50 | 752.77 | 4765.8 | False | 13C2-PFDA | 1013582.88 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 132009.61 | 627.31 | 1115.6 | False | 13C4-PFOS | 166997.60 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.88 | 151844.00 | 944.04 | 575.1 | False | 13C4-PFOS | 166997.60 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.58 | 151436.51 | 1025.97 | 396.1 | False | 13C4-PFOS | 166997.60 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.64 | 241742.25 | 685.13 | 593.2 | False | 13C2-PFOA | 665102.90 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1654-FS1(0) | Injection Vial | 32 |
| Sample ID | CBD-AOA-SW01-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:52:08 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|-----------|--------------|-----------|----------|-----------|-----------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.58 | 477857.91 | 535.66 | 3653.8 | False | 13C2-PFDA | 891256.21 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 84200.67 | 902.07 | 753.2 | False | 13C4-PFOS | 141263.68 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.27 | 89102.99 | 1070.47 | 810.8 | False | 13C4-PFOS | 141263.68 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 306475.22 | 376.76 | 654.0 | False | 13C2-PFOA | 636941.08 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 424900.23 | 529.35 | 889.1 | False | 13C2-PFOA | 636941.08 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 756079.76 | 805.79 | 1414.8 | False | 13C2-PFOA | 636941.08 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.61 | 784539.65 | 1068.05 | 1558.0 | False | 13C4-PFOS | 141263.68 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.96 | 750875.03 | 949.52 | 3690.5 | False | 13C2-PFDA | 891256.21 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.29 | 606869.23 | 848.18 | 2684.0 | False | 13C2-PFDA | 891256.21 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.06 | 249335.81 | 293.24 | 3445.3 | False | 13C2-PFDA | 891256.21 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 103724.32 | 582.69 | 980.3 | True | 13C4-PFOS | 141263.68 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 125773.07 | 924.40 | 652.8 | False | 13C4-PFOS | 141263.68 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.60 | 127742.84 | 1023.10 | 378.9 | False | 13C4-PFOS | 141263.68 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.64 | 215334.24 | 637.27 | 567.4 | False | 13C2-PFOA | 636941.08 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1661-FS1(0) | Injection Vial | 35 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:23:35 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|-----------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.58 | 1012033.35 | 1280.83 | 3518.2 | False | 13C2-PFDA | 789391.44 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 150841.26 | 3958.83 | 856.6 | False | 13C4-PFOS | 57664.57 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.27 | 114215.84 | 3361.46 | 815.9 | False | 13C4-PFOS | 57664.57 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 319227.24 | 532.42 | 769.7 | False | 13C2-PFOA | 469472.72 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 263792.29 | 445.87 | 697.2 | False | 13C2-PFOA | 469472.72 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 513467.55 | 742.43 | 1050.4 | False | 13C2-PFOA | 469472.72 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.61 | 270375.94 | 901.71 | 829.0 | False | 13C4-PFOS | 57664.57 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.96 | 808023.45 | 1153.63 | 2286.6 | False | 13C2-PFDA | 789391.44 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.28 | 845864.00 | 1334.77 | 2498.7 | False | 13C2-PFDA | 789391.44 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.05 | 665883.78 | 884.21 | 4348.7 | False | 13C2-PFDA | 789391.44 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.30 | 122551.58 | 1686.53 | 275.1 | True | 13C4-PFOS | 57664.57 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 70758.73 | 1274.01 | 315.5 | False | 13C4-PFOS | 57664.57 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.60 | 45112.15 | 885.11 | 176.6 | False | 13C4-PFOS | 57664.57 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 257796.29 | 1035.09 | 706.8 | False | 13C2-PFOA | 469472.72 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1668-FS1(0) | Injection Vial | 36 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:34:03 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|-----------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.58 | 485847.03 | 454.60 | 3677.6 | False | 13C2-PFDA | 1067738.55 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.11 | 102309.54 | 1218.37 | 705.8 | False | 13C4-PFOS | 127084.31 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.28 | 73896.83 | 986.84 | 681.6 | False | 13C4-PFOS | 127084.31 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 352359.52 | 450.78 | 614.5 | False | 13C2-PFOA | 612057.54 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.88 | 373729.88 | 484.53 | 733.5 | False | 13C2-PFOA | 612057.54 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 797578.66 | 884.57 | 1064.0 | False | 13C2-PFOA | 612057.54 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.61 | 454989.55 | 688.52 | 1148.8 | False | 13C4-PFOS | 127084.31 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.96 | 860600.69 | 908.39 | 3044.6 | False | 13C2-PFDA | 1067738.55 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.29 | 612337.24 | 714.37 | 2586.4 | False | 13C2-PFDA | 1067738.55 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.07 | 158599.40 | 155.70 | 3709.9 | False | 13C2-PFDA | 1067738.55 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.31 | 118579.93 | 740.46 | 1299.5 | False | 13C4-PFOS | 127084.31 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.89 | 116100.39 | 948.52 | 422.1 | False | 13C4-PFOS | 127084.31 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.61 | 89915.30 | 800.49 | 305.6 | False | 13C4-PFOS | 127084.31 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.65 | 265985.39 | 819.18 | 762.6 | False | 13C2-PFOA | 612057.54 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | LD80 IB | Injection Vial | 4 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 9:46:09 AM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.68 | 1213131.15 | 1139.58 | 5907.6 | False | 13C2-PFDA | 1063535.63 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.20 | 134389.91 | 1202.73 | 1404.1 | False | 13C4-PFOS | 169104.00 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.37 | 133267.57 | 1337.46 | 1339.0 | False | 13C4-PFOS | 169104.00 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.60 | 1088295.96 | 1330.04 | 7553.6 | False | 13C2-PFOA | 640695.79 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.94 | 1046423.53 | 1296.03 | 128848.0 | False | 13C2-PFOA | 640695.79 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.31 | 1268375.95 | 1343.84 | 56478.9 | False | 13C2-PFOA | 640695.79 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.69 | 1067655.44 | 1214.18 | 127951.5 | False | 13C4-PFOS | 169104.00 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 3.05 | 1117174.74 | 1183.87 | 45156.5 | False | 13C2-PFDA | 1063535.63 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.38 | 1016010.93 | 1189.99 | 4859.0 | False | 13C2-PFDA | 1063535.63 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.17 | 1100692.64 | 1084.83 | 3971.7 | False | 13C2-PFDA | 1063535.63 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.34 | 259453.16 | 1217.56 | 5933.2 | False | 13C4-PFOS | 169104.00 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.95 | 209604.51 | 1286.91 | 3979.1 | False | 13C4-PFOS | 169104.00 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.68 | 177790.72 | 1189.51 | 1615.3 | False | 13C4-PFOS | 169104.00 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.70 | 409675.00 | 1205.31 | 3788.1 | False | 13C2-PFOA | 640695.79 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1644-FS1-D(3) | Injection Vial | 7 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:34:06 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.63 | 1513055.83 | 1470.99 | 4966.0 | False | 13C2-PFDA | 1027625.09 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.16 | 166771.16 | 1750.28 | 1509.7 | False | 13C4-PFOS | 144201.18 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.33 | 174333.48 | 2051.74 | 1276.1 | False | 13C4-PFOS | 144201.18 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.58 | 867651.41 | 953.01 | 1623.0 | False | 13C2-PFOA | 712879.37 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.92 | 1012196.00 | 1126.70 | 1878.8 | False | 13C2-PFOA | 712879.37 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.29 | 1349104.69 | 1284.64 | 2866.2 | False | 13C2-PFOA | 712879.37 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.66 | 1054551.24 | 1406.39 | 2086.4 | False | 13C4-PFOS | 144201.18 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 3.02 | 1324450.76 | 1452.57 | 5402.1 | False | 13C2-PFDA | 1027625.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.34 | 1190169.16 | 1442.68 | 3144.1 | False | 13C2-PFDA | 1027625.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.10 | 1307872.87 | 1334.07 | 4391.0 | False | 13C2-PFDA | 1027625.09 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.33 | 235109.90 | 1293.86 | 3051.2 | False | 13C4-PFOS | 144201.18 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.93 | 211398.29 | 1522.07 | 1051.5 | False | 13C4-PFOS | 144201.18 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.66 | 174803.14 | 1371.50 | 673.5 | False | 13C4-PFOS | 144201.18 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.68 | 345756.34 | 914.25 | 1264.5 | False | 13C2-PFOA | 712879.37 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|-----------------------|------------------|----------------------------|
| Sample Name | G1645-FS1-D(3) | Injection Vial | 9 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:55:01 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.61 | 1451559.67 | 1405.99 | 4244.8 | False | 13C2-PFDA | 1031439.61 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.14 | 172491.04 | 1526.21 | 1188.3 | False | 13C4-PFOS | 171044.49 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.31 | 166606.72 | 1653.08 | 1404.1 | False | 13C4-PFOS | 171044.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 789420.05 | 857.05 | 1348.1 | False | 13C2-PFOA | 721221.07 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.90 | 953167.42 | 1048.72 | 1789.1 | False | 13C2-PFOA | 721221.07 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.26 | 1338295.58 | 1259.61 | 2599.4 | False | 13C2-PFOA | 721221.07 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.64 | 1063623.68 | 1195.87 | 2269.2 | False | 13C4-PFOS | 171044.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.99 | 1279758.98 | 1398.37 | 8932.4 | False | 13C2-PFDA | 1031439.61 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.32 | 1153136.83 | 1392.62 | 3838.6 | False | 13C2-PFDA | 1031439.61 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.10 | 1235797.18 | 1255.89 | 4274.5 | False | 13C2-PFDA | 1031439.61 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 244957.79 | 1136.49 | 3199.9 | False | 13C4-PFOS | 171044.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.91 | 224794.30 | 1364.52 | 1913.4 | False | 13C4-PFOS | 171044.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.63 | 164771.78 | 1089.90 | 734.3 | False | 13C4-PFOS | 171044.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 377127.03 | 985.67 | 1377.6 | False | 13C2-PFOA | 721221.07 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1645-FS1-D(7) | Injection Vial | 11 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:16:19 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.61 | 1470232.73 | 1262.15 | 4497.2 | False | 13C2-PFDA | 1163767.23 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.14 | 179177.09 | 1316.13 | 834.7 | False | 13C4-PFOS | 206034.45 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.30 | 169909.88 | 1399.56 | 1066.8 | False | 13C4-PFOS | 206034.45 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 1353219.59 | 1209.73 | 3005.3 | False | 13C2-PFOA | 875884.63 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.90 | 1335640.42 | 1210.04 | 3680.2 | False | 13C2-PFOA | 875884.63 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.26 | 1610527.75 | 1248.17 | 4031.9 | False | 13C2-PFOA | 875884.63 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.63 | 1476237.23 | 1377.91 | 3482.2 | False | 13C4-PFOS | 206034.45 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.99 | 1389171.85 | 1345.32 | 4479.9 | False | 13C2-PFDA | 1163767.23 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.31 | 1191311.27 | 1275.13 | 5250.4 | False | 13C2-PFDA | 1163767.23 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.10 | 1298097.47 | 1169.20 | 3116.5 | False | 13C2-PFDA | 1163767.23 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 292333.08 | 1125.96 | 7649.6 | False | 13C4-PFOS | 206034.45 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.91 | 245860.20 | 1238.94 | 1879.2 | False | 13C4-PFOS | 206034.45 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.63 | 229842.73 | 1262.13 | 945.1 | False | 13C4-PFOS | 206034.45 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 407313.49 | 876.58 | 2634.0 | False | 13C2-PFOA | 875884.63 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1646-FS1-D(3) | Injection Vial | 12 |
| Sample ID | CBD-AOA-SW03-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:26:46 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1362772.07 | 1232.10 | 3012.5 | False | 13C2-PFDA | 1105013.29 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.12 | 169055.42 | 1292.74 | 1033.5 | False | 13C4-PFOS | 197913.19 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 158052.42 | 1355.31 | 1556.3 | False | 13C4-PFOS | 197913.19 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 810127.33 | 773.24 | 1211.0 | False | 13C2-PFOA | 820368.93 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.90 | 952684.88 | 921.51 | 2265.8 | False | 13C2-PFOA | 820368.93 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.26 | 1384923.74 | 1145.96 | 2369.1 | False | 13C2-PFOA | 820368.93 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.63 | 1328506.30 | 1290.91 | 2426.2 | False | 13C4-PFOS | 197913.19 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.98 | 1226073.52 | 1250.51 | 4288.6 | False | 13C2-PFDA | 1105013.29 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 1201827.81 | 1354.79 | 3752.2 | False | 13C2-PFDA | 1105013.29 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.08 | 1204357.66 | 1142.44 | 4046.8 | False | 13C2-PFDA | 1105013.29 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 222398.75 | 891.75 | 2641.2 | False | 13C4-PFOS | 197913.19 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.91 | 223246.96 | 1171.15 | 1119.6 | False | 13C4-PFOS | 197913.19 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.62 | 198632.04 | 1135.50 | 708.3 | False | 13C4-PFOS | 197913.19 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.67 | 373520.61 | 858.26 | 952.9 | False | 13C2-PFOA | 820368.93 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1647-FS1-D(3) | Injection Vial | 13 |
| Sample ID | CBD-AOA-SW04-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:37:13 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.61 | 1519909.97 | 1329.82 | 4904.7 | False | 13C2-PFDA | 1141864.50 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.15 | 165292.51 | 1227.43 | 1015.8 | False | 13C4-PFOS | 203803.78 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.31 | 172558.52 | 1436.93 | 1470.4 | False | 13C4-PFOS | 203803.78 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 832415.51 | 873.26 | 1486.2 | False | 13C2-PFOA | 746390.85 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.91 | 1060171.23 | 1127.11 | 2499.3 | False | 13C2-PFOA | 746390.85 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.27 | 1372151.41 | 1247.92 | 2334.6 | False | 13C2-PFOA | 746390.85 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.64 | 1384105.06 | 1306.06 | 2500.1 | False | 13C4-PFOS | 203803.78 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 3.00 | 1342579.07 | 1325.14 | 3837.1 | False | 13C2-PFDA | 1141864.50 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.32 | 1222193.47 | 1333.28 | 4404.4 | False | 13C2-PFDA | 1141864.50 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.09 | 1247837.49 | 1145.49 | 3460.6 | False | 13C2-PFDA | 1141864.50 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 244637.31 | 952.57 | 2454.0 | False | 13C4-PFOS | 203803.78 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.92 | 214167.09 | 1091.05 | 959.2 | False | 13C4-PFOS | 203803.78 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.64 | 212810.11 | 1181.39 | 673.8 | False | 13C4-PFOS | 203803.78 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.67 | 369287.06 | 932.63 | 1121.6 | False | 13C2-PFOA | 746390.85 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1661-FS1-D(3) | Injection Vial | 14 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:47:41 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.60 | 1492838.55 | 1389.02 | 4467.5 | False | 13C2-PFDA | 1073731.65 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.13 | 163620.25 | 1941.77 | 1163.6 | False | 13C4-PFOS | 127524.50 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.30 | 161260.90 | 2146.08 | 1424.3 | False | 13C4-PFOS | 127524.50 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 852111.27 | 761.69 | 1308.4 | False | 13C2-PFOA | 875963.95 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 802876.57 | 727.31 | 1714.3 | False | 13C2-PFOA | 875963.95 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.26 | 1301202.77 | 1008.35 | 2159.2 | False | 13C2-PFOA | 875963.95 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.63 | 812287.88 | 1224.96 | 2552.6 | False | 13C4-PFOS | 127524.50 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.99 | 1267001.35 | 1329.90 | 9744.6 | False | 13C2-PFDA | 1073731.65 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.31 | 1151187.07 | 1335.51 | 2801.8 | False | 13C2-PFDA | 1073731.65 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.08 | 1273475.84 | 1243.20 | 4083.1 | False | 13C2-PFDA | 1073731.65 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 255054.28 | 1587.17 | 3120.9 | False | 13C4-PFOS | 127524.50 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.91 | 177293.07 | 1443.45 | 954.4 | False | 13C4-PFOS | 127524.50 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.63 | 137274.51 | 1217.90 | 592.8 | False | 13C4-PFOS | 127524.50 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 394513.87 | 848.96 | 1516.9 | False | 13C2-PFOA | 875963.95 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1661-FS1-D(5) | Injection Vial | 17 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:19:06 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.61 | 1458965.65 | 1262.14 | 4833.5 | False | 13C2-PFDA | 1154857.76 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.13 | 182471.78 | 1403.17 | 1296.2 | False | 13C4-PFOS | 196807.49 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.30 | 164093.80 | 1415.02 | 1270.8 | False | 13C4-PFOS | 196807.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 1315554.48 | 1117.80 | 2391.8 | False | 13C2-PFOA | 921539.70 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.90 | 1237913.05 | 1065.94 | 3588.0 | False | 13C2-PFOA | 921539.70 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.26 | 1609699.22 | 1185.72 | 4684.4 | False | 13C2-PFOA | 921539.70 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.63 | 1292529.69 | 1263.00 | 143912.8 | False | 13C4-PFOS | 196807.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.99 | 1333541.31 | 1301.41 | 12048.2 | False | 13C2-PFDA | 1154857.76 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.31 | 1319604.84 | 1423.35 | 4512.6 | False | 13C2-PFDA | 1154857.76 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.09 | 1297760.93 | 1177.91 | 4000.2 | False | 13C2-PFDA | 1154857.76 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 326085.08 | 1314.84 | 5335.6 | False | 13C4-PFOS | 196807.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.91 | 243690.89 | 1285.58 | 2281.0 | False | 13C4-PFOS | 196807.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.63 | 206929.83 | 1189.58 | 1006.1 | False | 13C4-PFOS | 196807.49 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 423884.72 | 867.05 | 2082.0 | False | 13C2-PFOA | 921539.70 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1668-FS1-D(3) | Injection Vial | 19 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:40:03 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.59 | 1244035.28 | 1036.76 | 3367.8 | False | 13C2-PFDA | 1198793.49 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.13 | 154454.11 | 1182.57 | 1187.9 | False | 13C4-PFOS | 197664.12 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.29 | 143463.99 | 1231.76 | 1270.2 | False | 13C4-PFOS | 197664.12 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 840704.85 | 821.36 | 1402.9 | False | 13C2-PFOA | 801453.65 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 985658.29 | 975.90 | 1937.0 | False | 13C2-PFOA | 801453.65 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.25 | 1299415.63 | 1100.58 | 2364.9 | False | 13C2-PFOA | 801453.65 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.63 | 1113360.07 | 1083.21 | 1831.0 | False | 13C4-PFOS | 197664.12 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.98 | 1220293.71 | 1147.25 | 3584.8 | False | 13C2-PFDA | 1198793.49 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.30 | 1153459.86 | 1198.55 | 5553.3 | False | 13C2-PFDA | 1198793.49 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.06 | 1146791.63 | 1002.74 | 4073.6 | False | 13C2-PFDA | 1198793.49 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 240424.62 | 965.24 | 2742.7 | False | 13C4-PFOS | 197664.12 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 217977.36 | 1144.95 | 1401.0 | False | 13C4-PFOS | 197664.12 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.62 | 173025.73 | 990.37 | 695.0 | False | 13C4-PFOS | 197664.12 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 376400.51 | 885.29 | 1656.2 | False | 13C2-PFOA | 801453.65 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1668-FS1-D(5) | Injection Vial | 20 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:50:31 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.52 | 1606897.99 | 1249.23 | 4329.4 | False | 13C2-PFDA | 1285093.68 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.07 | 181356.51 | 1225.58 | 1599.6 | False | 13C4-PFOS | 223948.16 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.23 | 185231.27 | 1403.71 | 1278.9 | False | 13C4-PFOS | 223948.16 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.56 | 1333246.24 | 1132.73 | 2562.0 | False | 13C2-PFOA | 921624.26 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.89 | 1325783.36 | 1141.50 | 3887.6 | False | 13C2-PFOA | 921624.26 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.24 | 1633844.39 | 1203.39 | 3085.0 | False | 13C2-PFOA | 921624.26 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.59 | 1426657.61 | 1225.12 | 3513.5 | False | 13C4-PFOS | 223948.16 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 2.93 | 1416752.47 | 1242.50 | 4535.6 | False | 13C2-PFDA | 1285093.68 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.24 | 1361987.34 | 1320.19 | 5916.8 | False | 13C2-PFDA | 1285093.68 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 3.97 | 1400515.95 | 1142.35 | 4344.7 | False | 13C2-PFDA | 1285093.68 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 306871.64 | 1087.41 | 3451.3 | False | 13C4-PFOS | 223948.16 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.90 | 255566.47 | 1184.84 | 1548.7 | False | 13C4-PFOS | 223948.16 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.59 | 223396.12 | 1128.60 | 961.3 | False | 13C4-PFOS | 223948.16 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.66 | 413213.35 | 845.15 | 3125.5 | False | 13C2-PFOA | 921624.26 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1644-FS1-D(7) | Injection Vial | 2 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 5:58:41 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.62 | 1449592.77 | 1262.08 | 3638.7 | False | 13C2-PFDA | 1147490.45 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.15 | 157860.20 | 1168.03 | 1129.5 | False | 13C4-PFOS | 204538.14 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.32 | 145513.03 | 1207.37 | 1156.0 | False | 13C4-PFOS | 204538.14 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 1261636.50 | 1210.20 | 2220.4 | False | 13C2-PFOA | 816288.93 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.91 | 1242720.21 | 1208.06 | 3911.1 | False | 13C2-PFOA | 816288.93 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.28 | 1413002.93 | 1175.03 | 6374.3 | False | 13C2-PFOA | 816288.93 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.65 | 1384161.31 | 1301.42 | 3798.9 | False | 13C4-PFOS | 204538.14 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 3.01 | 1329184.23 | 1305.49 | 35119.9 | False | 13C2-PFDA | 1147490.45 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.33 | 1212307.37 | 1316.01 | 4797.4 | False | 13C2-PFDA | 1147490.45 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.11 | 1253694.67 | 1145.22 | 4270.2 | False | 13C2-PFDA | 1147490.45 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 309772.25 | 1201.86 | 4750.4 | False | 13C4-PFOS | 204538.14 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.92 | 227396.29 | 1154.28 | 1677.0 | False | 13C4-PFOS | 204538.14 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.65 | 201961.21 | 1117.14 | 1029.6 | False | 13C4-PFOS | 204538.14 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.67 | 440187.84 | 1016.50 | 2672.7 | False | 13C2-PFOA | 816288.93 | 1250.00 | | N/A | N/A | ✓ |

| | | | |
|--------------------|----------------------|------------------|----------------------------|
| Sample Name | G1661-FS1-D(9) | Injection Vial | 3 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 6:09:10 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 SIS |
| Sample Comment | | | |

Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
|--------------|----------------|------|------------|--------------|-----------|----------|-----------|------------|-----------------|-------------|-----------|--------------------|----------|
| 13C2-PFDoA | 615.0 / 570.0 | 3.62 | 1447909.60 | 1272.17 | 5278.8 | False | 13C2-PFDA | 1137064.34 | 1250.00 | | | | |
| d3-MeFOSAA | 573.0 / 419.0 | 3.15 | 146207.13 | 1031.91 | 1349.7 | False | 13C4-PFOS | 214429.08 | 1195.00 | | N/A | N/A | ✓ |
| d5-EtFOSAA | 589.0 / 419.0 | 3.31 | 150134.16 | 1188.25 | 1280.8 | False | 13C4-PFOS | 214429.08 | 1195.00 | | N/A | N/A | ✓ |
| 13C5-PFHxA | 318.0 / 273.0 | 1.57 | 1301739.93 | 1364.84 | 3975.4 | False | 13C2-PFOA | 746813.25 | 1250.00 | | N/A | N/A | ✓ |
| 13C4-PFHpA | 367.0 / 322.0 | 1.90 | 1245227.08 | 1323.11 | 4423.0 | False | 13C2-PFOA | 746813.25 | 1250.00 | | N/A | N/A | ✓ |
| 13C8-PFOA | 421.0 / 376.0 | 2.27 | 1536948.92 | 1397.01 | 35252.8 | False | 13C2-PFOA | 746813.25 | 1250.00 | | N/A | N/A | ✓ |
| 13C9-PFNA | 472.0 / 427.0 | 2.64 | 1381134.11 | 1238.68 | 6054.4 | False | 13C4-PFOS | 214429.08 | 1195.00 | | N/A | N/A | ✓ |
| 13C6-PFDA | 519.0 / 474.0 | 3.00 | 1247642.96 | 1236.64 | 3942.6 | False | 13C2-PFDA | 1137064.34 | 1250.00 | | N/A | N/A | ✓ |
| 13C7-PFUnA | 570.0 / 525.0 | 3.32 | 1223550.53 | 1340.40 | 4896.7 | False | 13C2-PFDA | 1137064.34 | 1250.00 | | N/A | N/A | ✓ |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.11 | 1268192.08 | 1169.09 | 3437.1 | False | 13C2-PFDA | 1137064.34 | 1250.00 | | N/A | N/A | ✓ |
| 13C3-PFBS | 302.0 / 99.0 | 1.32 | 303362.22 | 1122.70 | 5258.2 | False | 13C4-PFOS | 214429.08 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-PFHxS | 402.0 / 99.0 | 1.92 | 235259.80 | 1139.11 | 3867.9 | False | 13C4-PFOS | 214429.08 | 1195.00 | | N/A | N/A | ✓ |
| 13C8-PFOS | 507.0 / 99.0 | 2.64 | 220906.33 | 1165.57 | 1728.7 | False | 13C4-PFOS | 214429.08 | 1195.00 | | N/A | N/A | ✓ |
| 13C3-HFPO-DA | 287.0 / 169.0 | 1.67 | 438927.91 | 1107.88 | 2564.5 | False | 13C2-PFOA | 746813.25 | 1250.00 | | N/A | N/A | ✓ |

Chromatograms



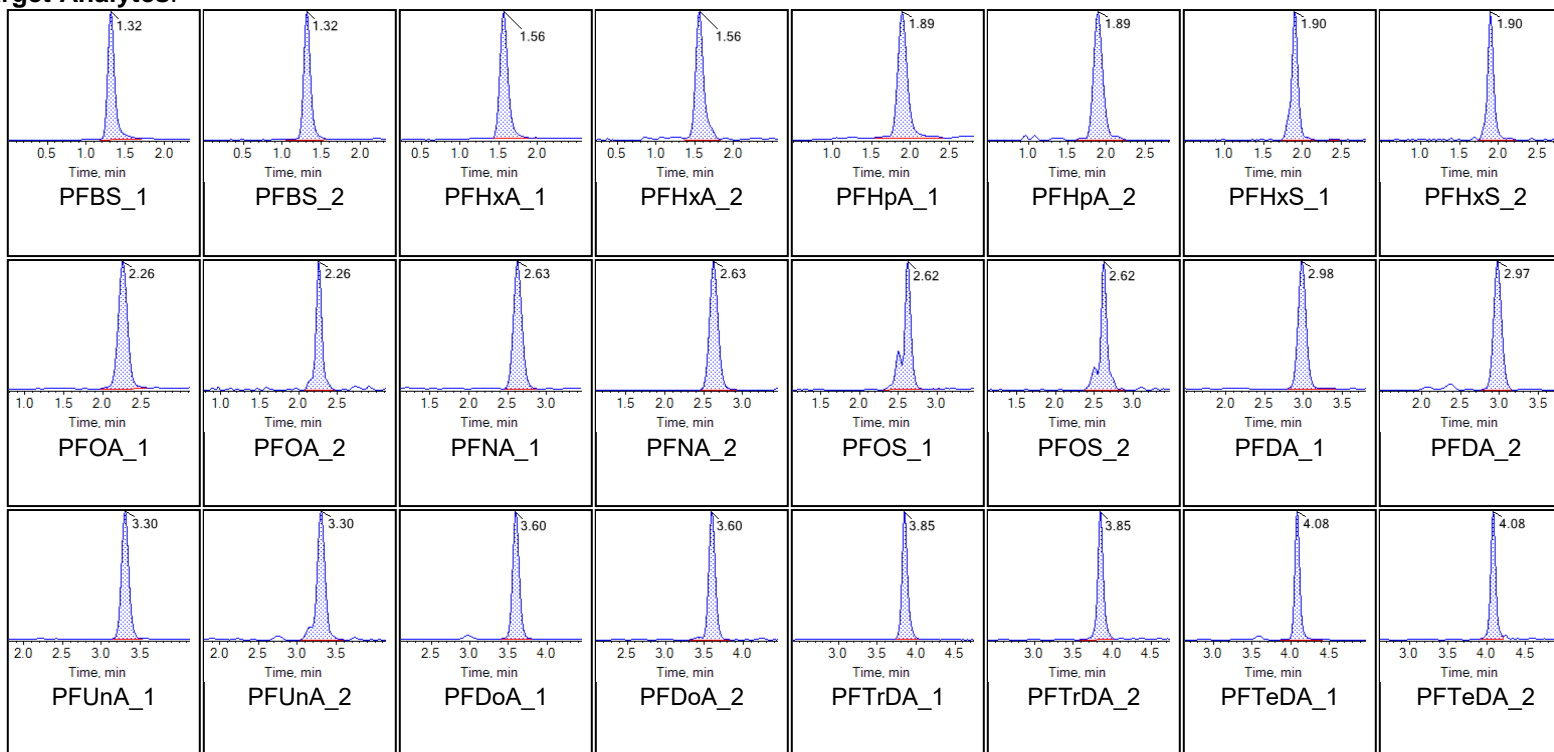
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Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD74 | Injection Vial | 2 |
| Sample ID | L1 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
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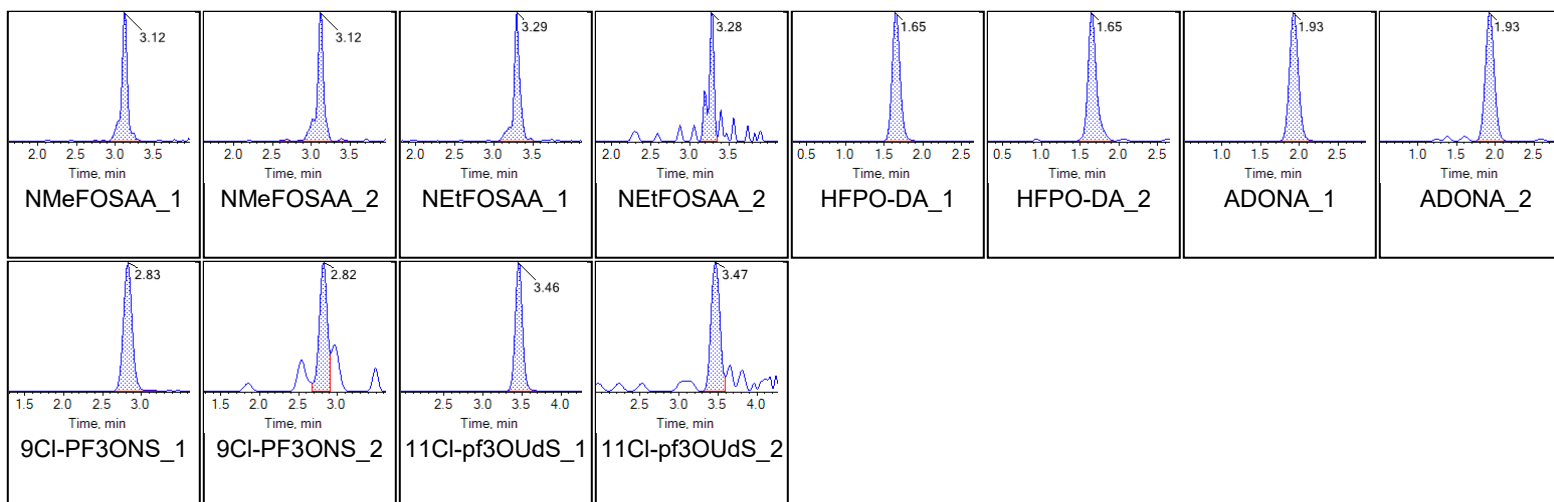
Chromatograms

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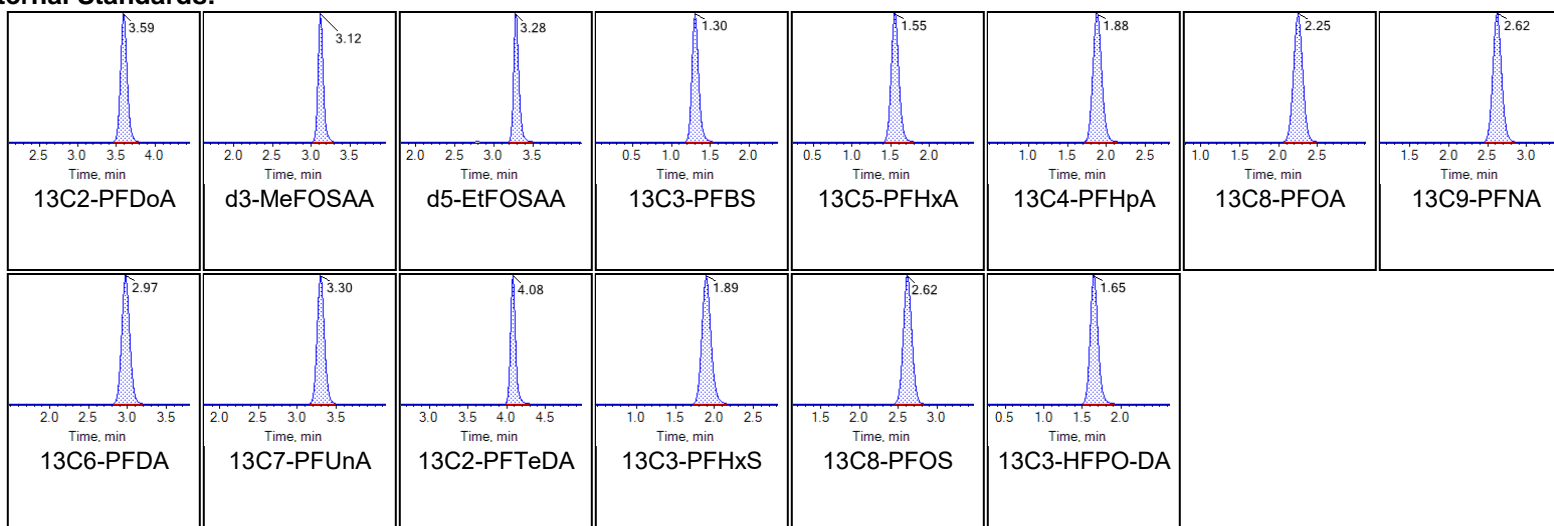




Chromatogram Report

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Internal Standards:





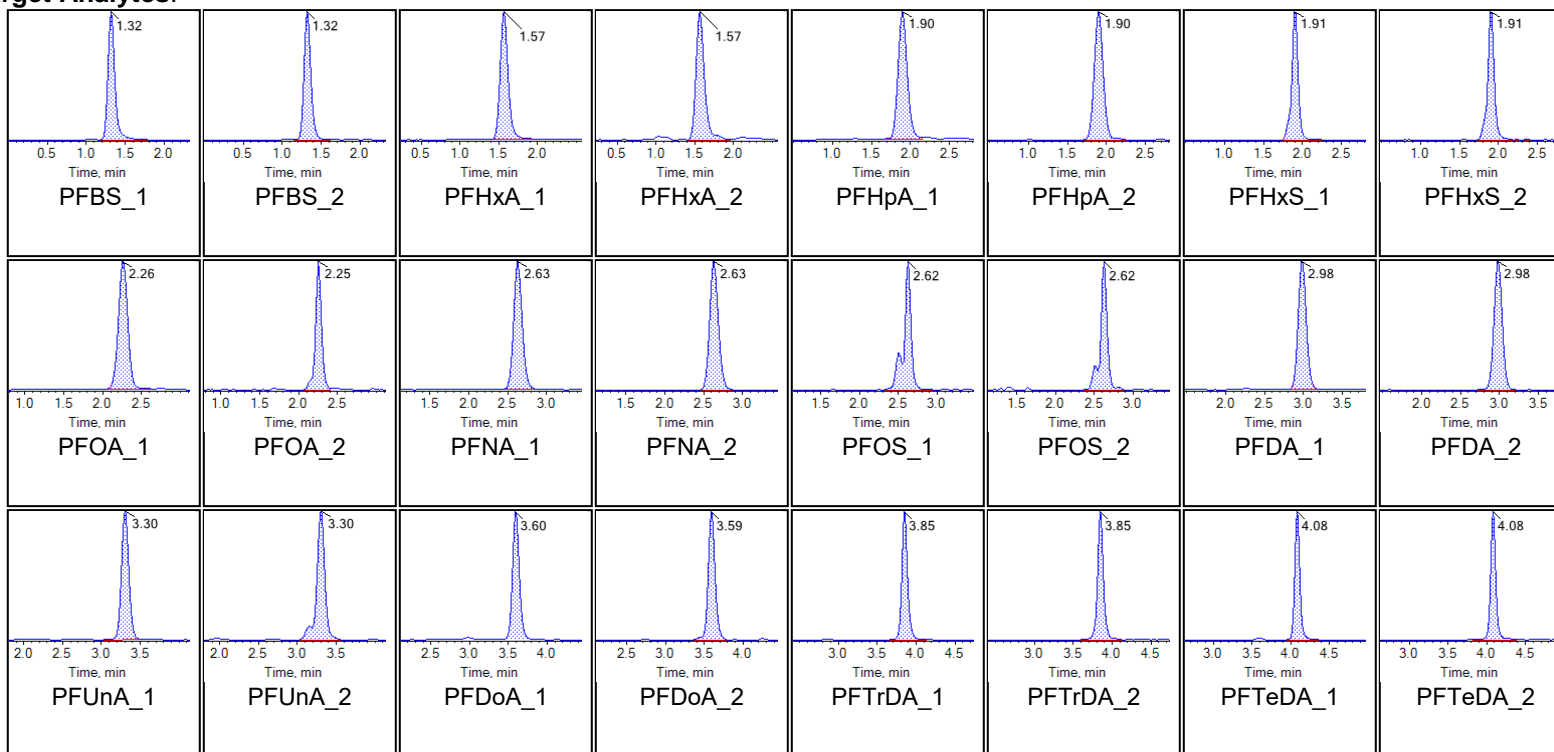
Chromatogram Report

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| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD75 | Injection Vial | 3 |
| Sample ID | L2 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:56:29 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

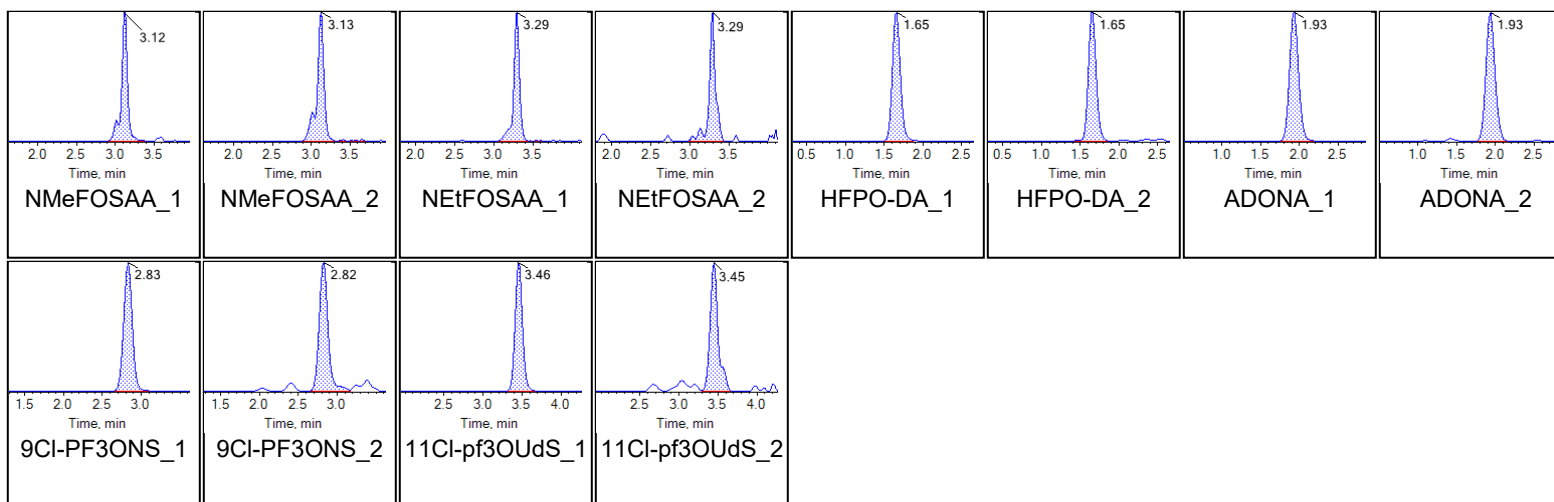
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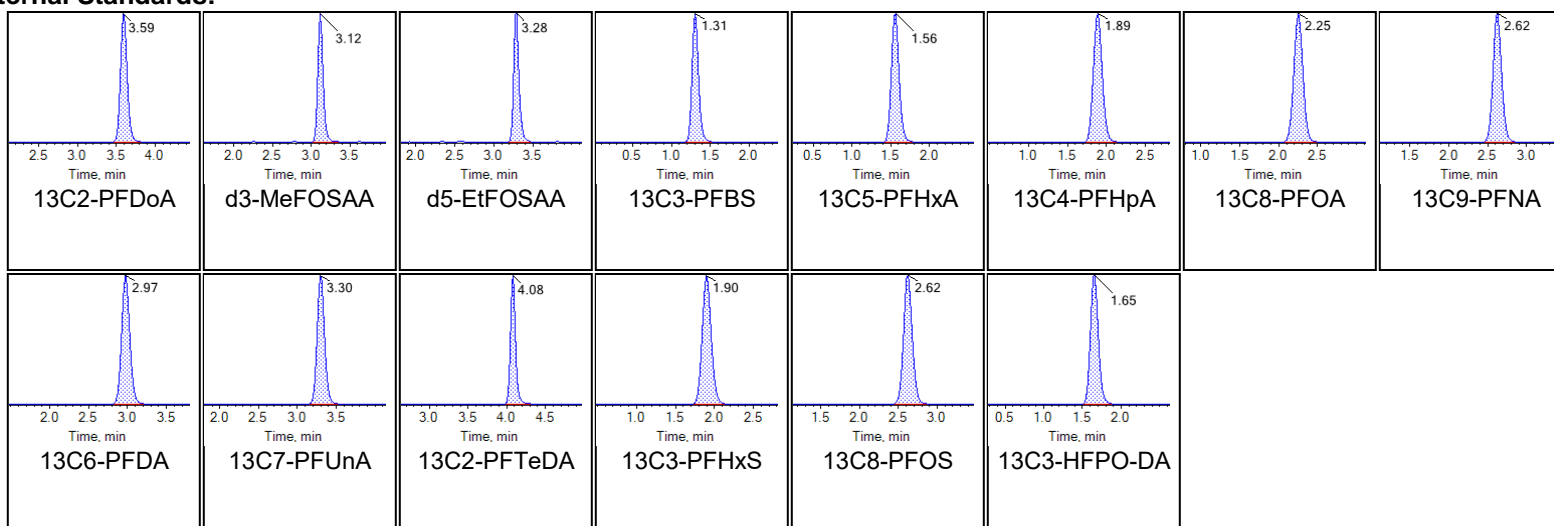




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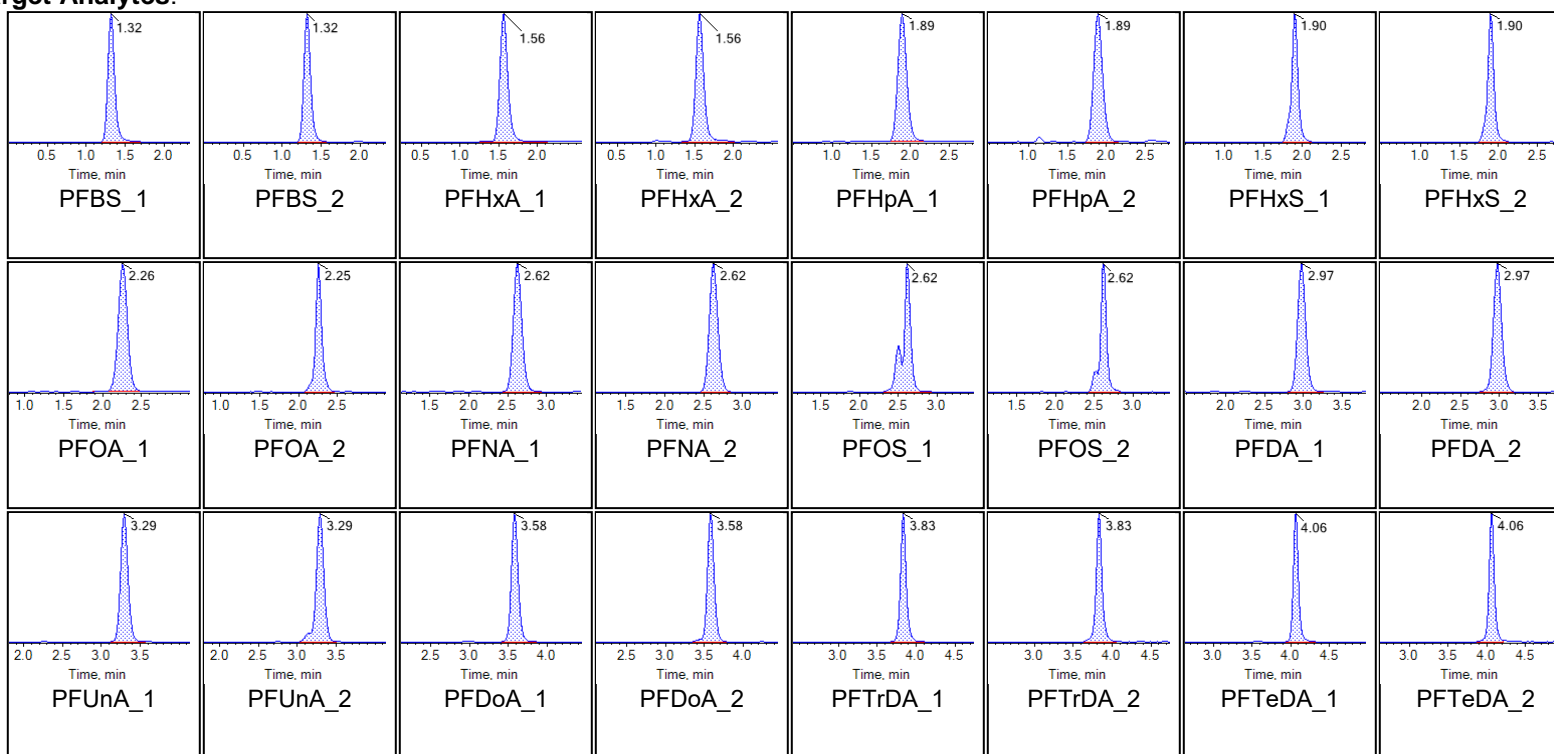
Chromatogram Report

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| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD76 | Injection Vial | 4 |
| Sample ID | L3 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:06:57 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

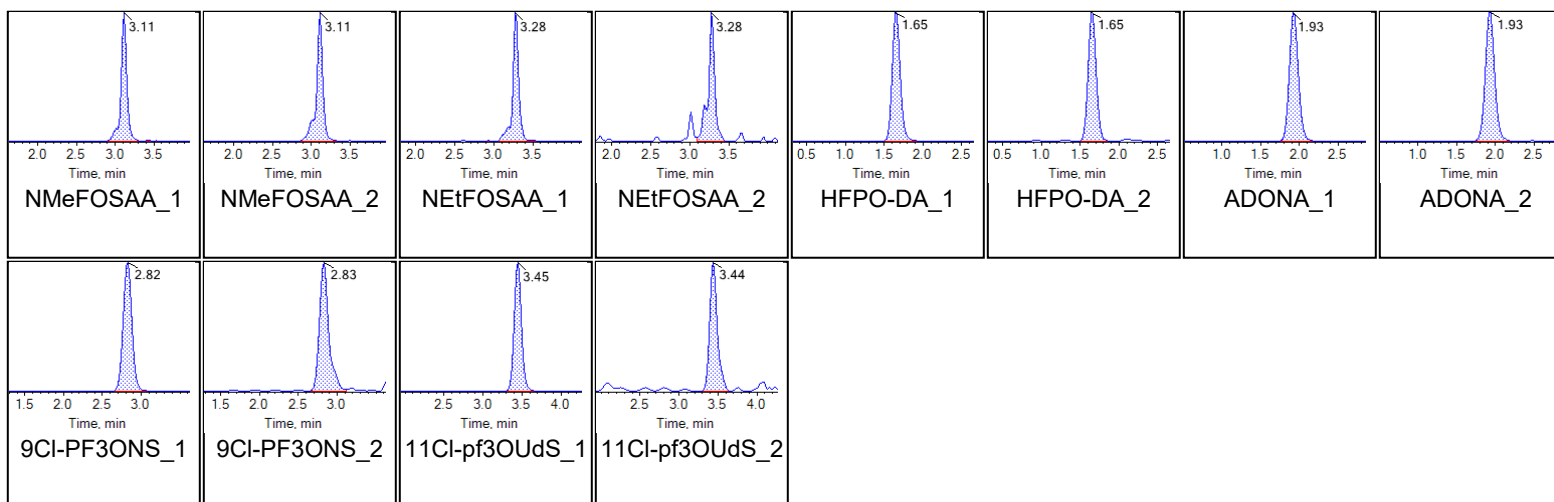
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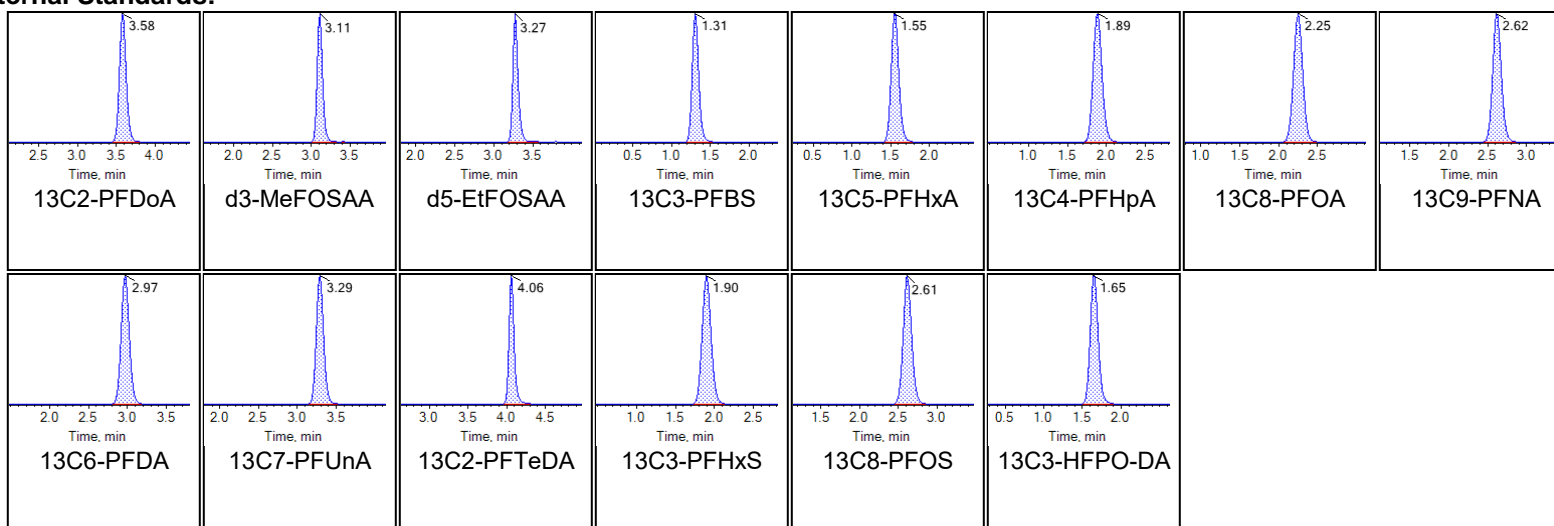




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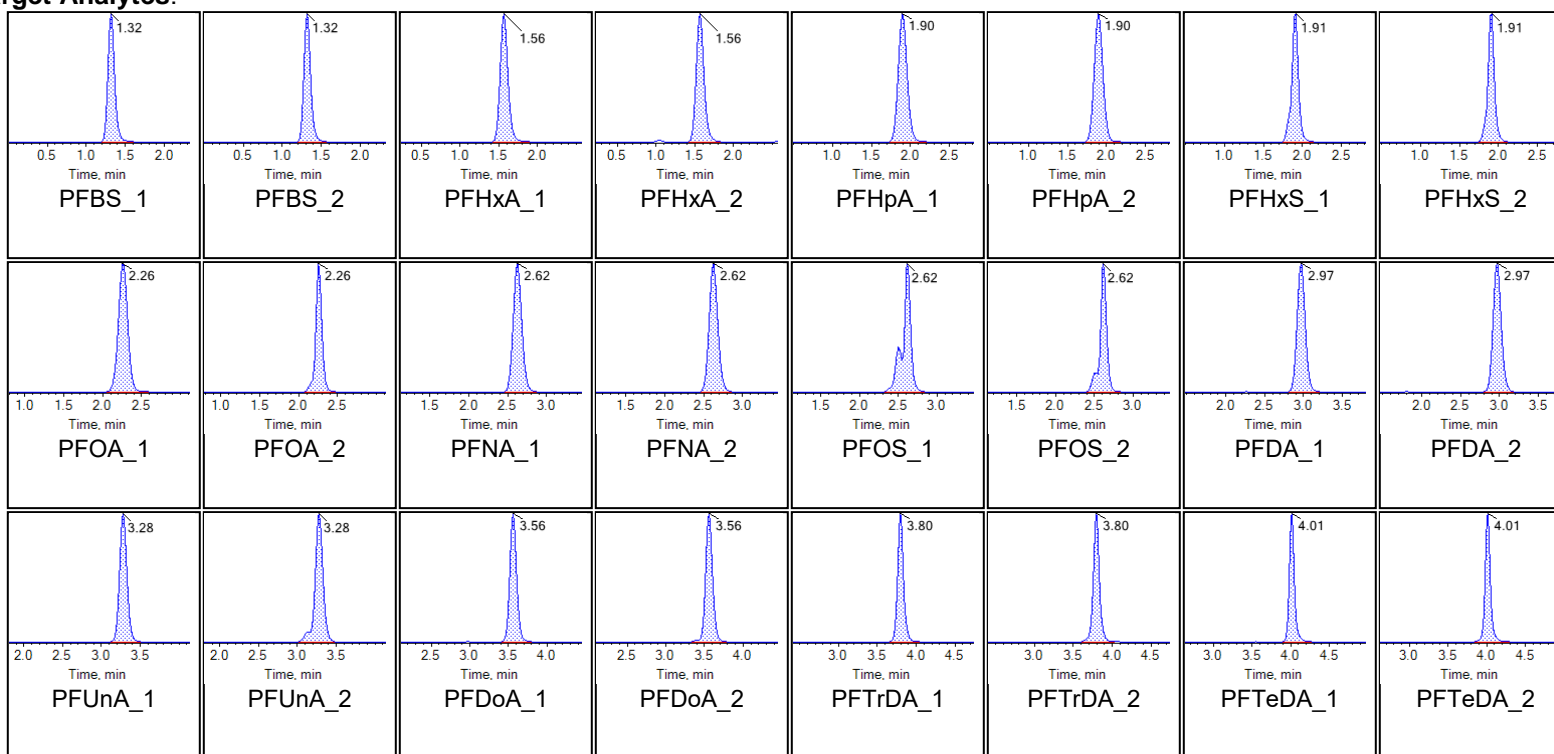
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| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD77 | Injection Vial | 5 |
| Sample ID | L4 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:17:24 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

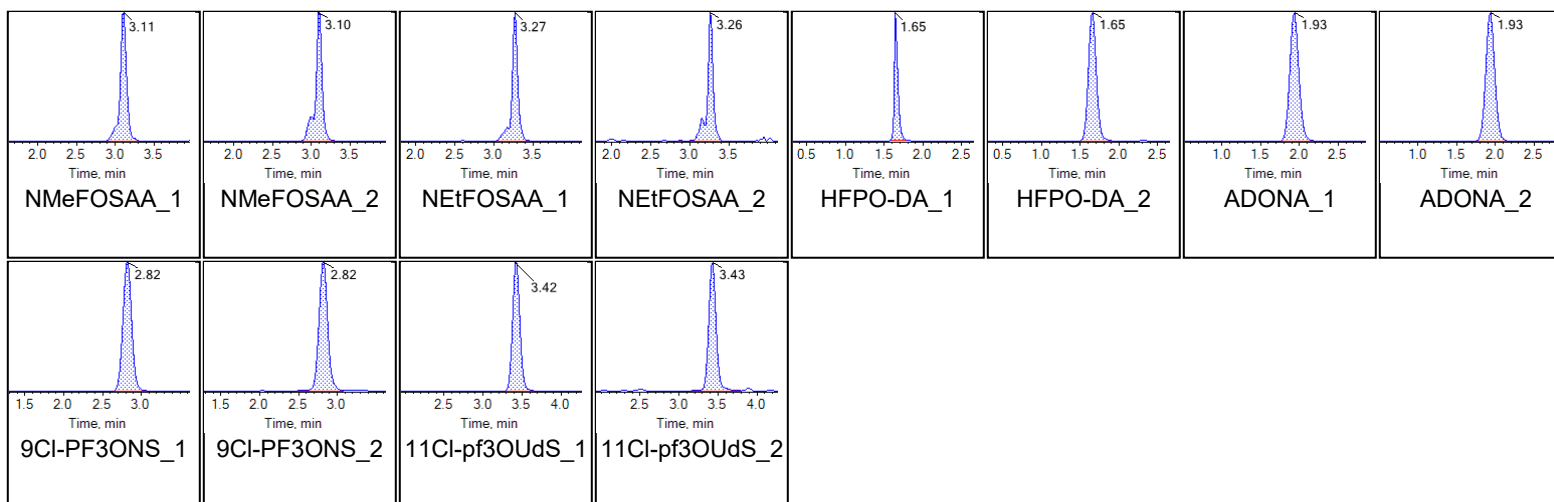
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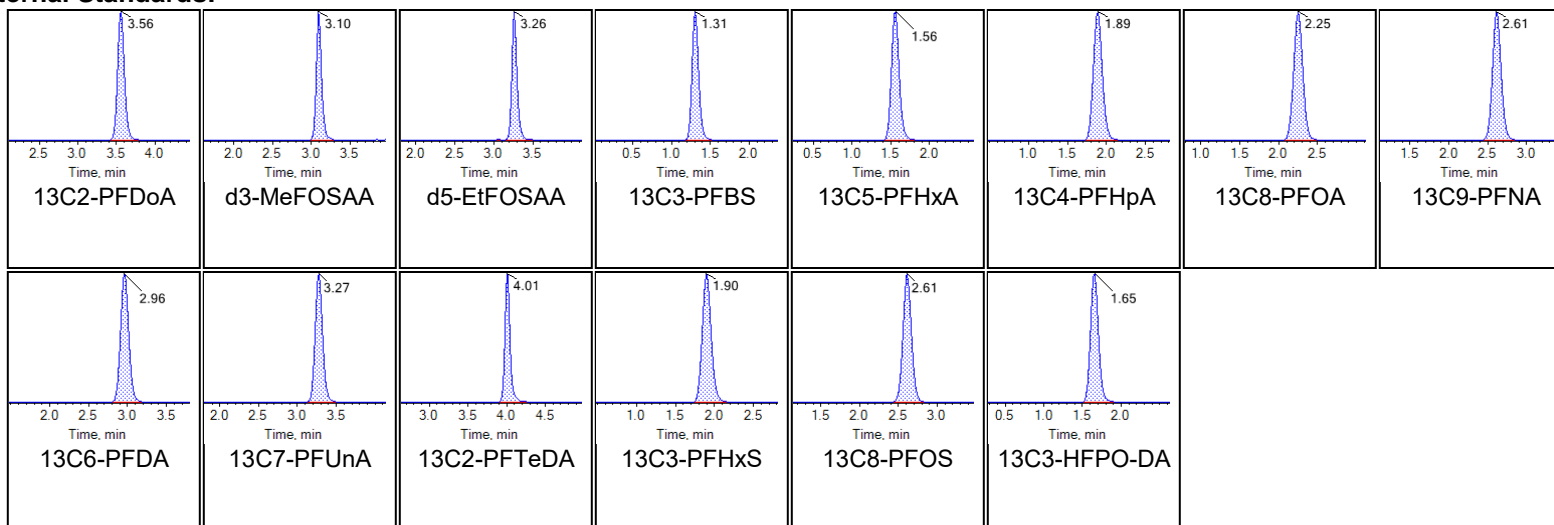




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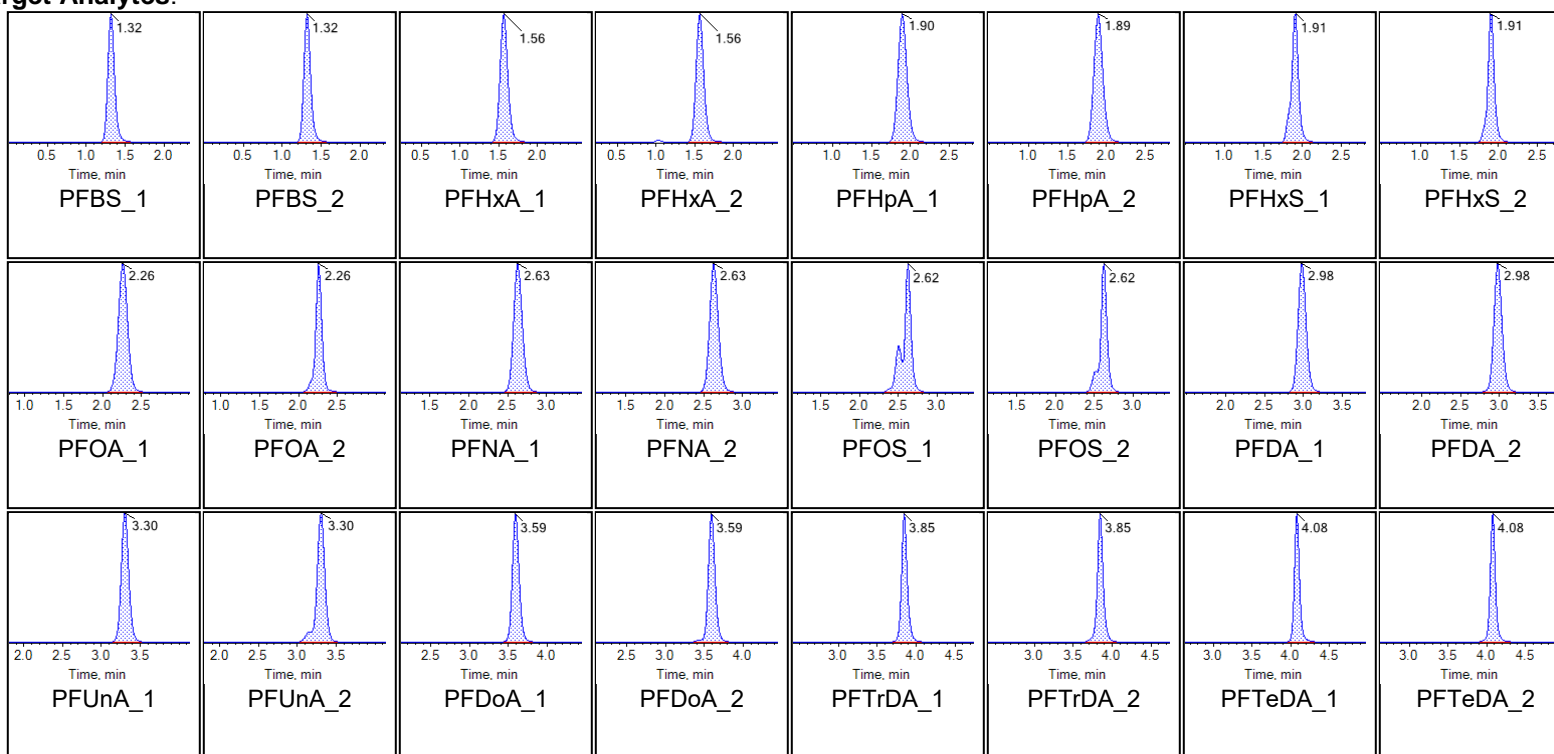
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| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD78 | Injection Vial | 6 |
| Sample ID | L5 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:27:51 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

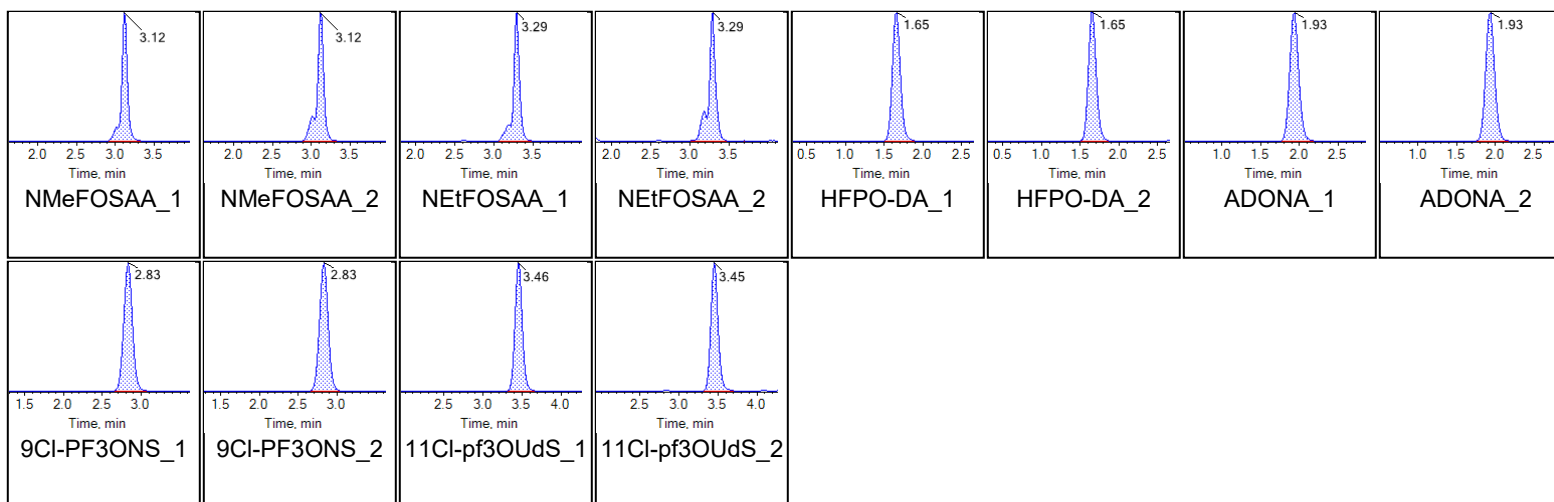
Chromatograms

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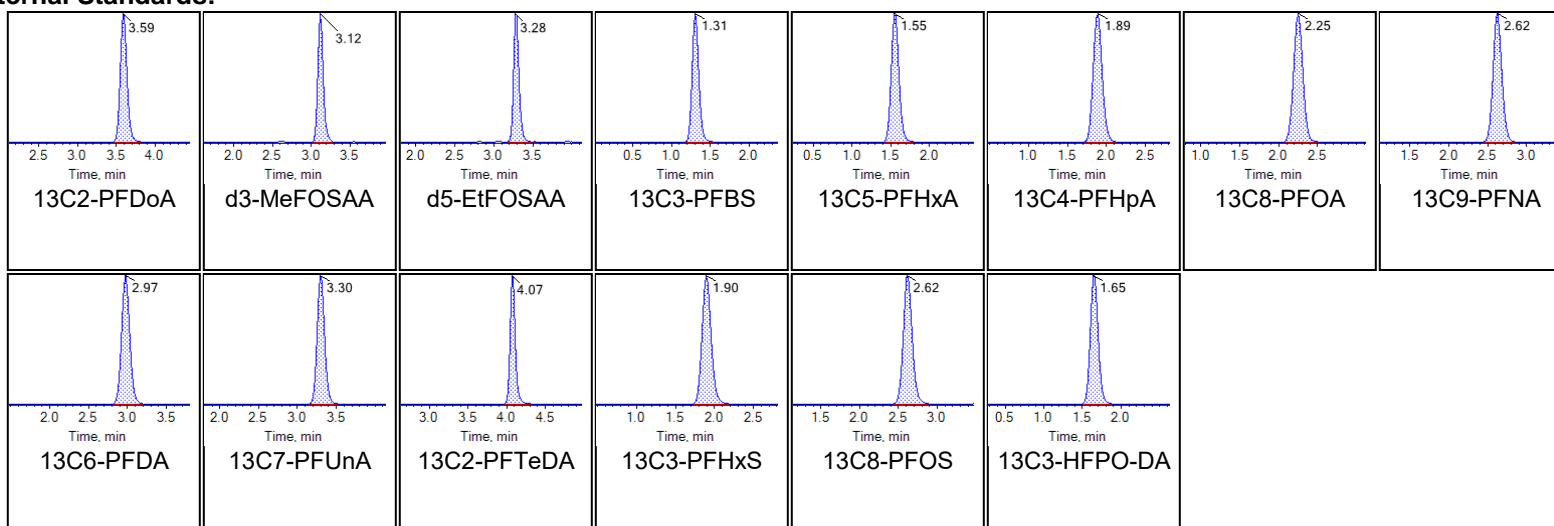




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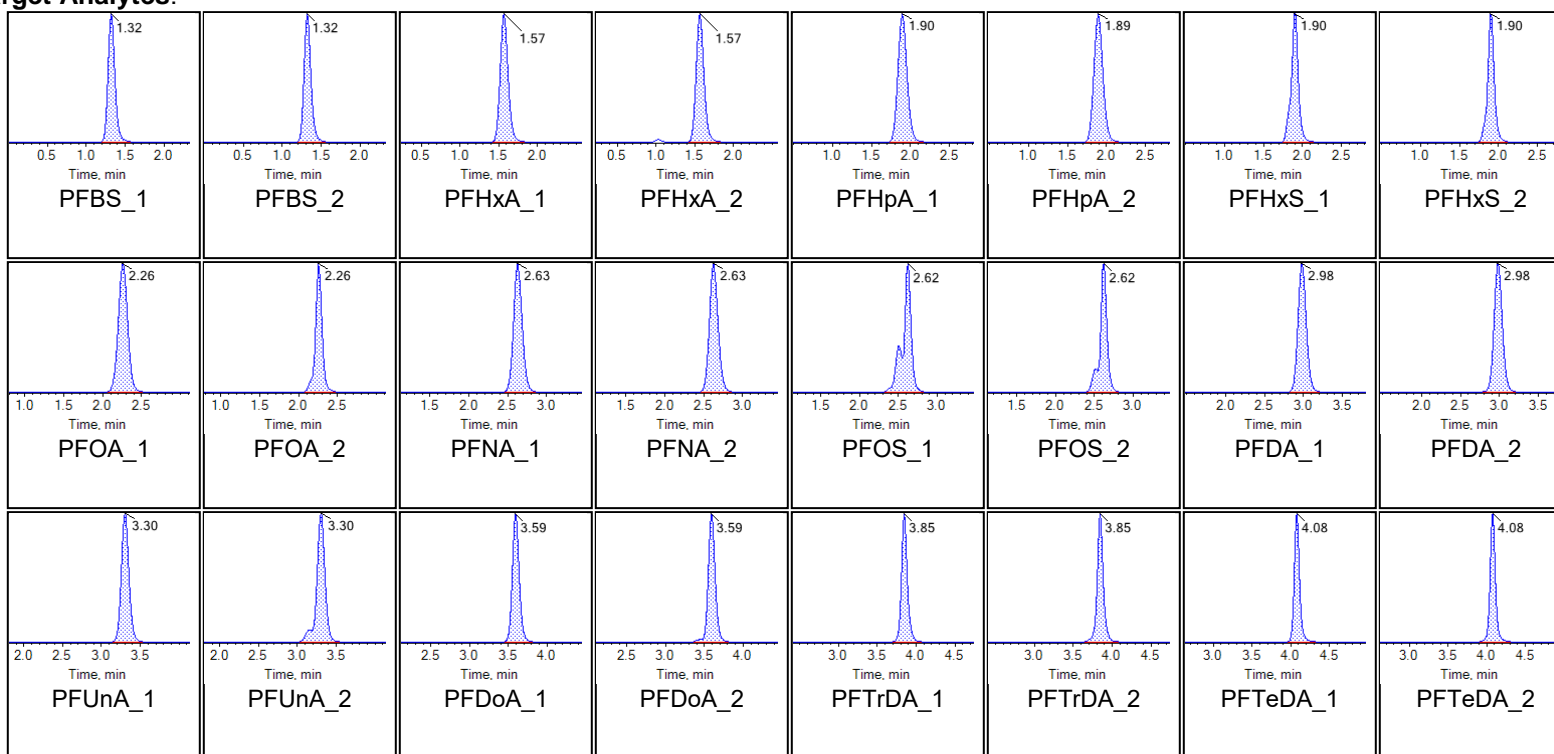
Chromatogram Report

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Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD79 | Injection Vial | 7 |
| Sample ID | L6 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:38:18 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

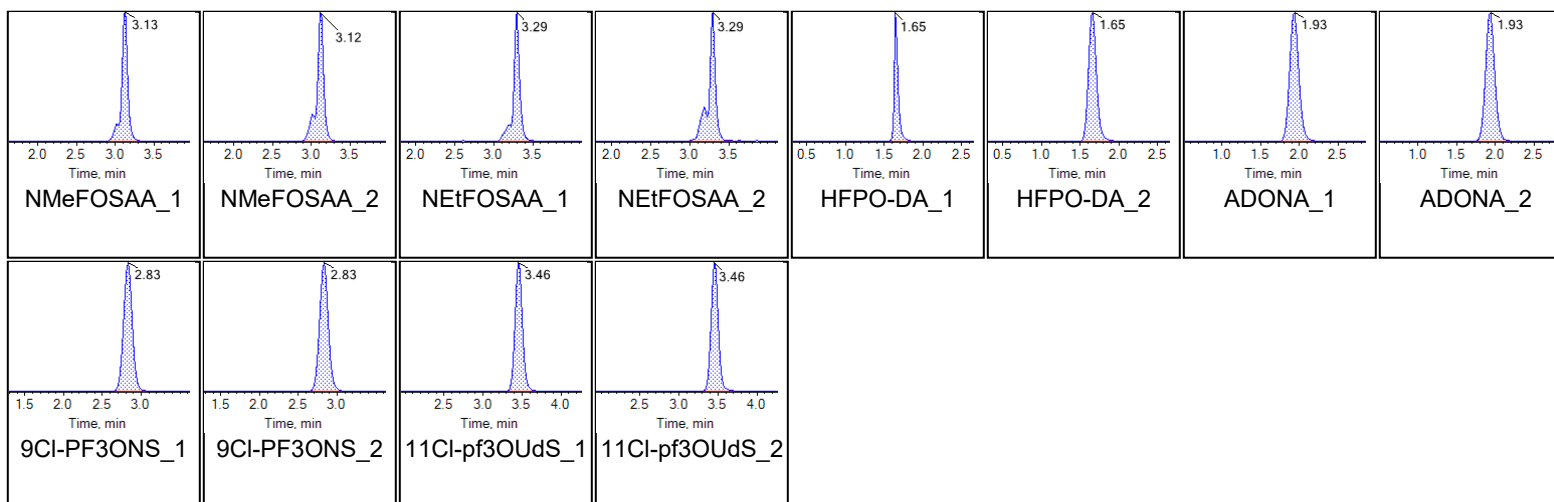
Chromatograms

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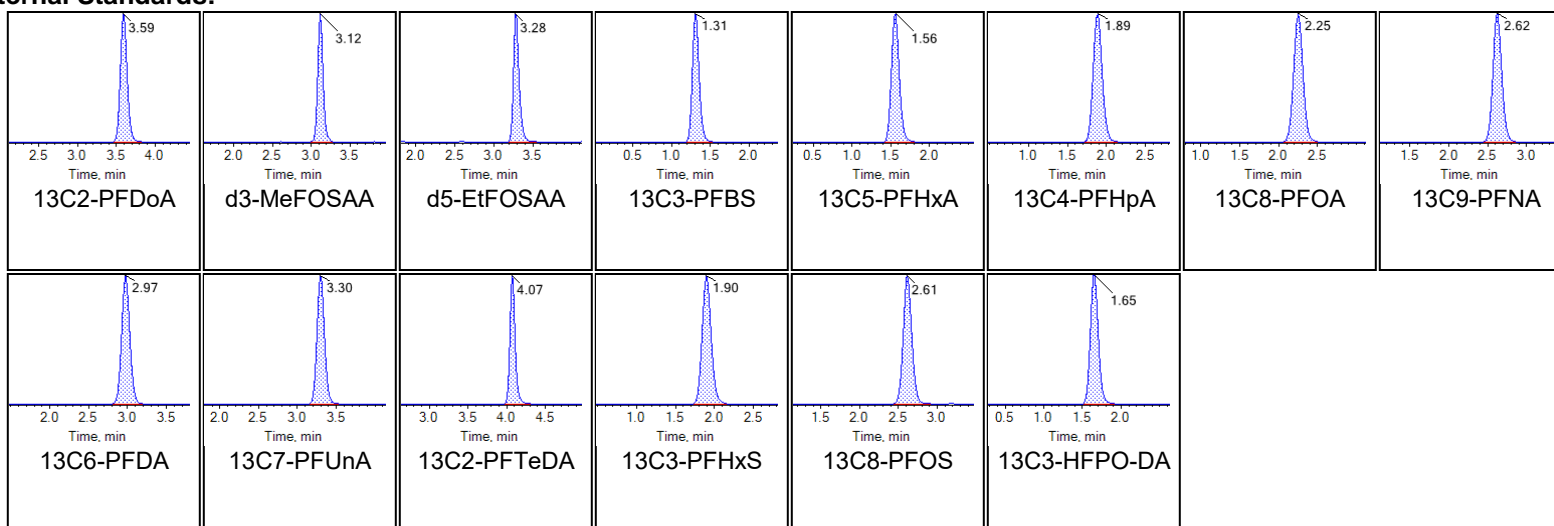




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Internal Standards:





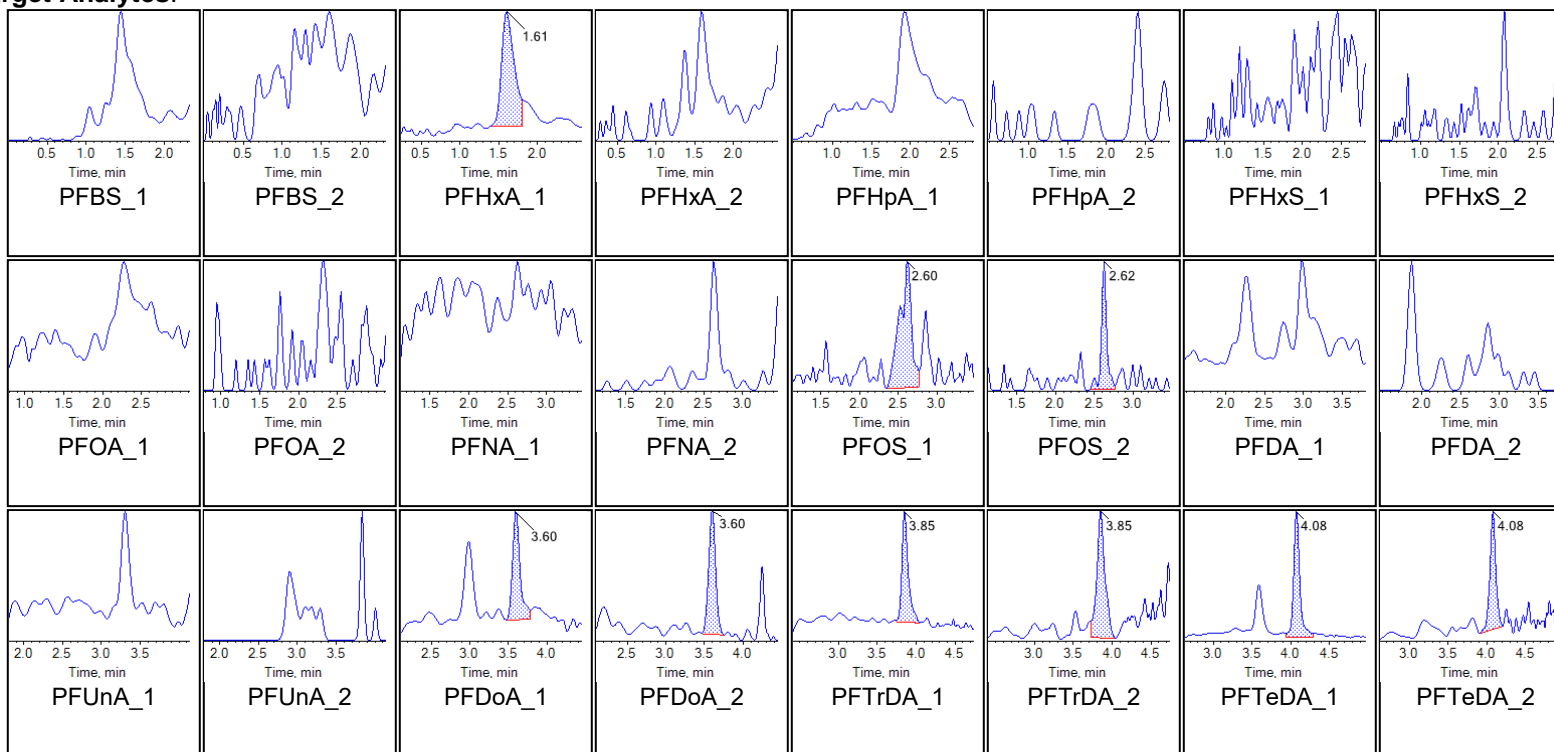
Chromatogram Report

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| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD80 IB | Injection Vial | 8 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:48:46 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

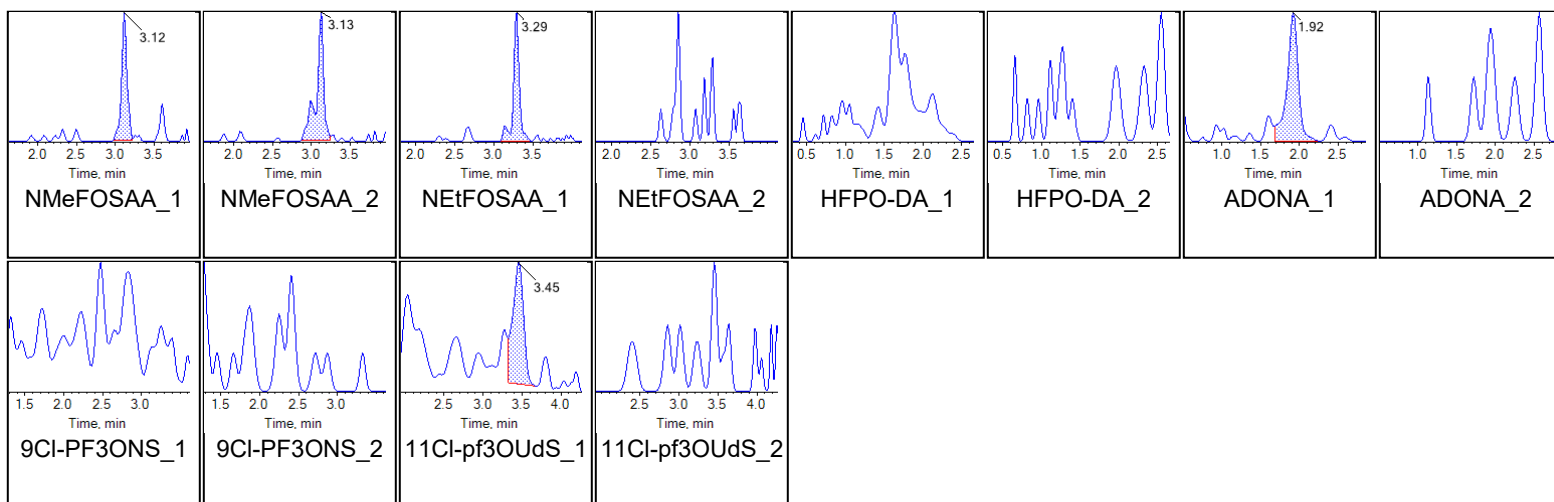
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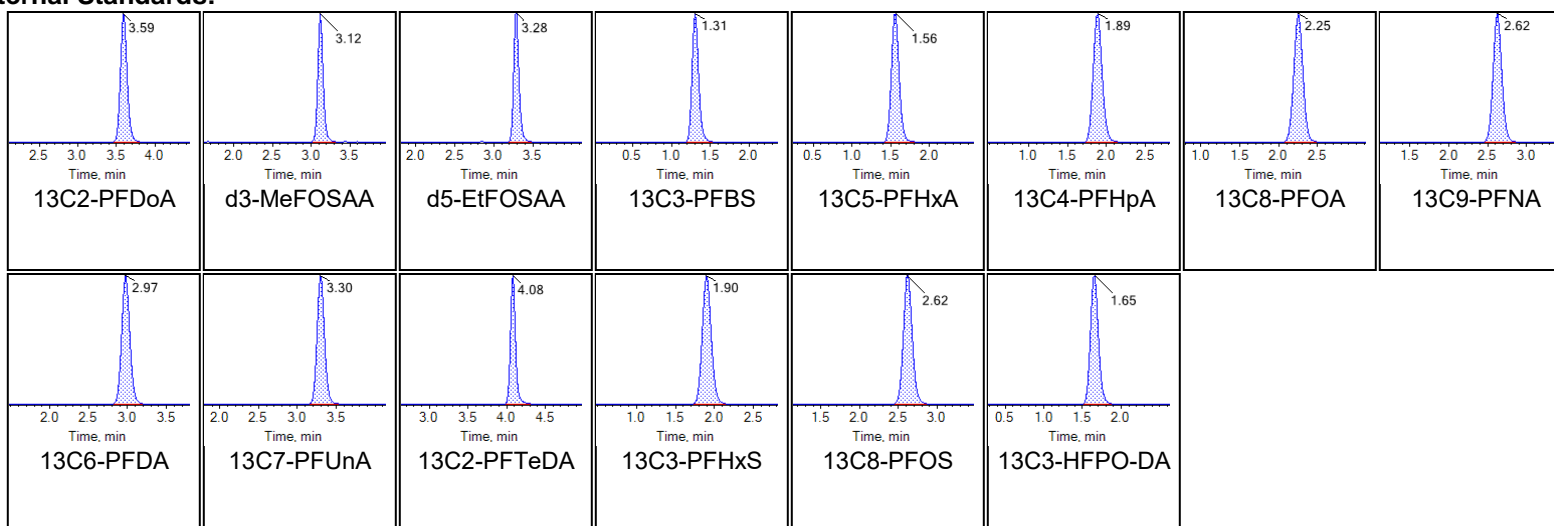




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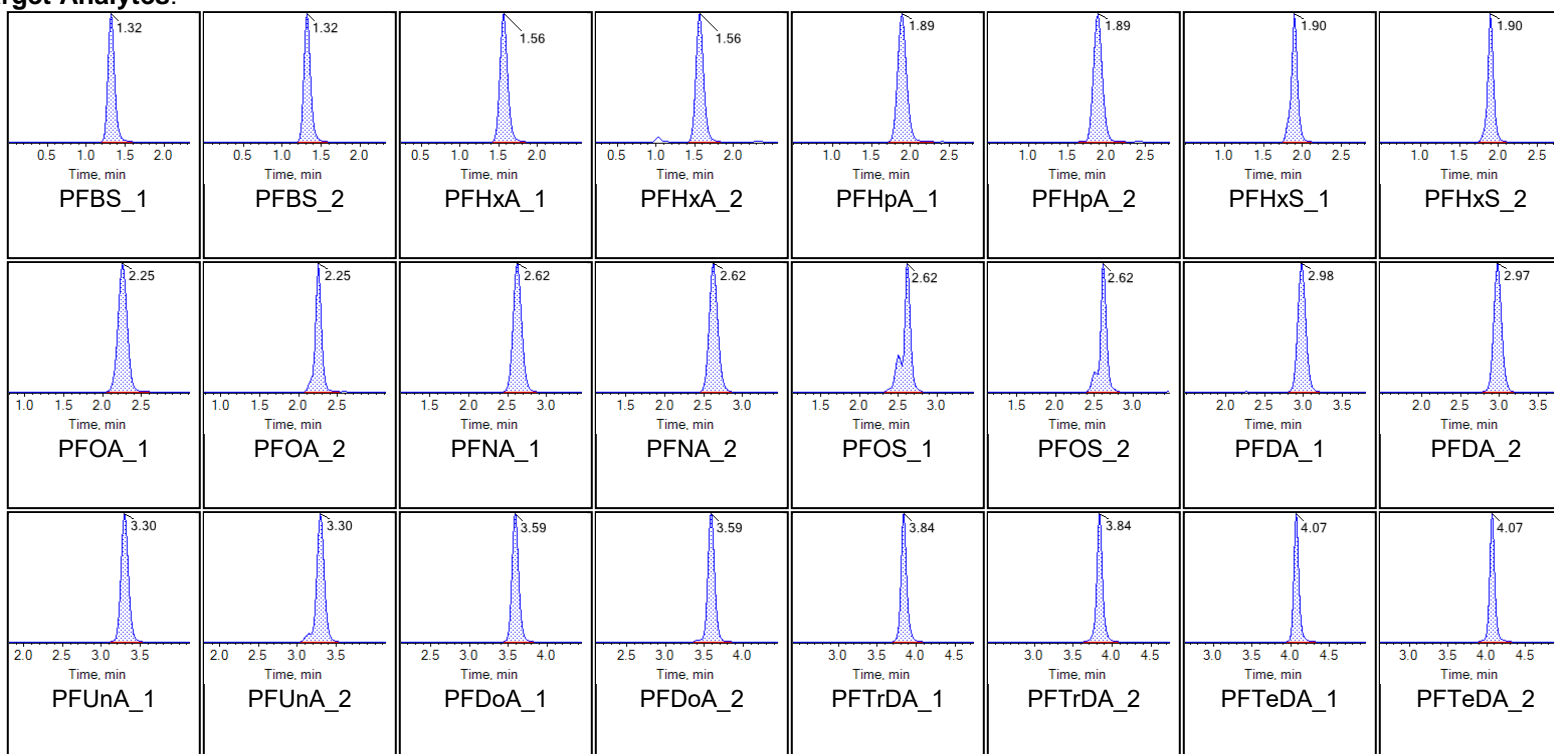
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| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD81 ICC | Injection Vial | 9 |
| Sample ID | ICC | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:59:12 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

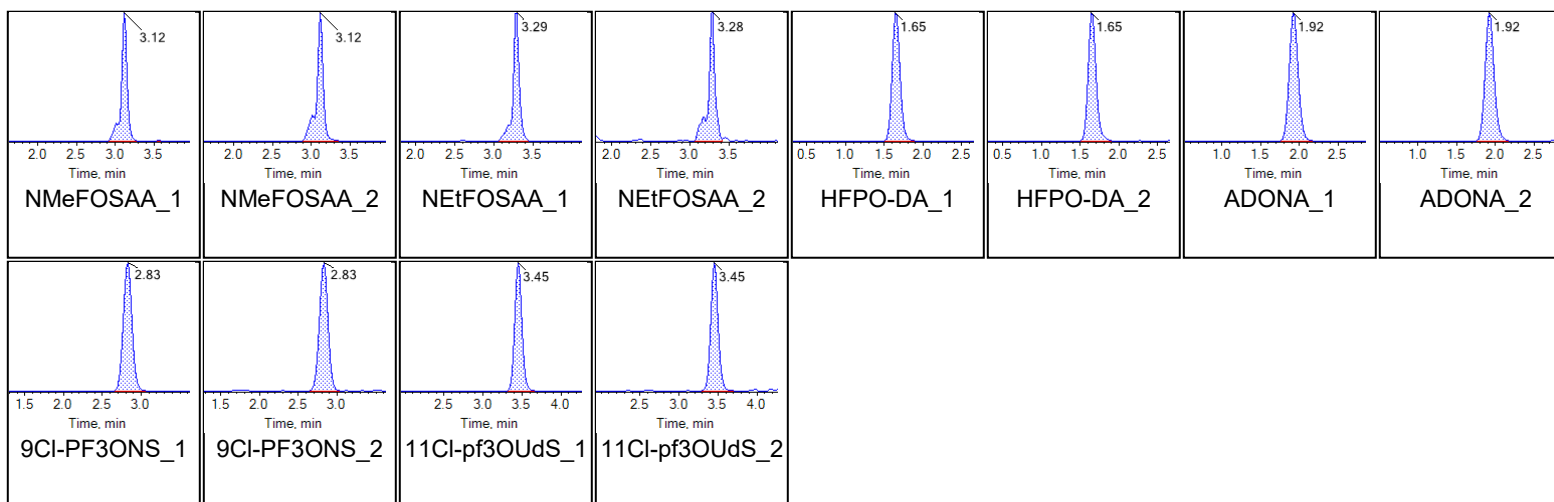
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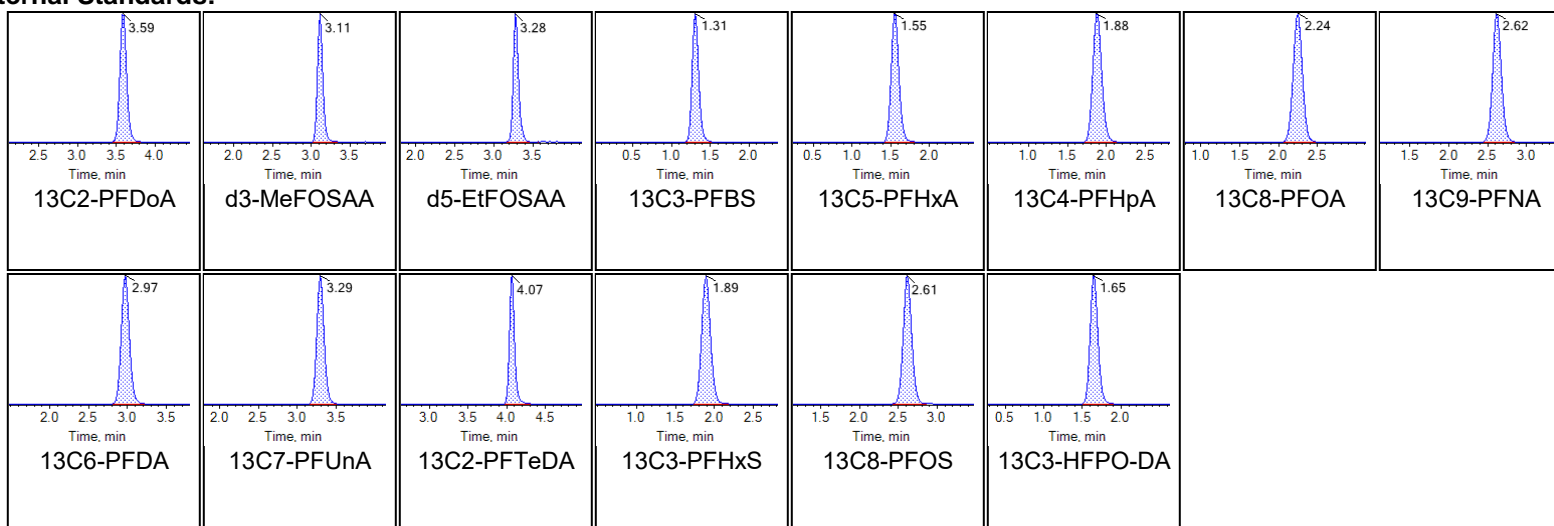




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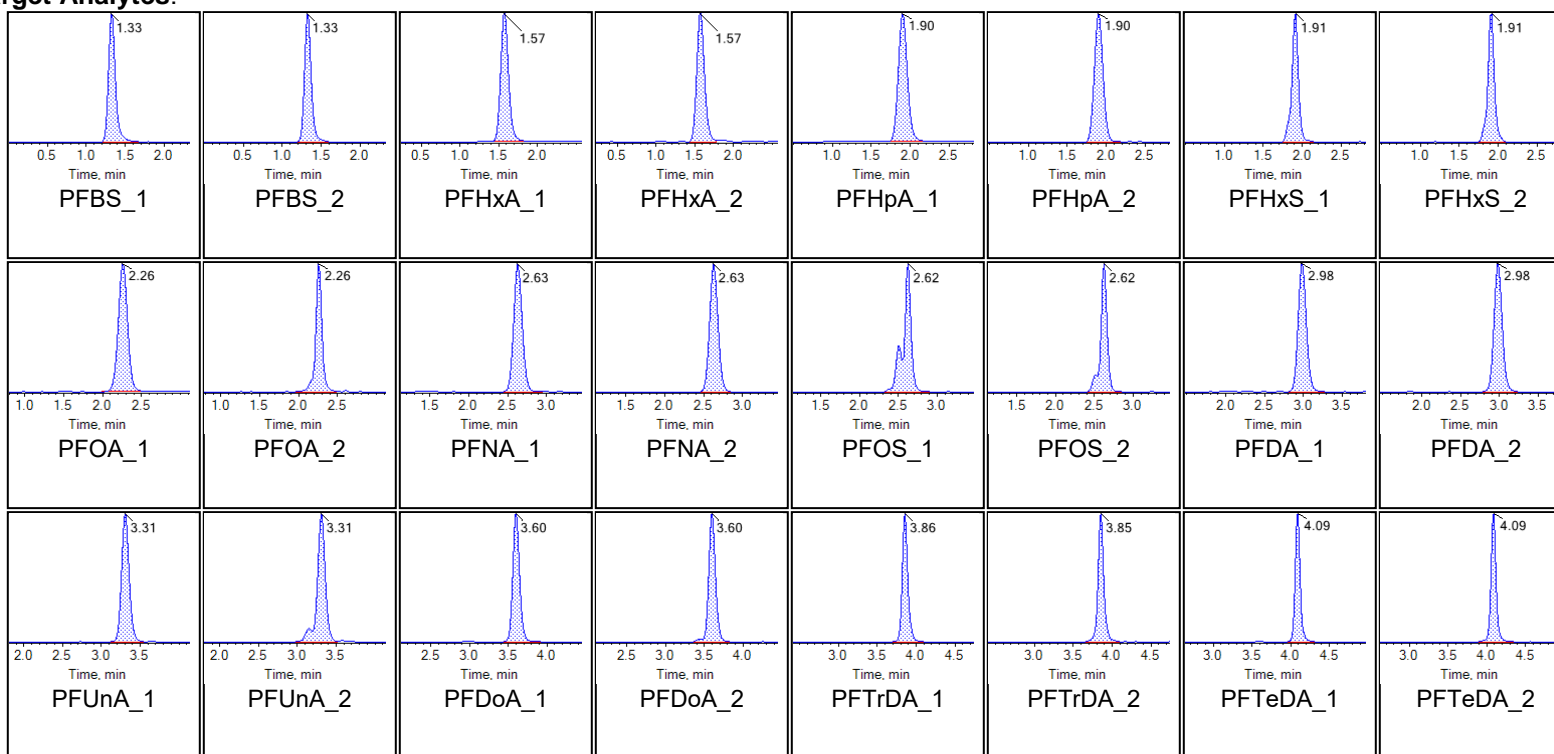
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| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 1:12:05 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

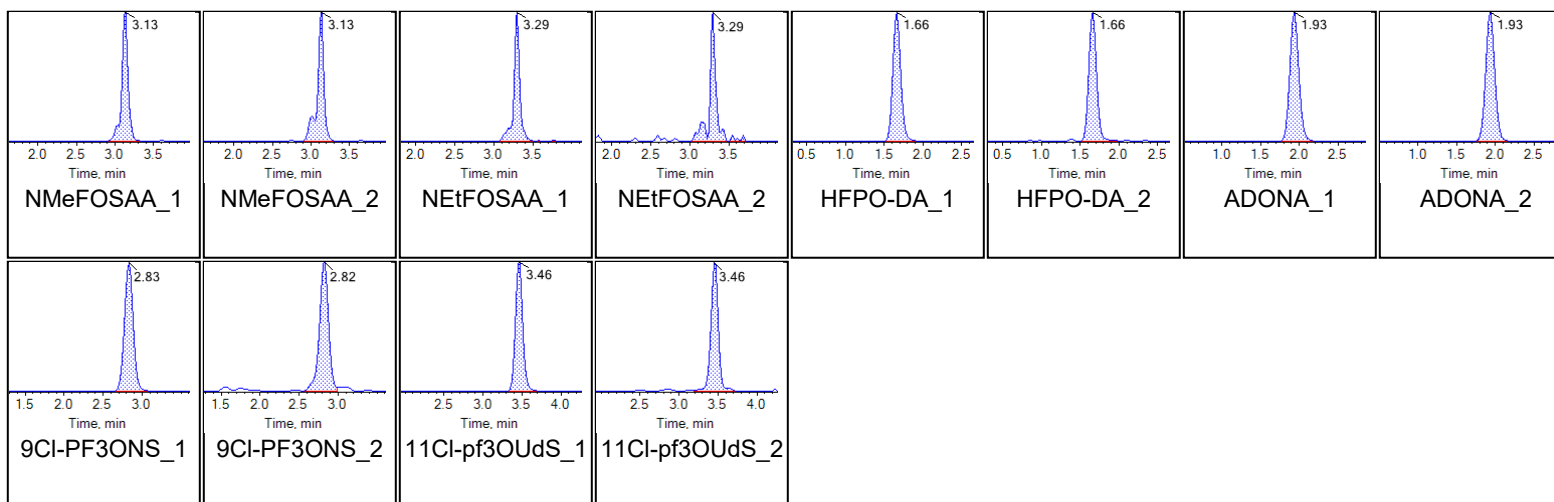
Chromatograms

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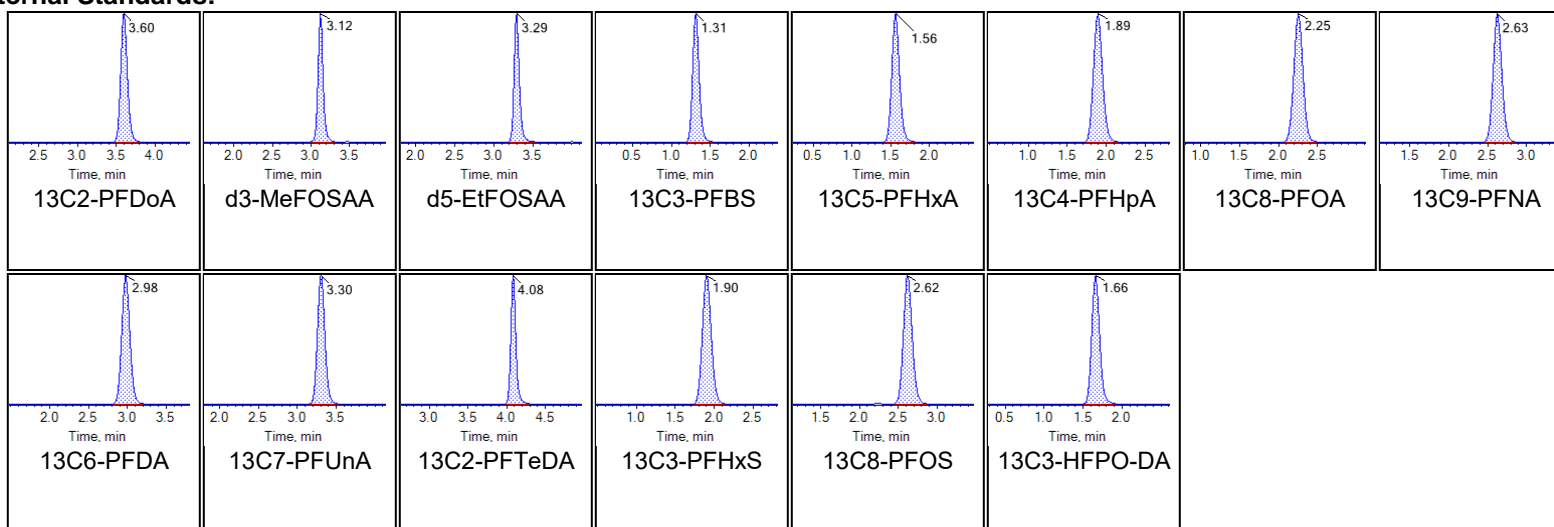




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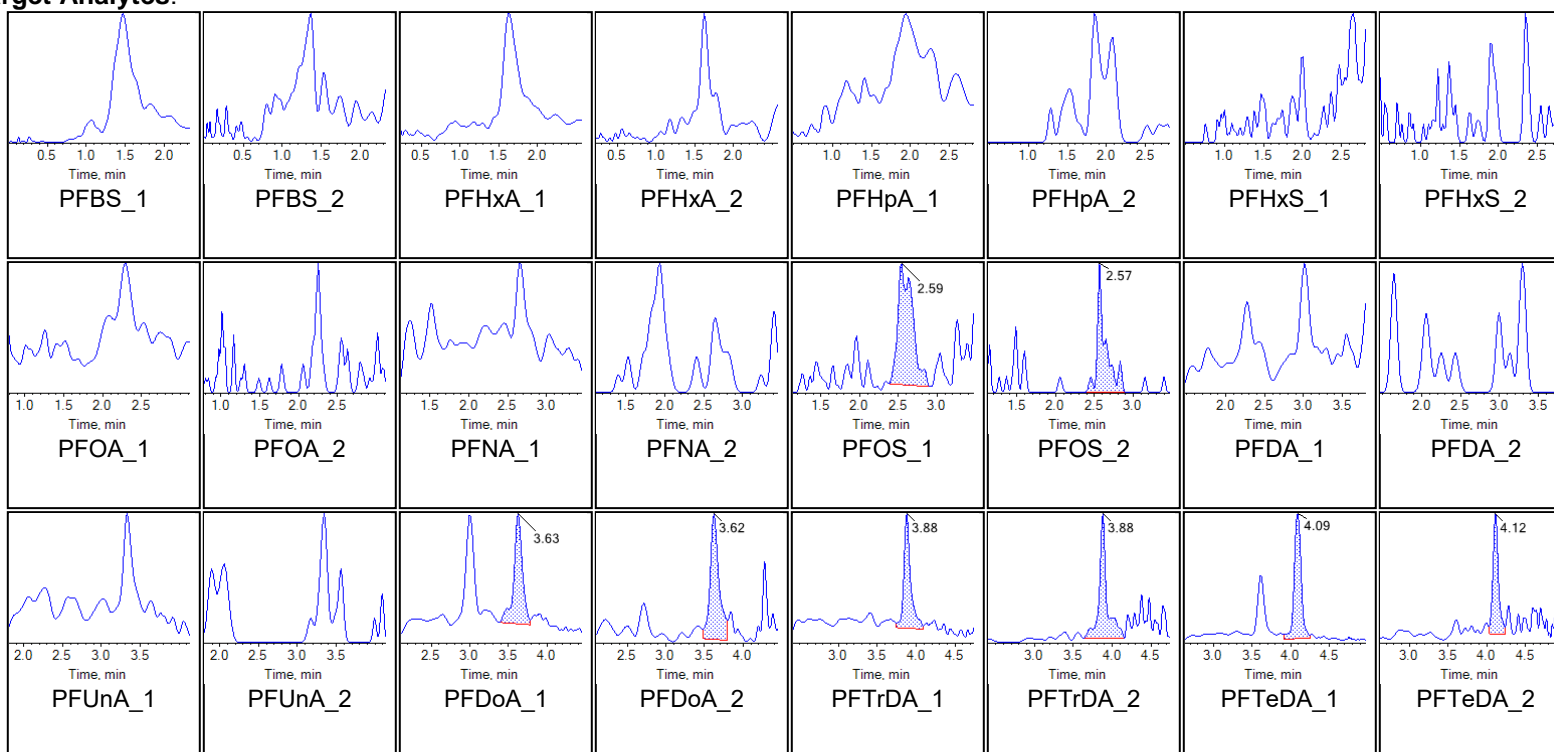
Chromatogram Report

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| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD80 IB | Injection Vial | 4 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 1:33:00 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

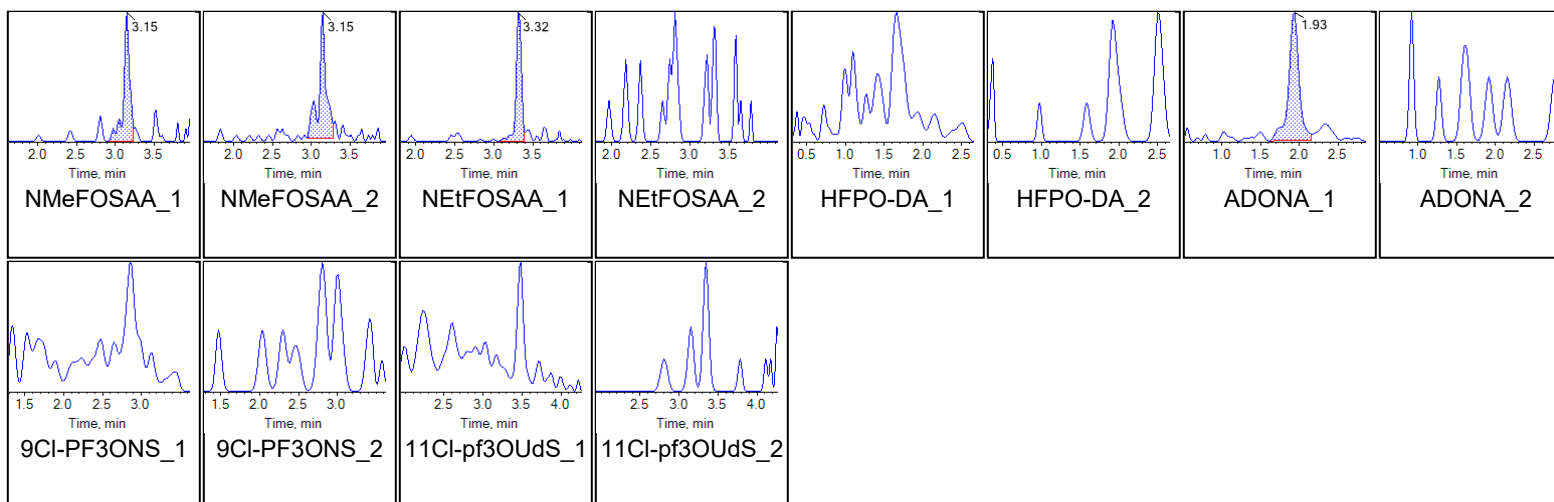
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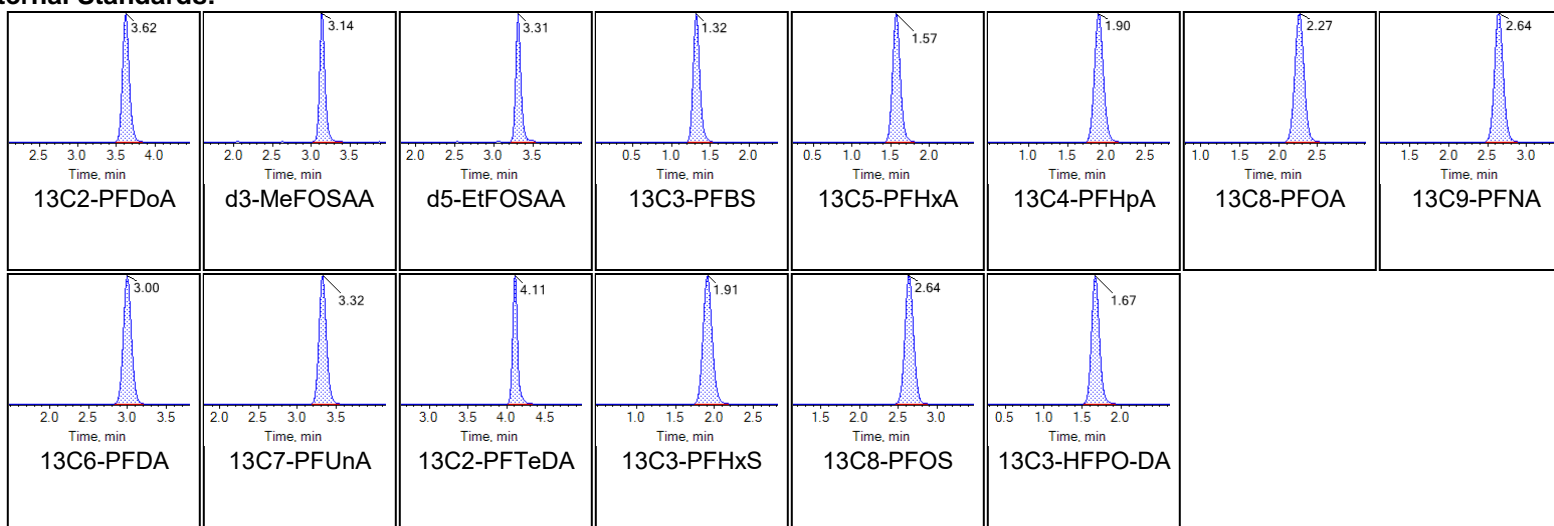




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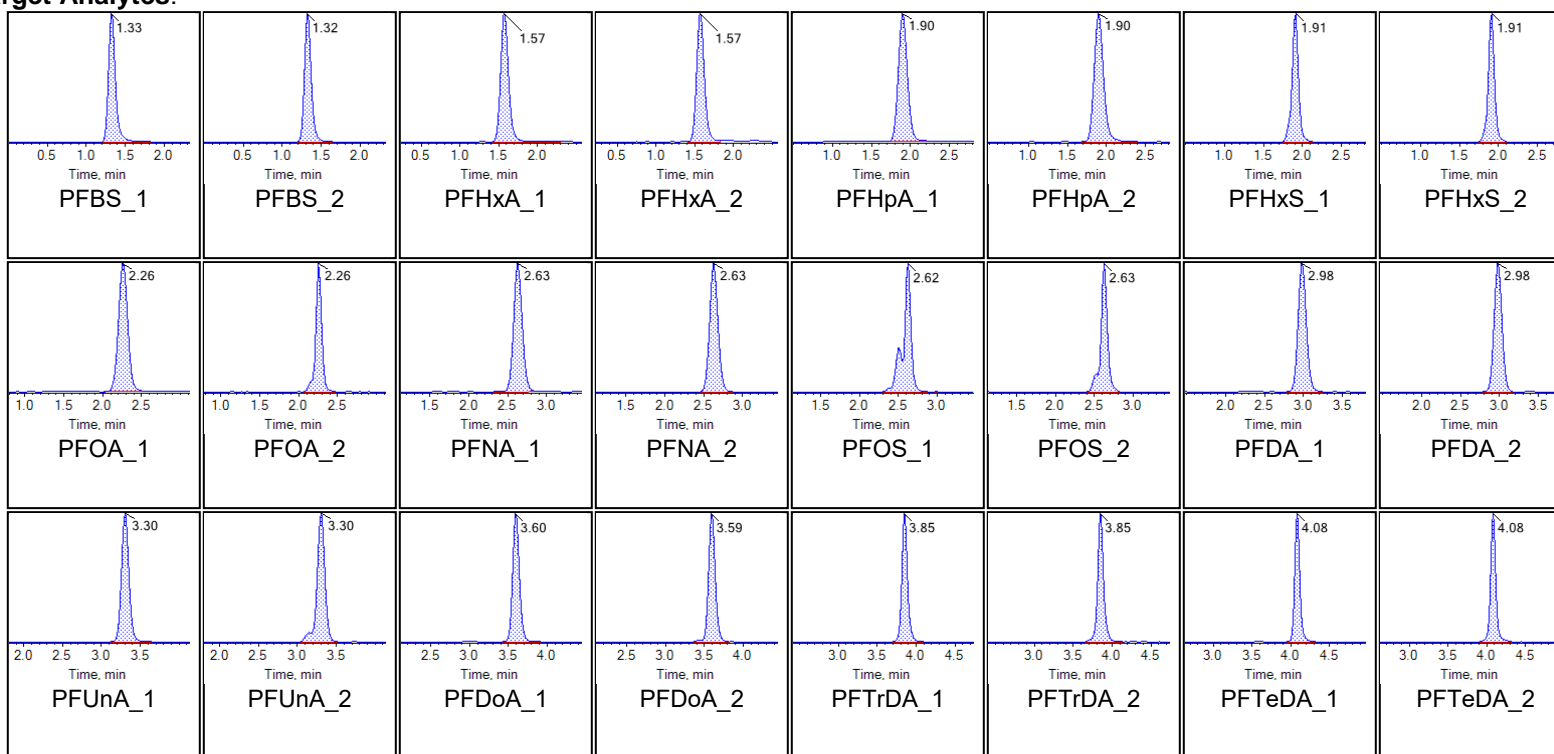
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| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:17:56 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

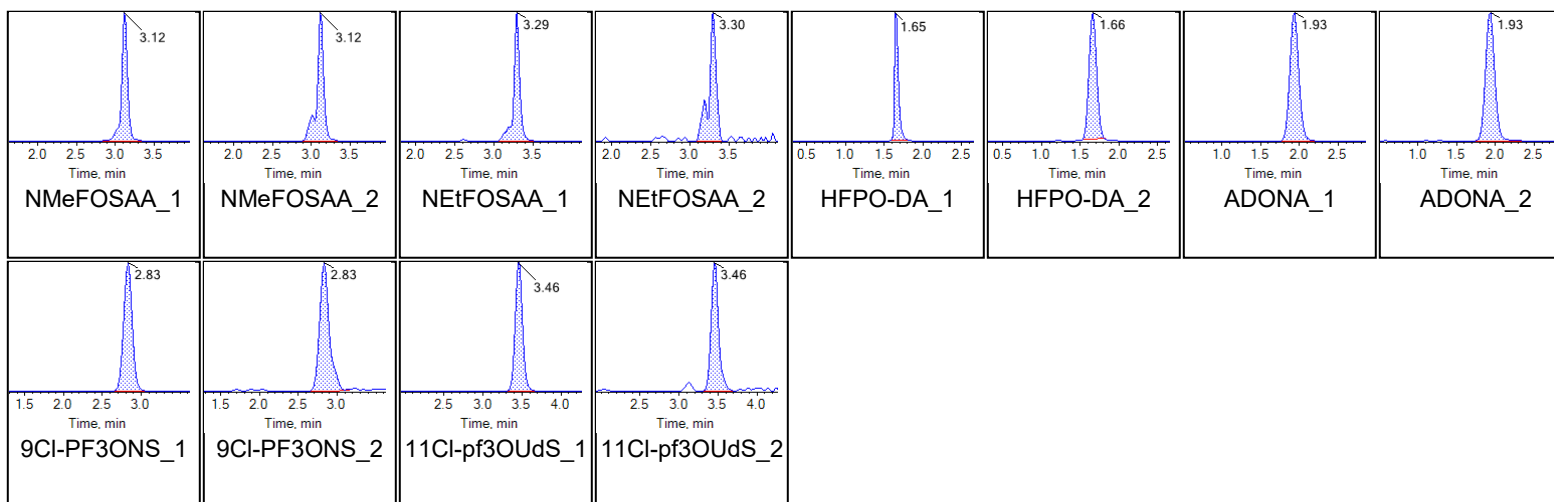
Chromatograms

Target Analytes:

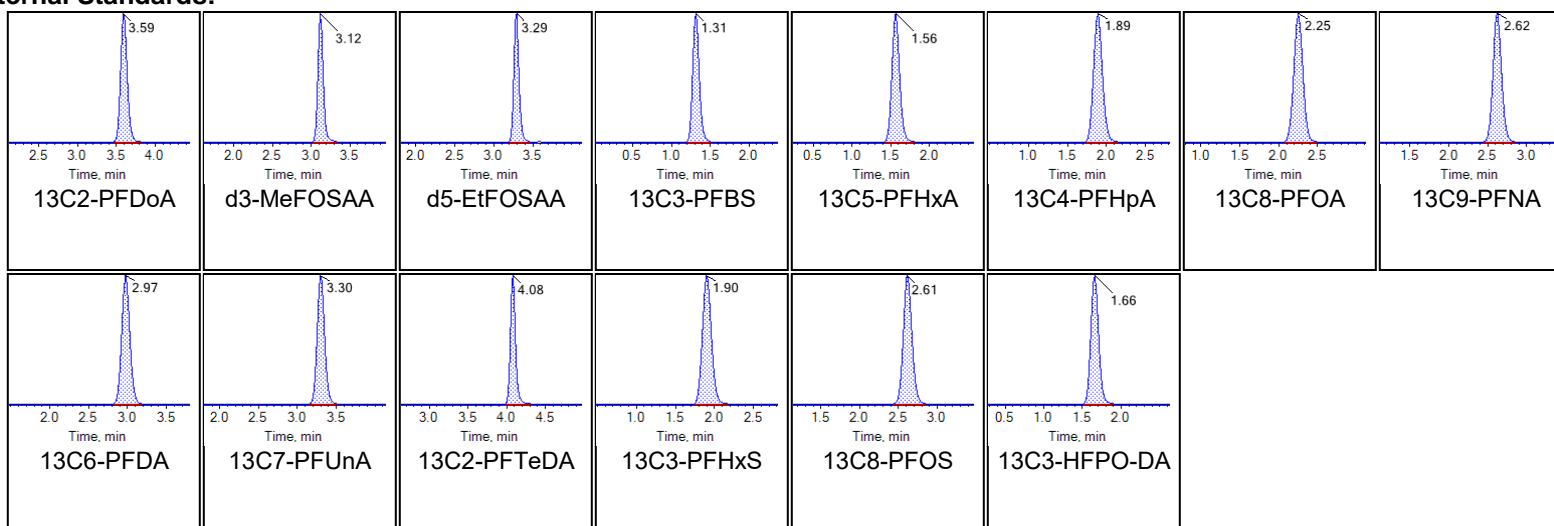




Chromatogram Report

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Printed: 10/11/2020 6:23:59 PM

Internal Standards:





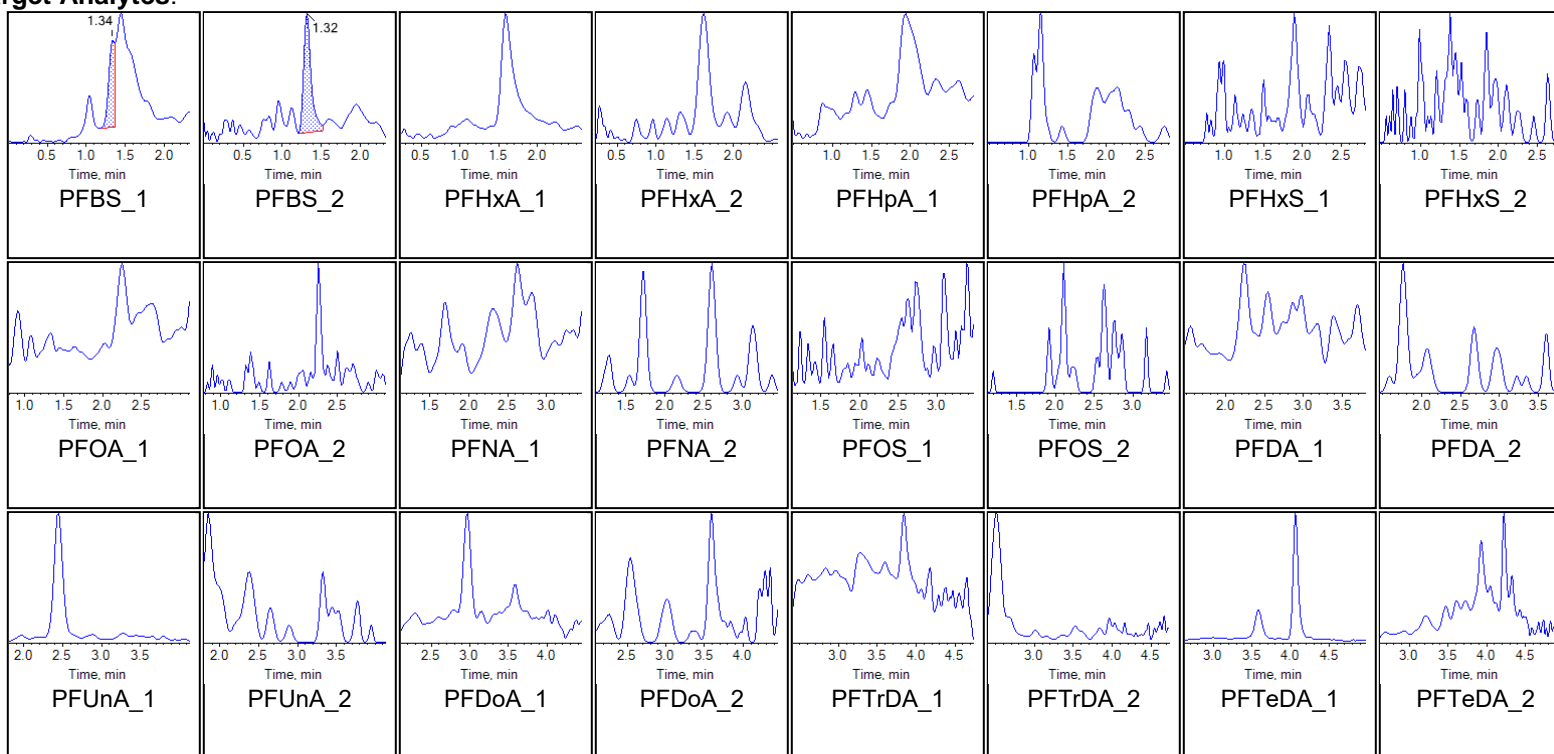
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | DB253PB-FS(0) | Injection Vial | 25 |
| Sample ID | Procedural Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:38:54 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

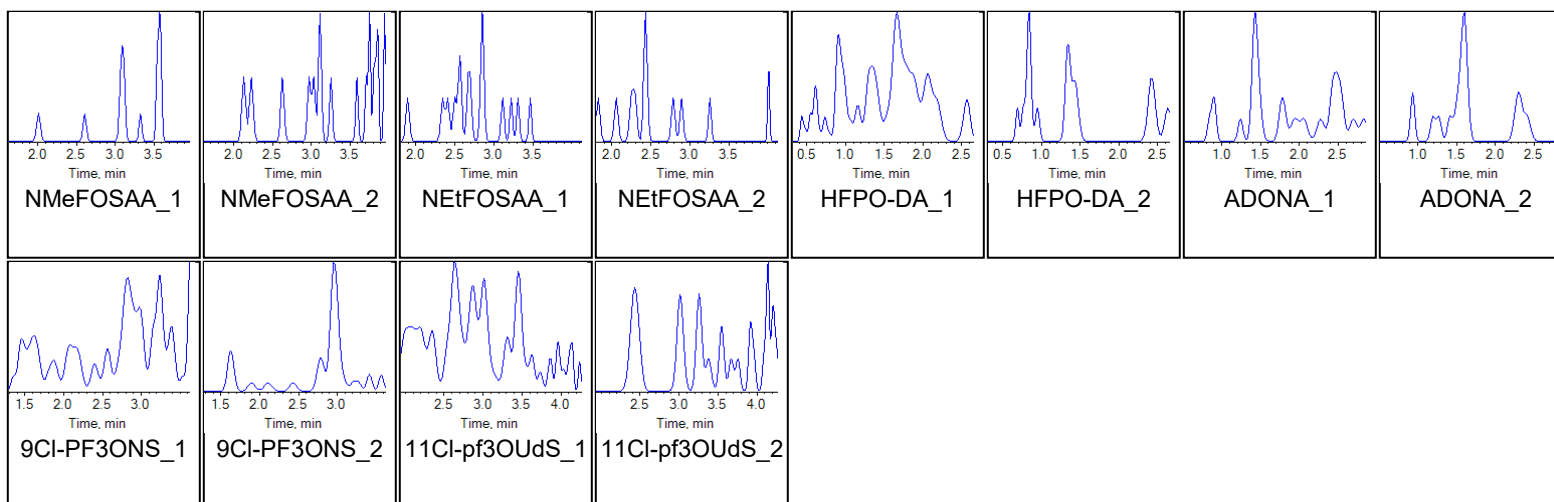
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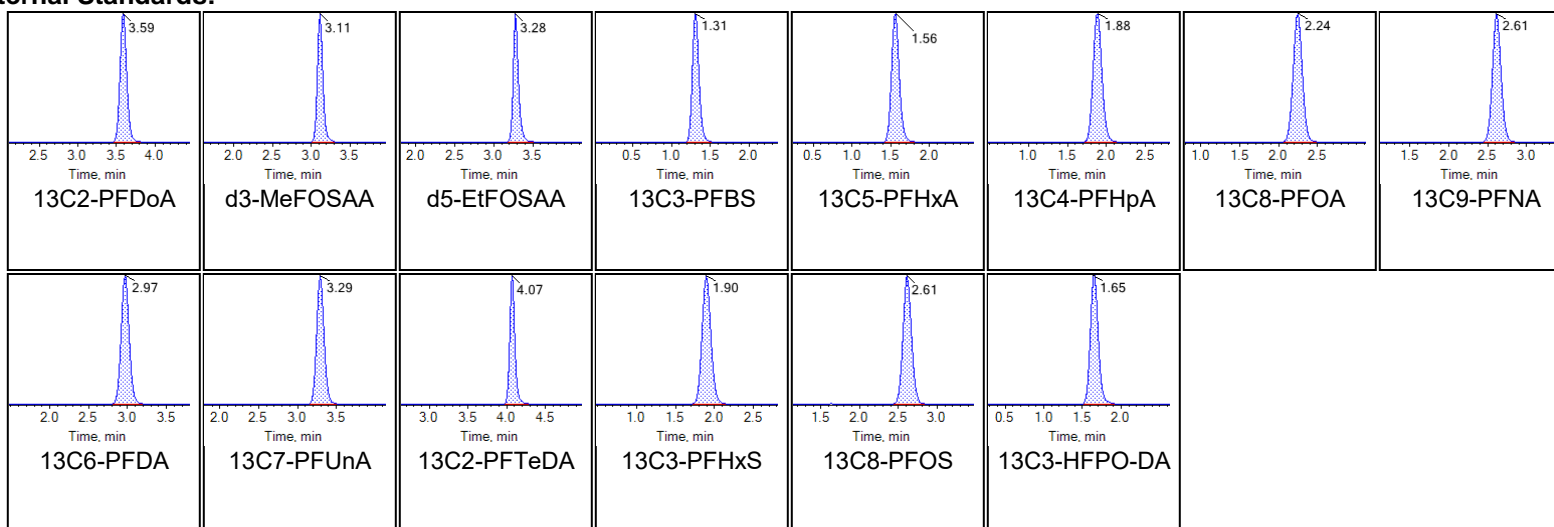




Chromatogram Report

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Internal Standards:





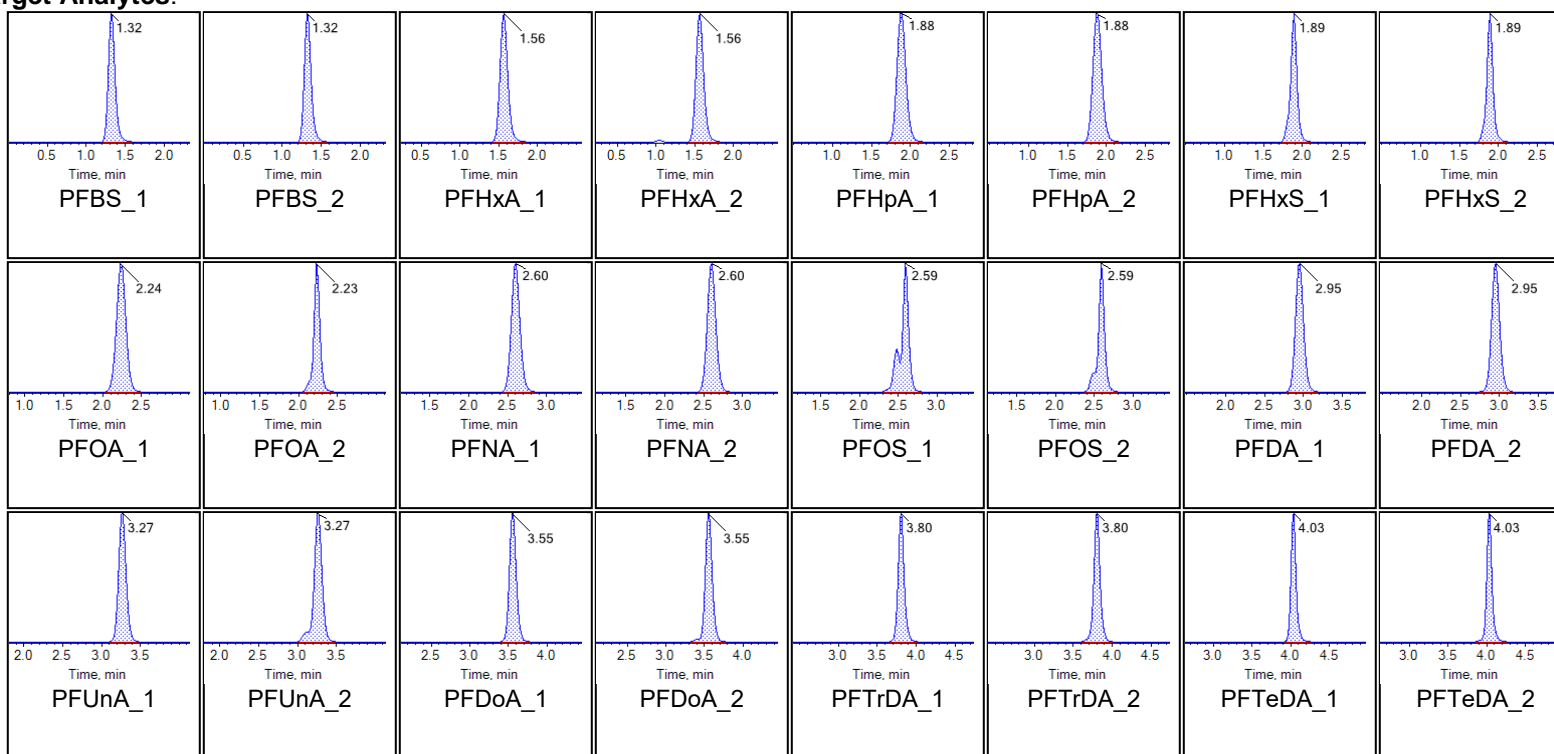
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|---------------------------|-------------------------|----------------------------|
| Sample Name | DB254LCS-FS(0) | Injection Vial | 26 |
| Sample ID | Laboratory Control Sample | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:49:21 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

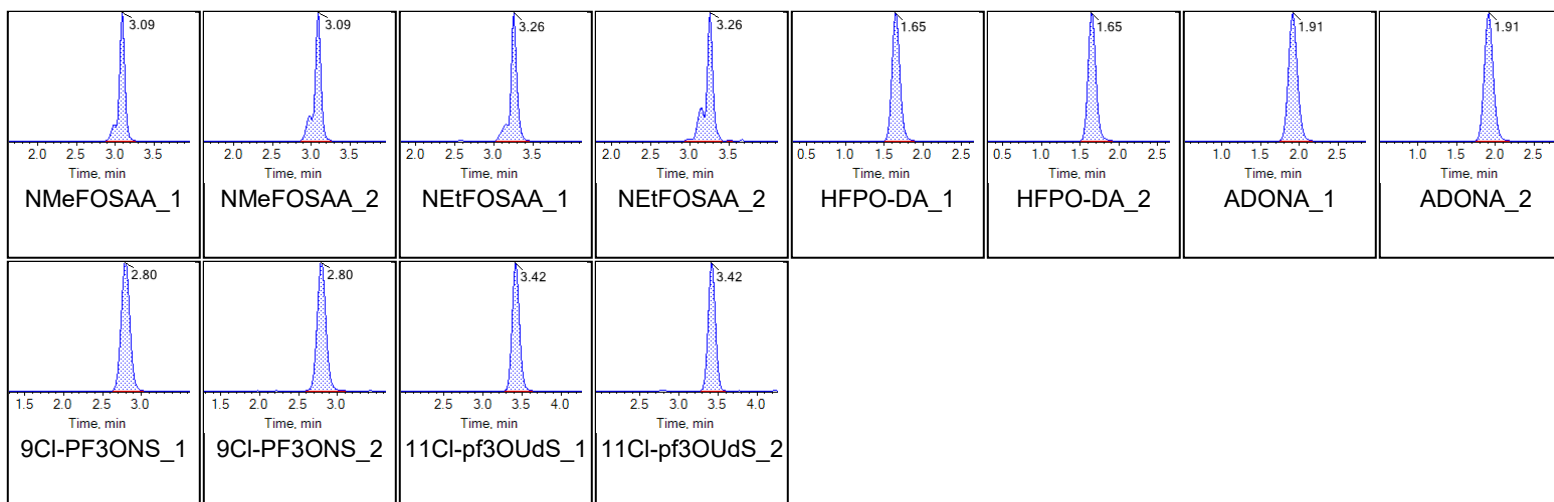
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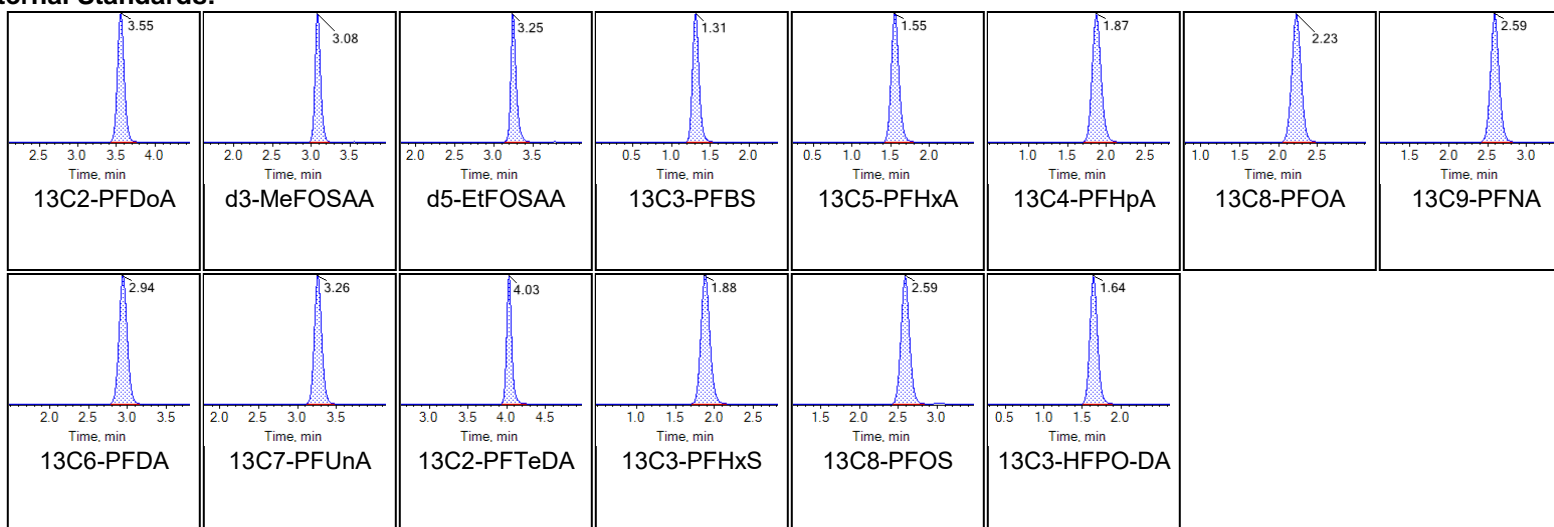




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Internal Standards:





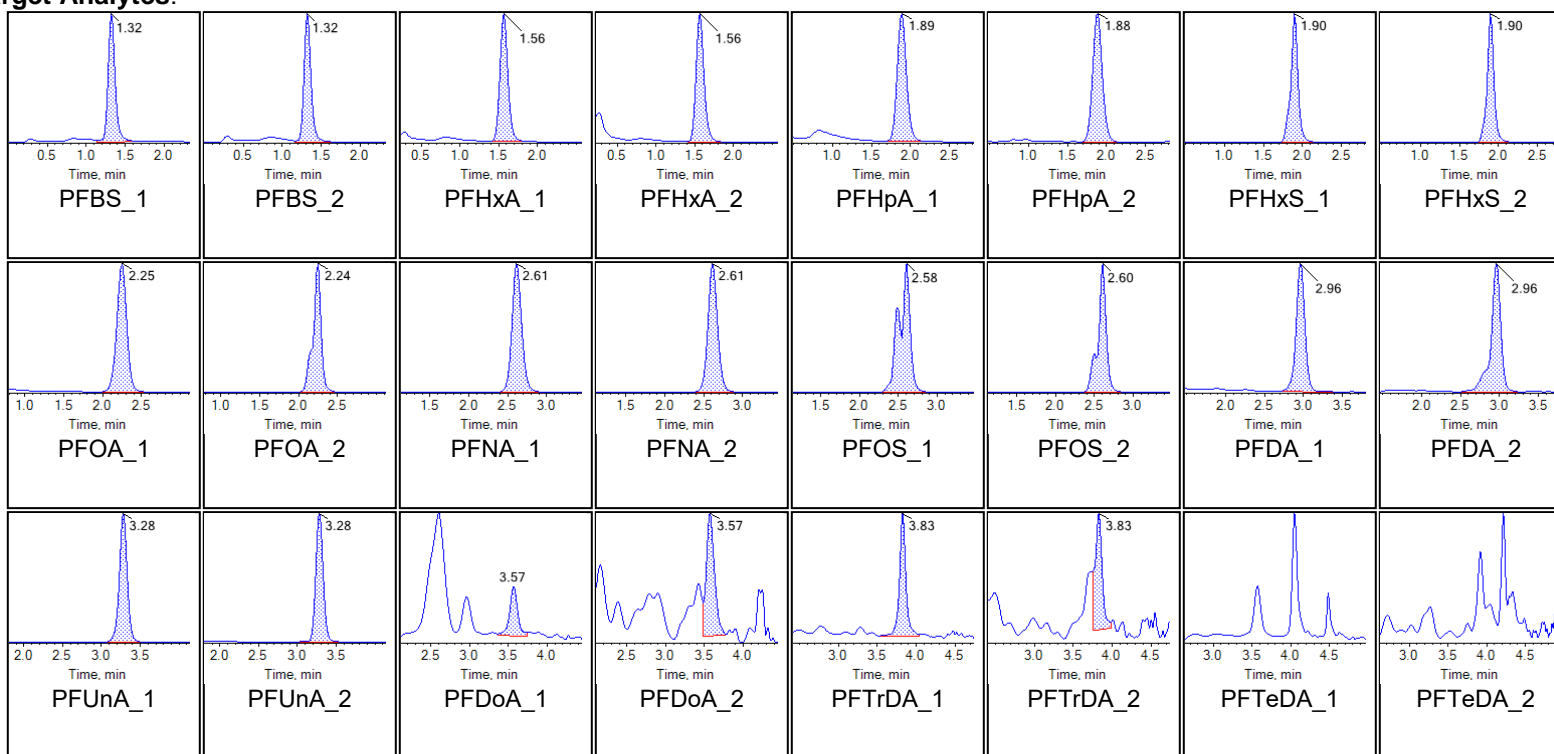
Chromatogram Report

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Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1644-FS1(0) | Injection Vial | 27 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:59:49 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

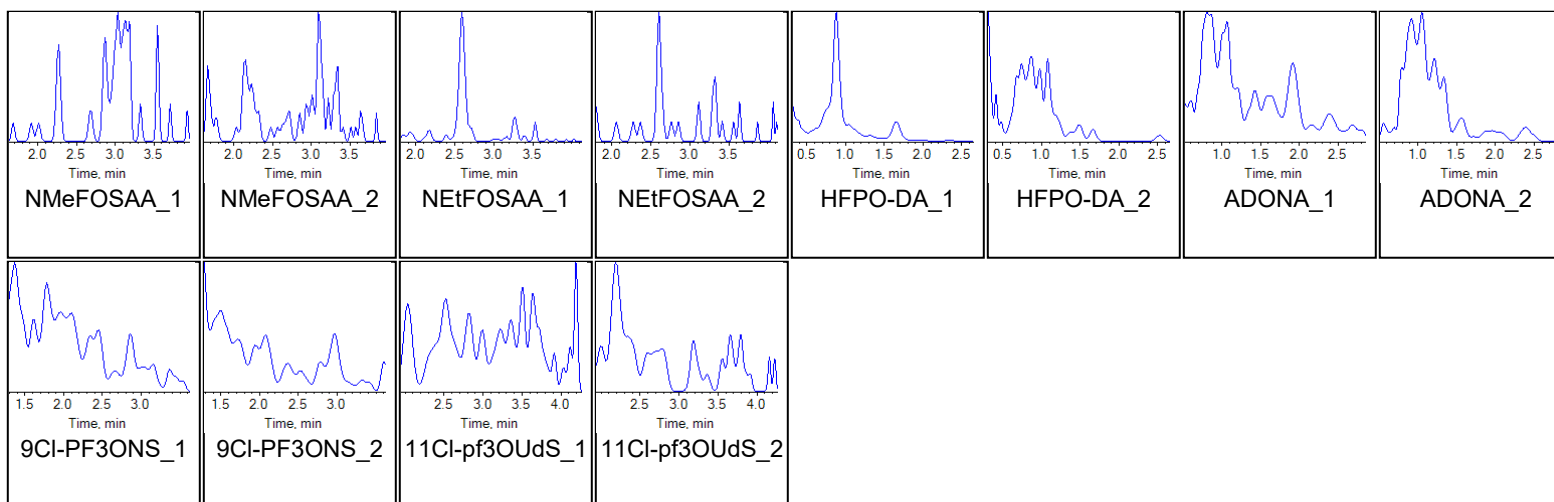
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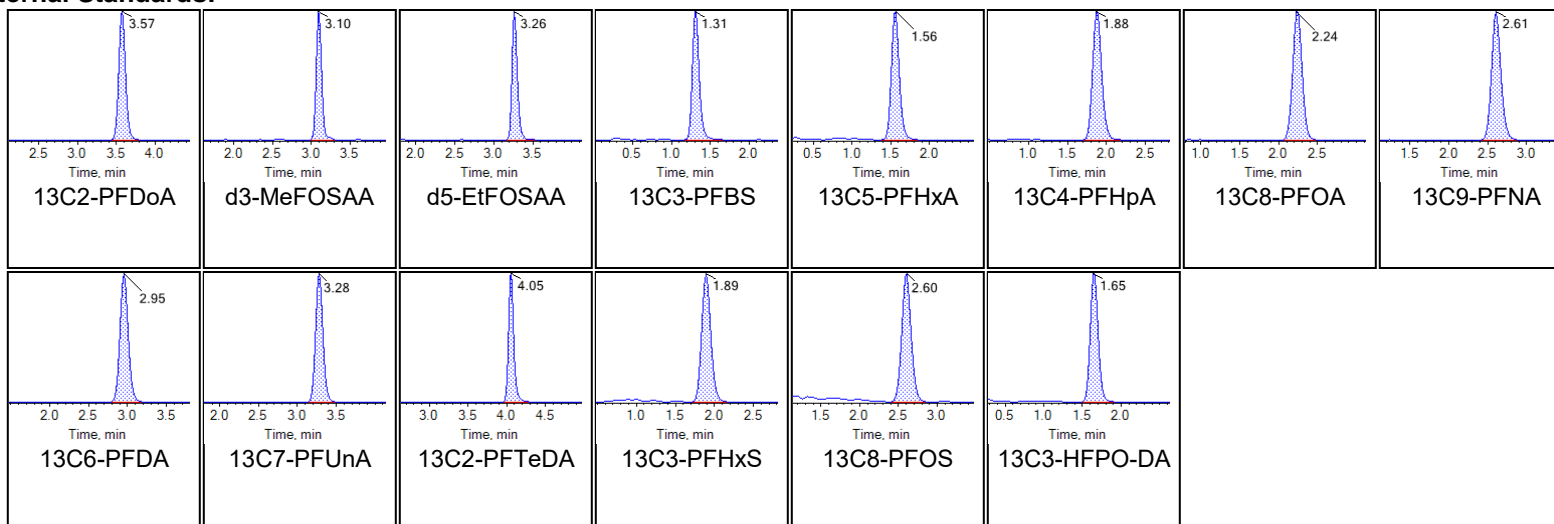




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Created with Analyst Reporter
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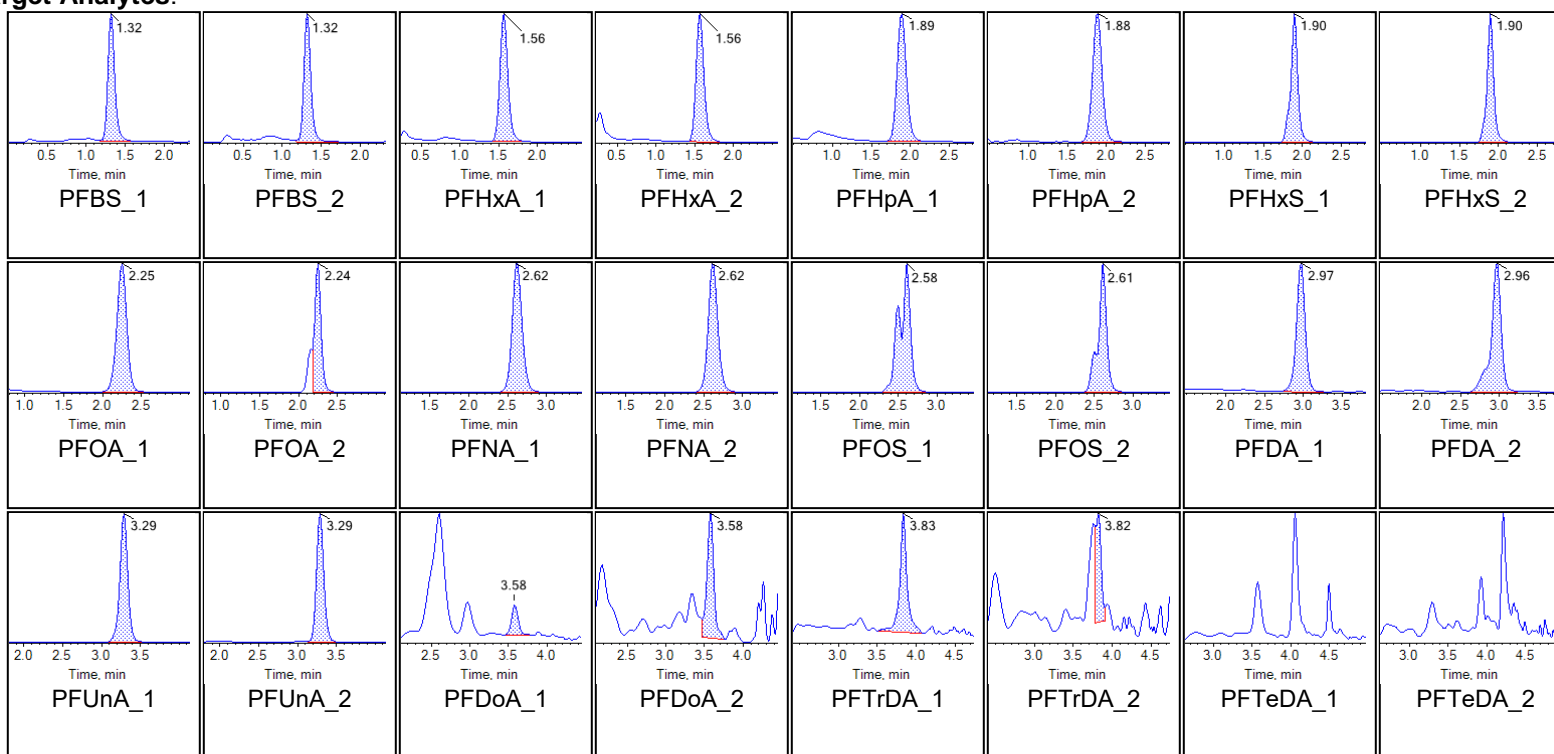
Chromatogram Report

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Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1645-FS1(0) | Injection Vial | 28 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:10:17 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

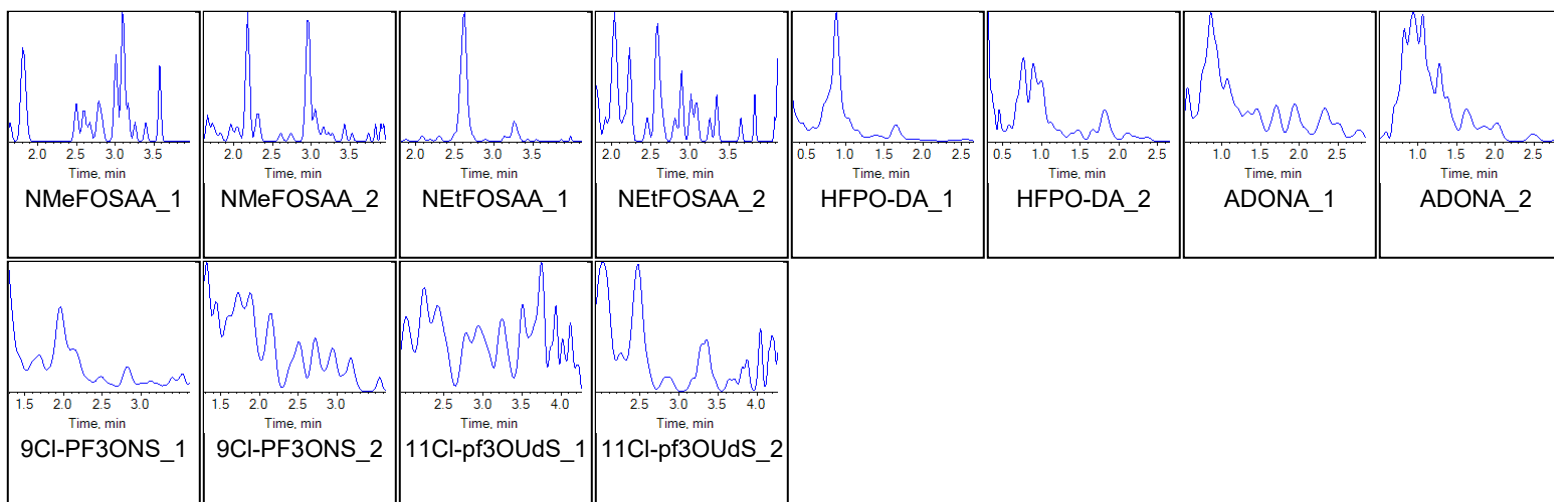
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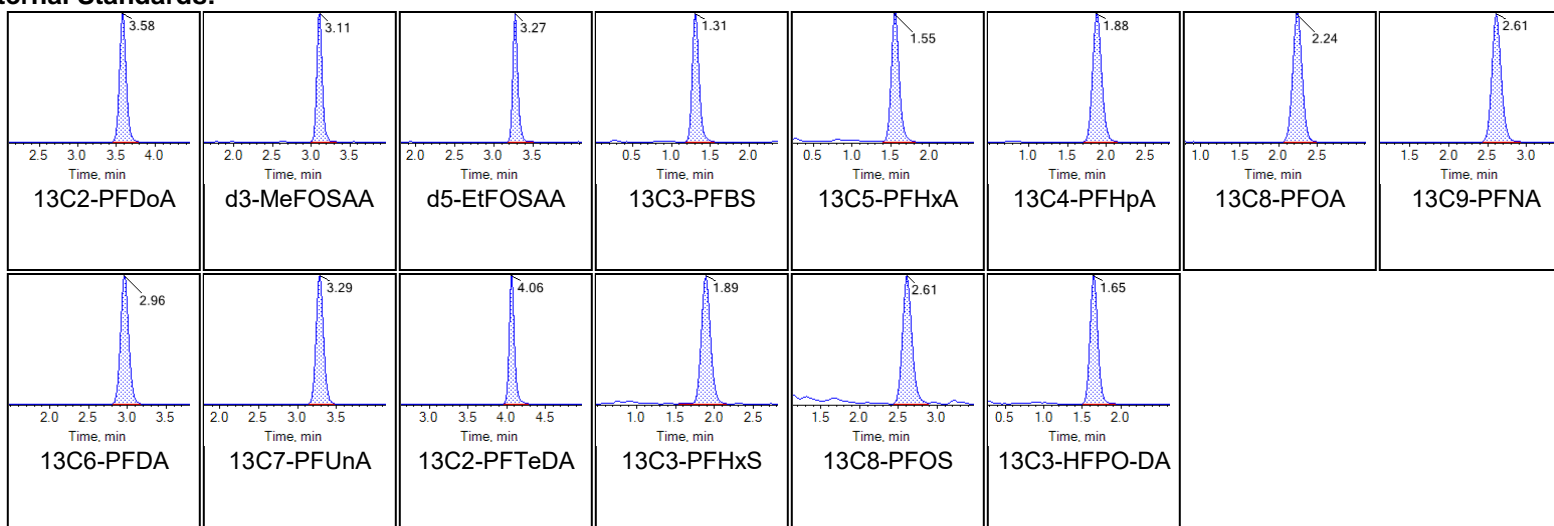




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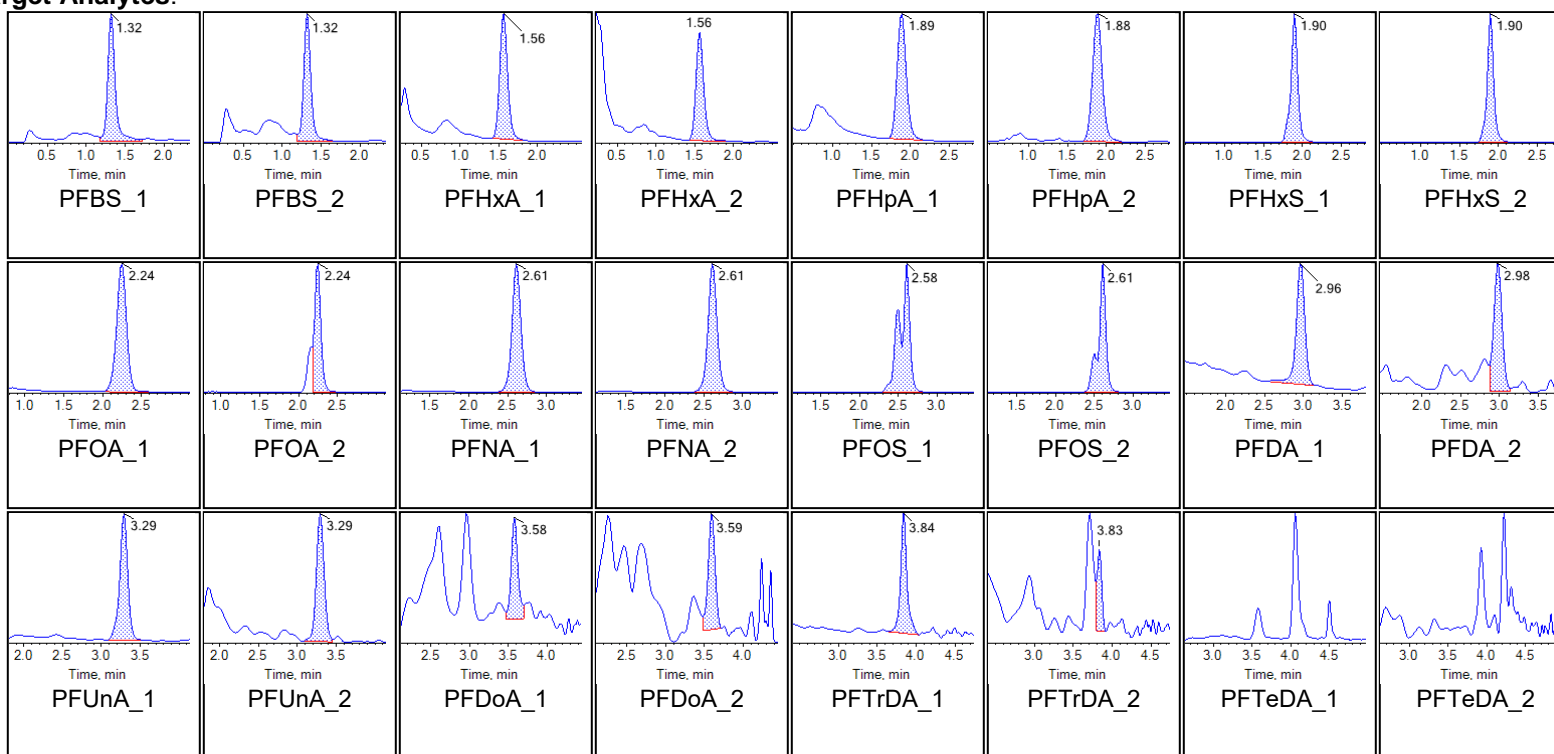
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1646-FS1(0) | Injection Vial | 29 |
| Sample ID | CBD-AOA-SW03-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:20:45 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

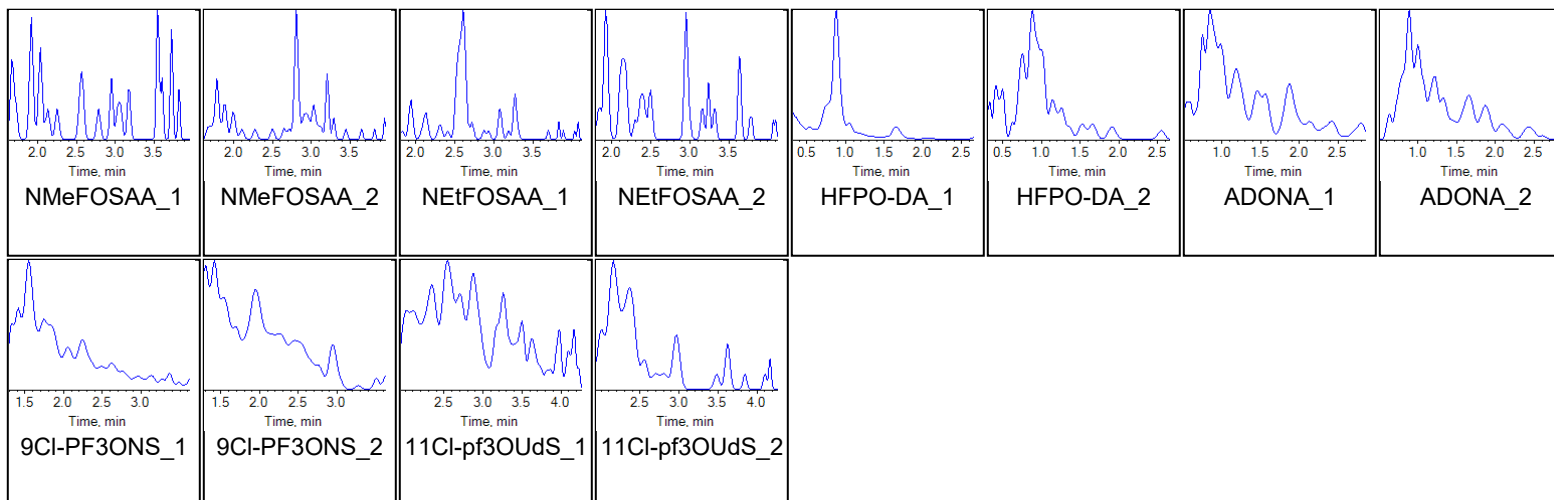
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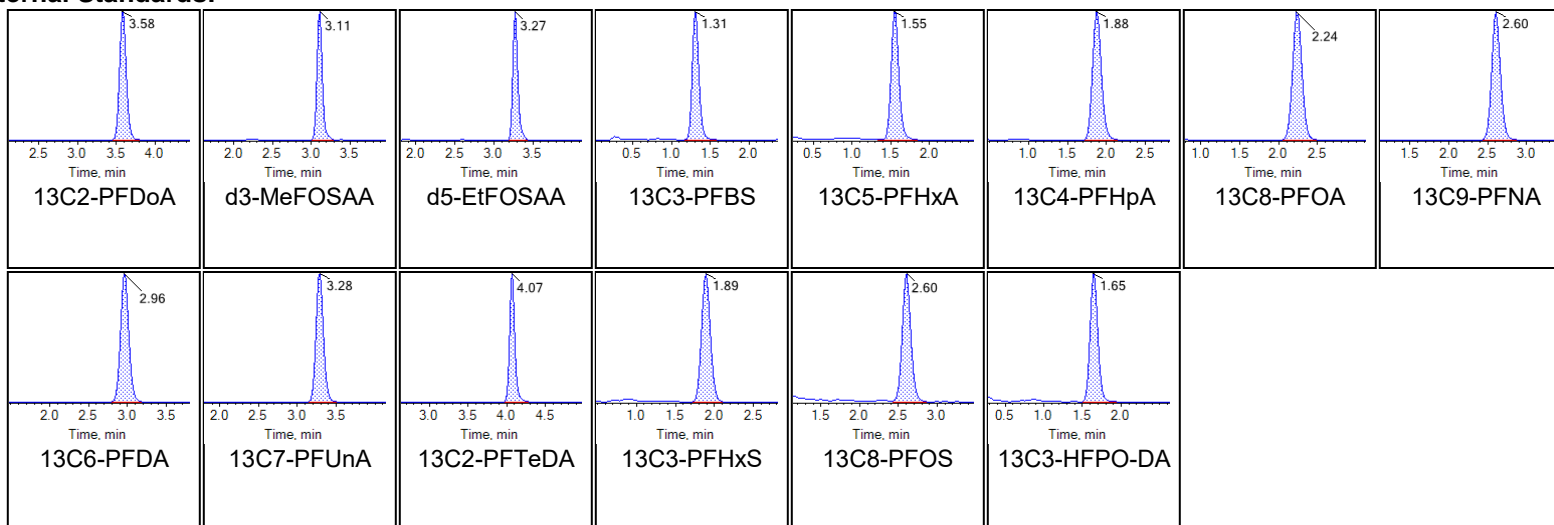




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Internal Standards:





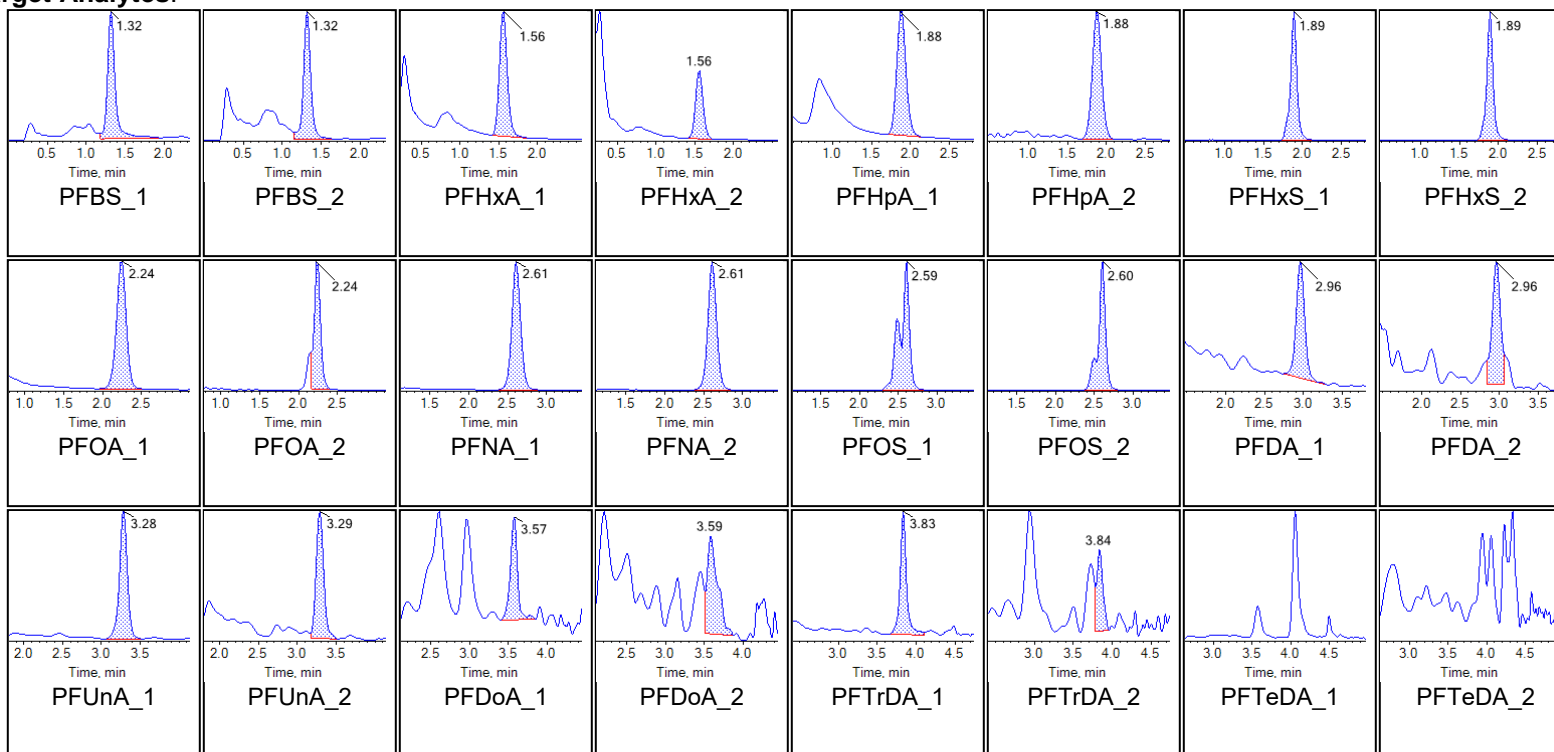
Chromatogram Report

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Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1647-FS1(0) | Injection Vial | 30 |
| Sample ID | CBD-AOA-SW04-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:31:12 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

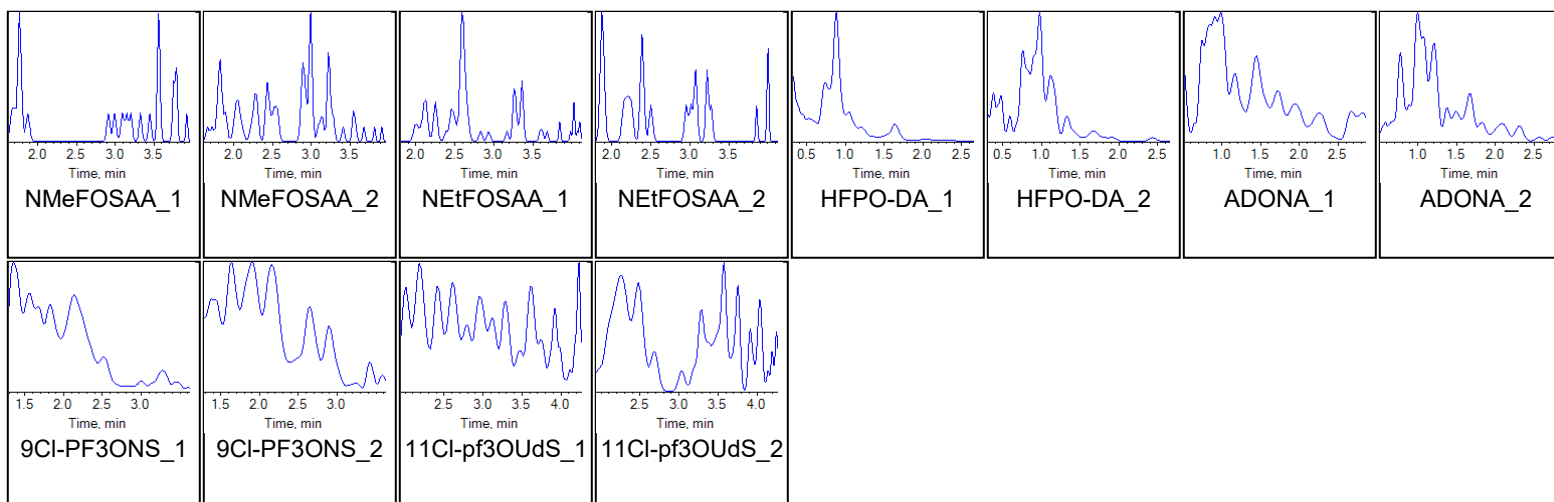
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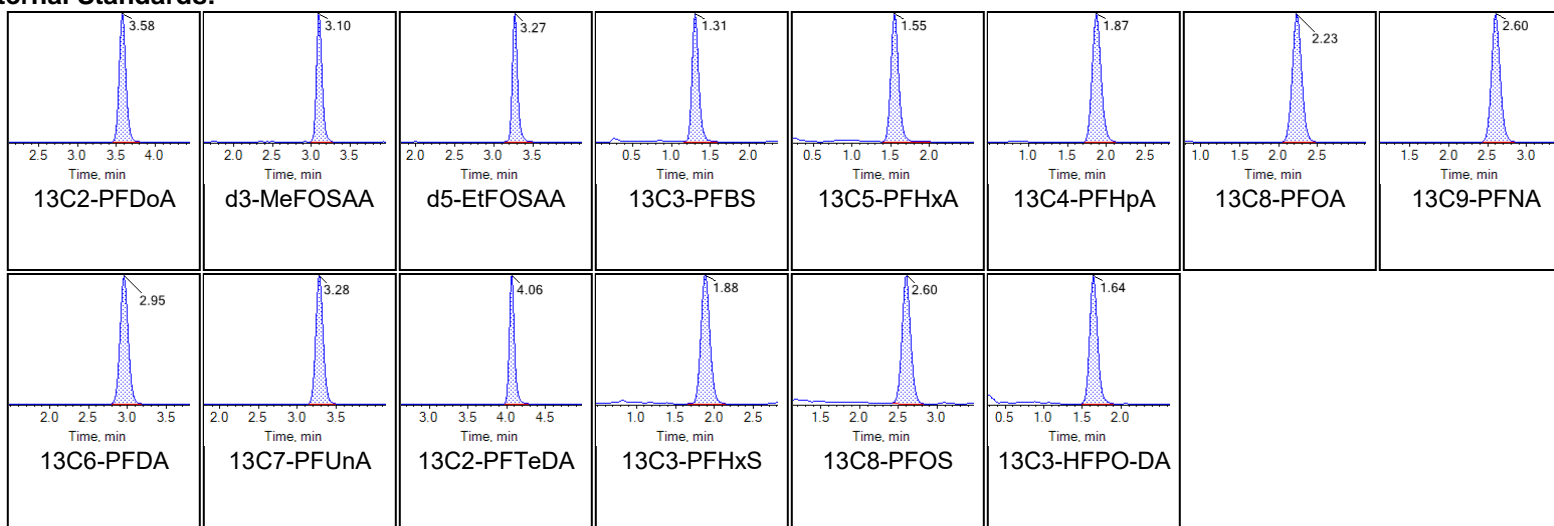




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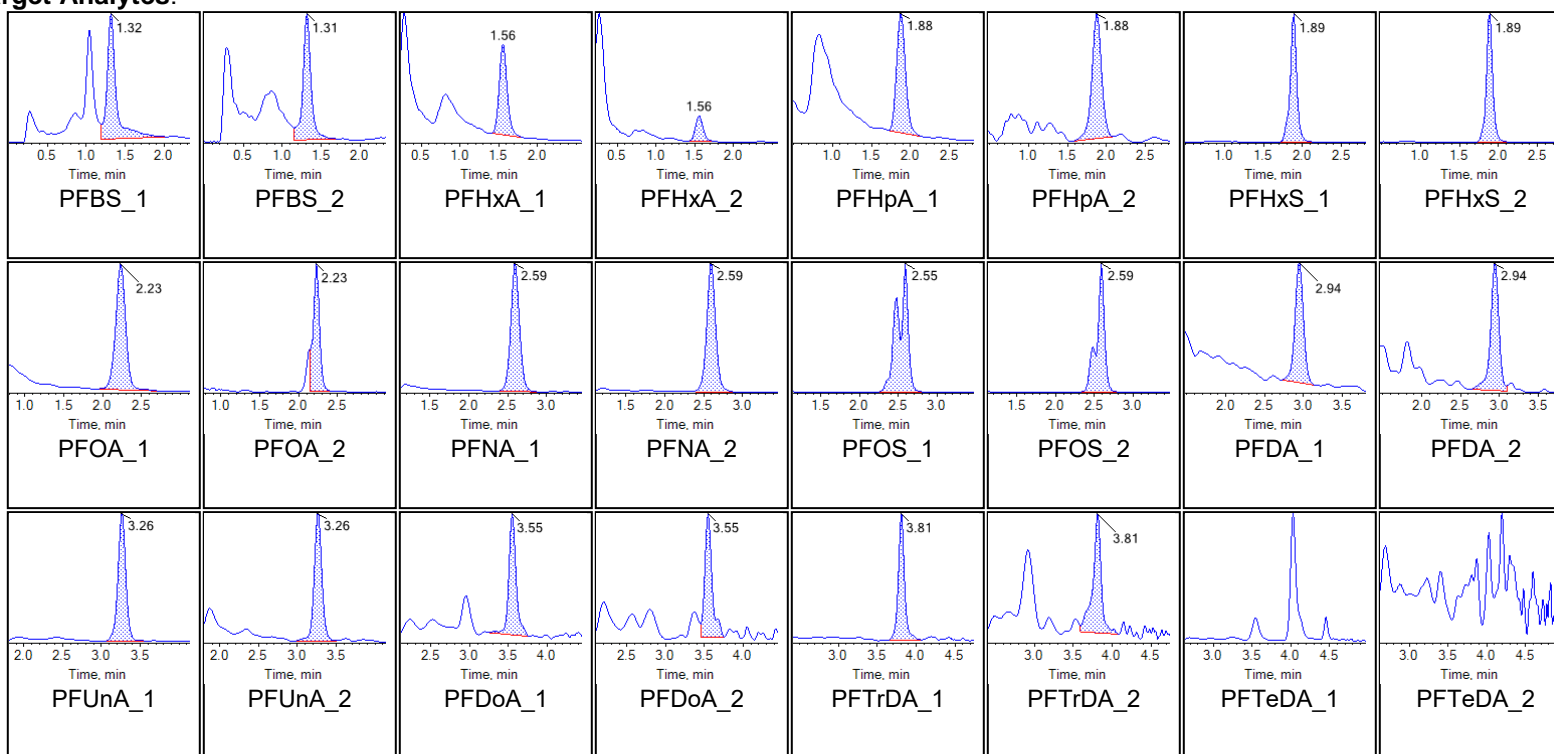
Chromatogram Report

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Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1651-FS1(0) | Injection Vial | 31 |
| Sample ID | CBD-AOA-SW02-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:41:40 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

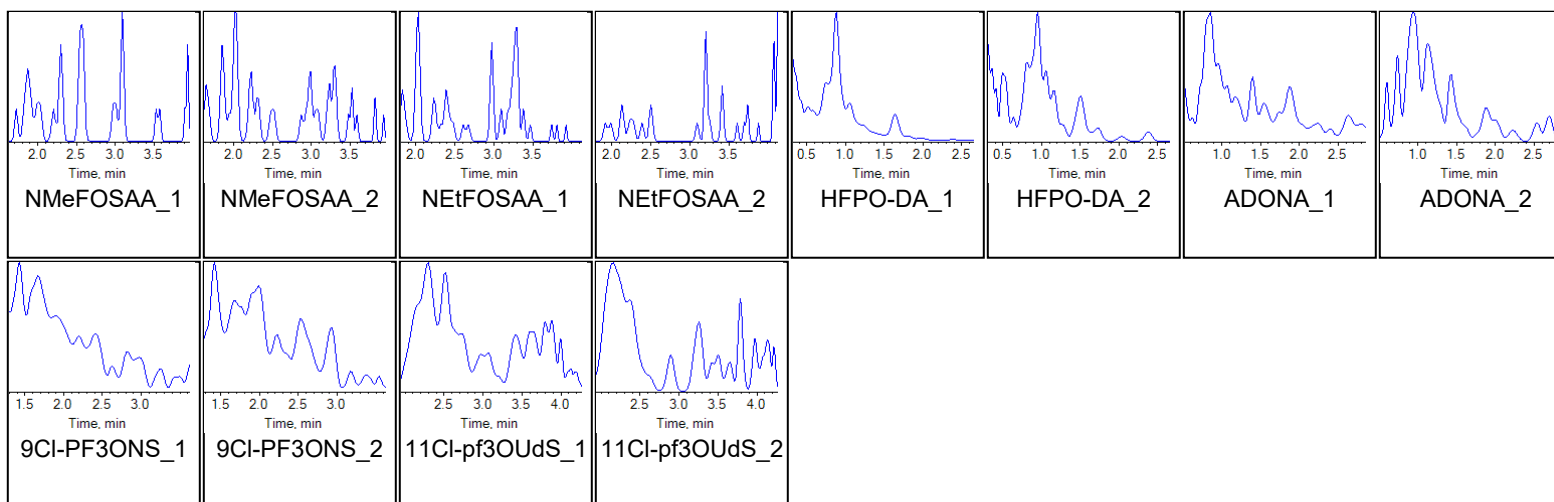
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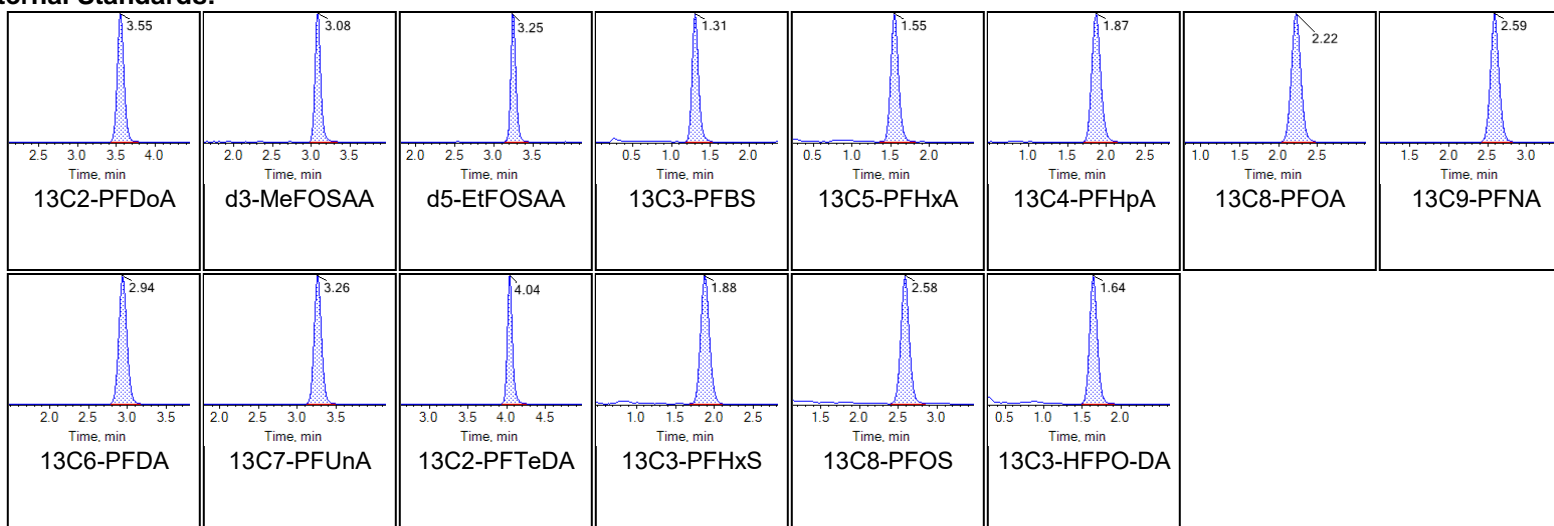




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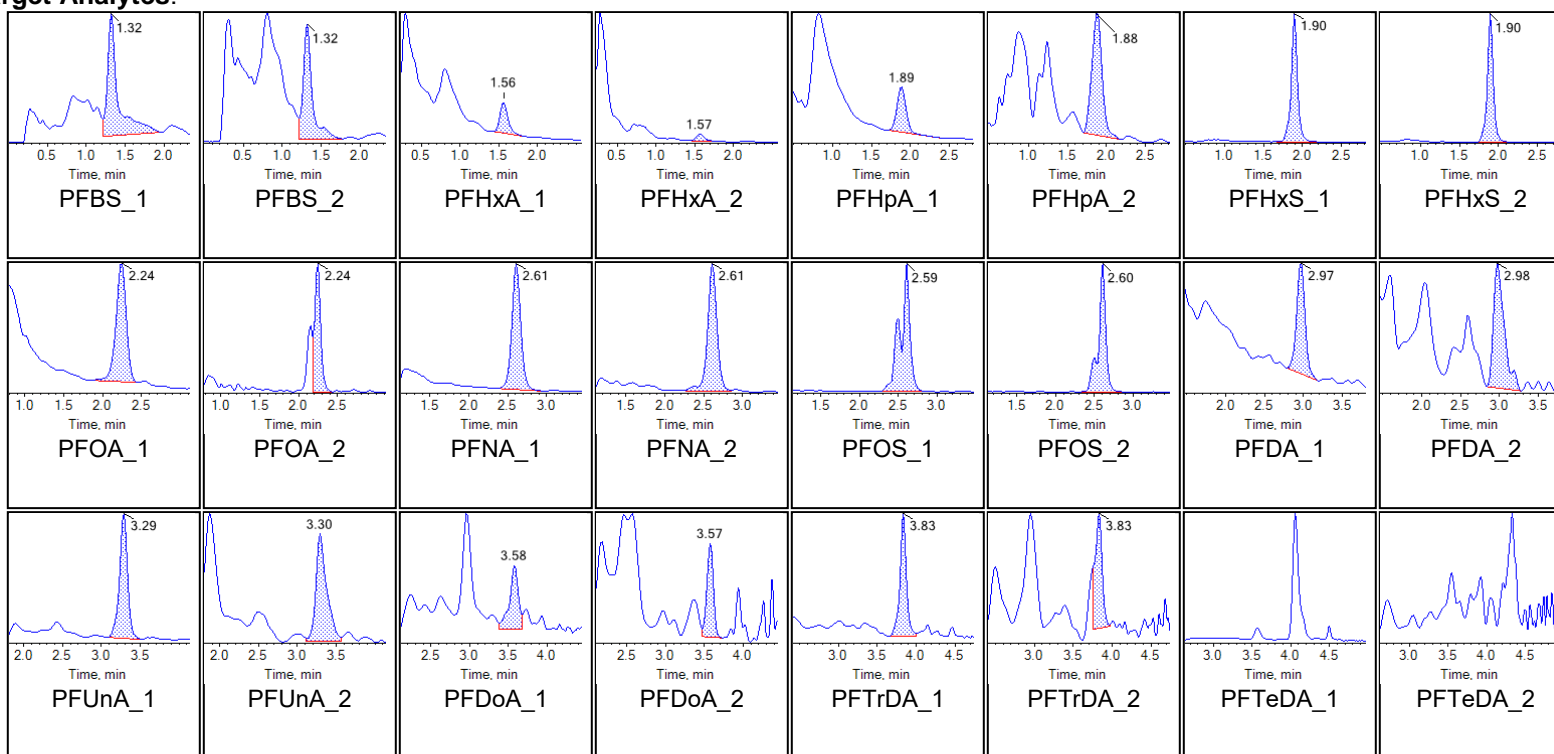
Chromatogram Report

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Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1654-FS1(0) | Injection Vial | 32 |
| Sample ID | CBD-AOA-SW01-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:52:08 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

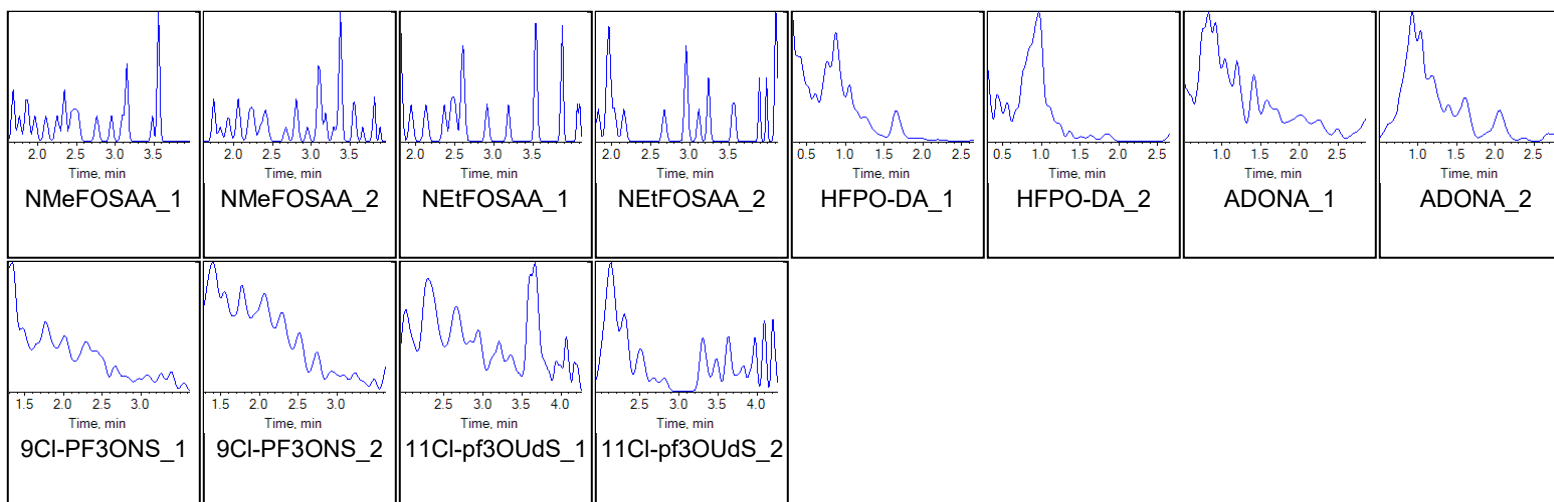
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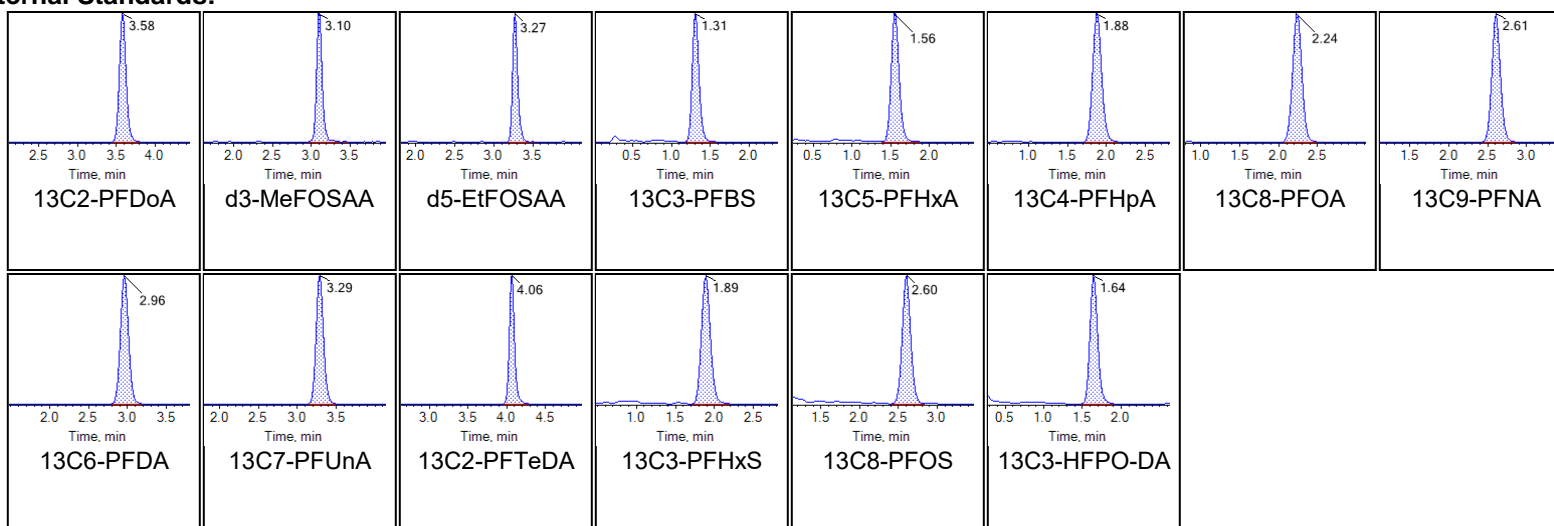




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Internal Standards:





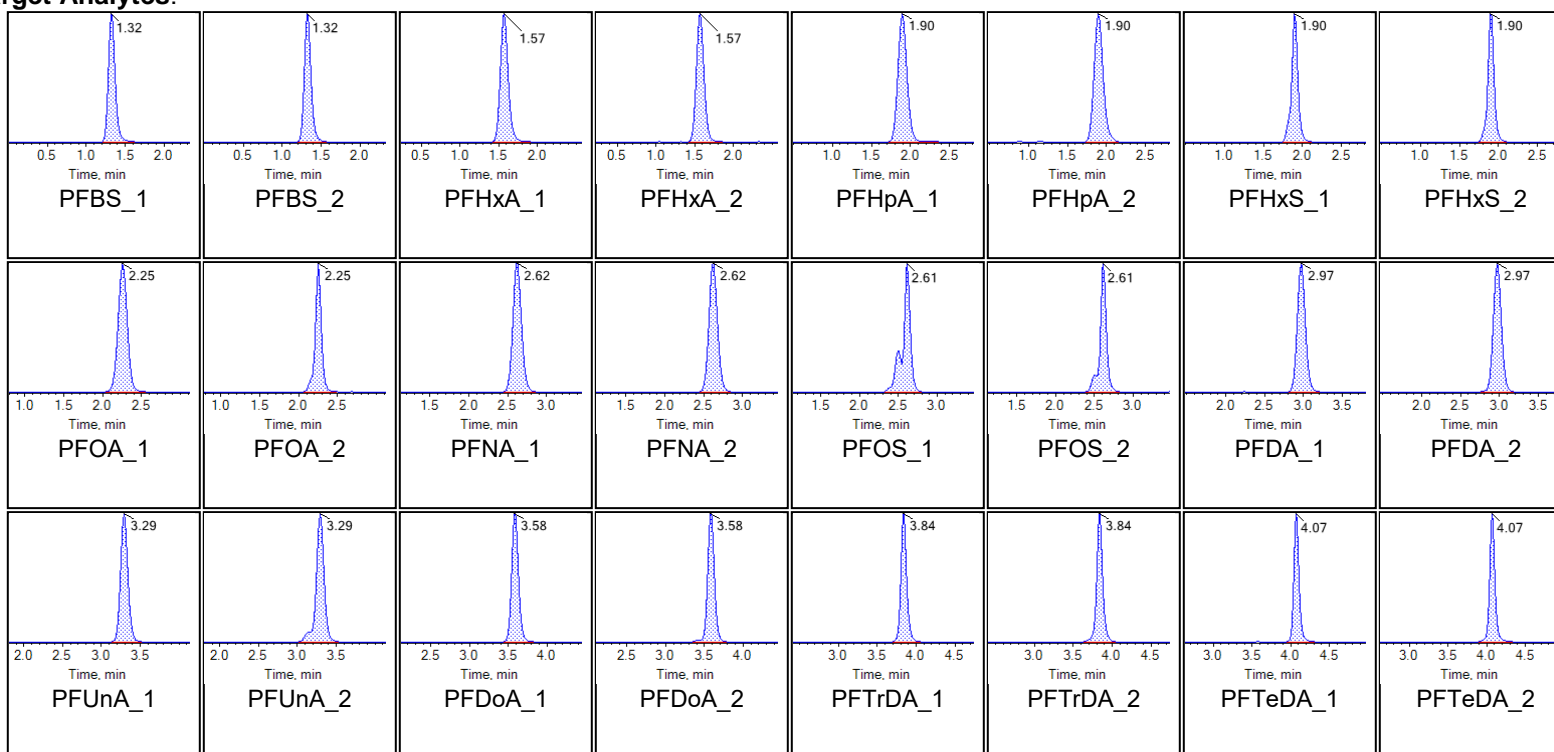
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Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 34 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:13:05 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

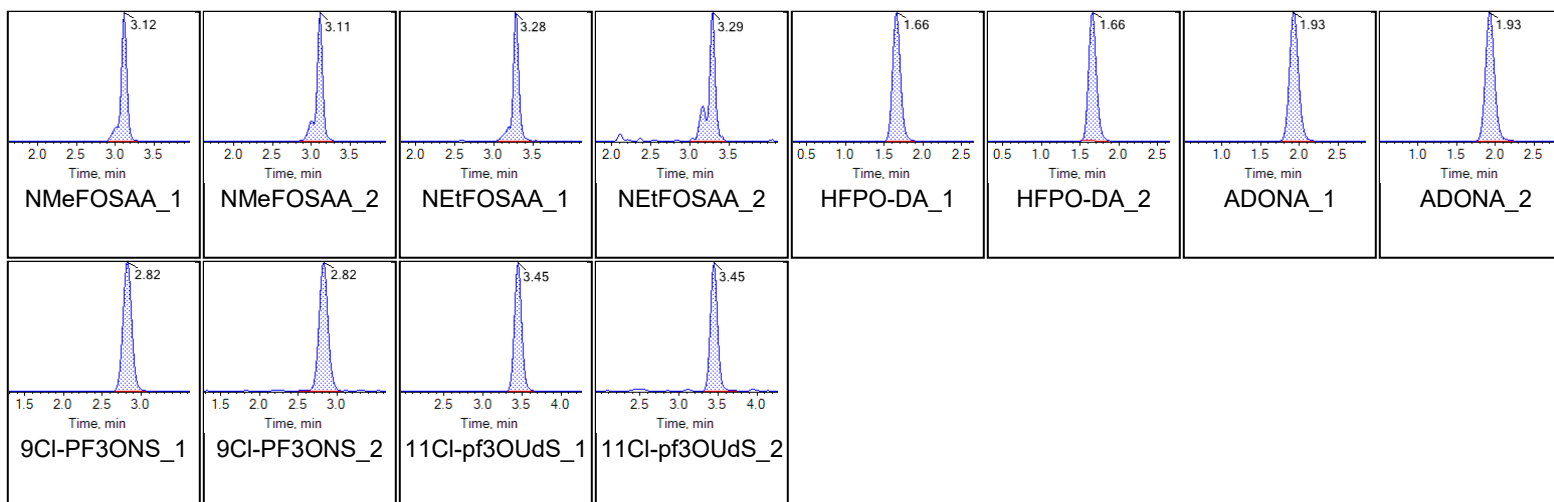
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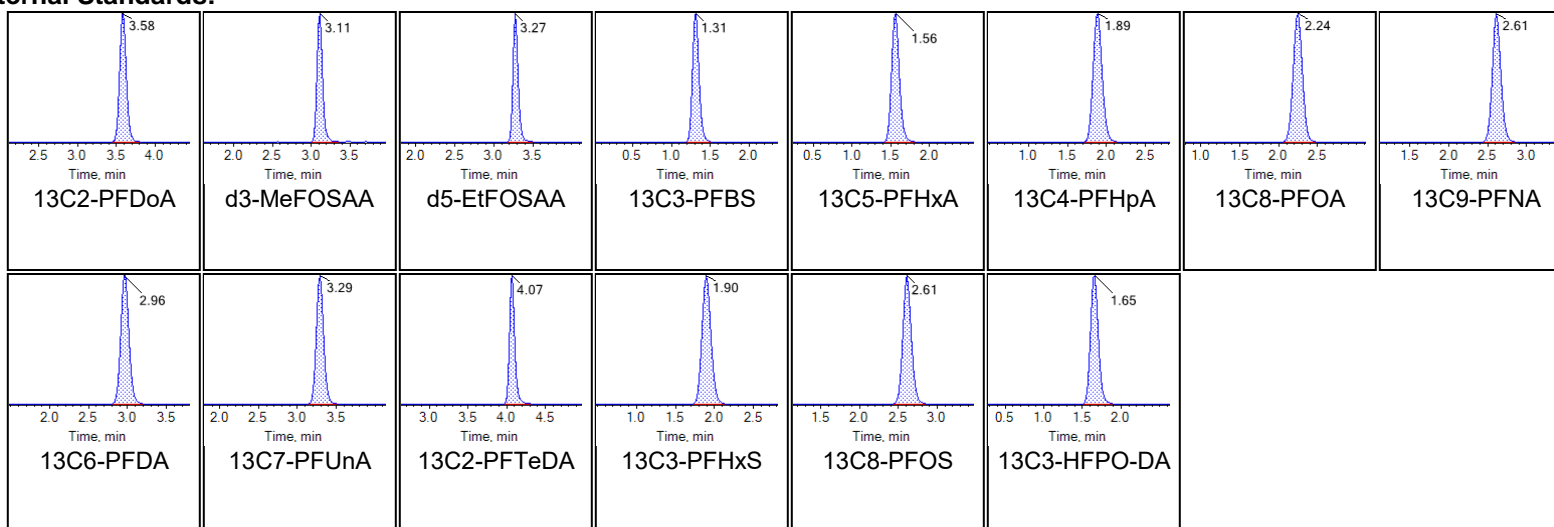




Chromatogram Report

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Internal Standards:





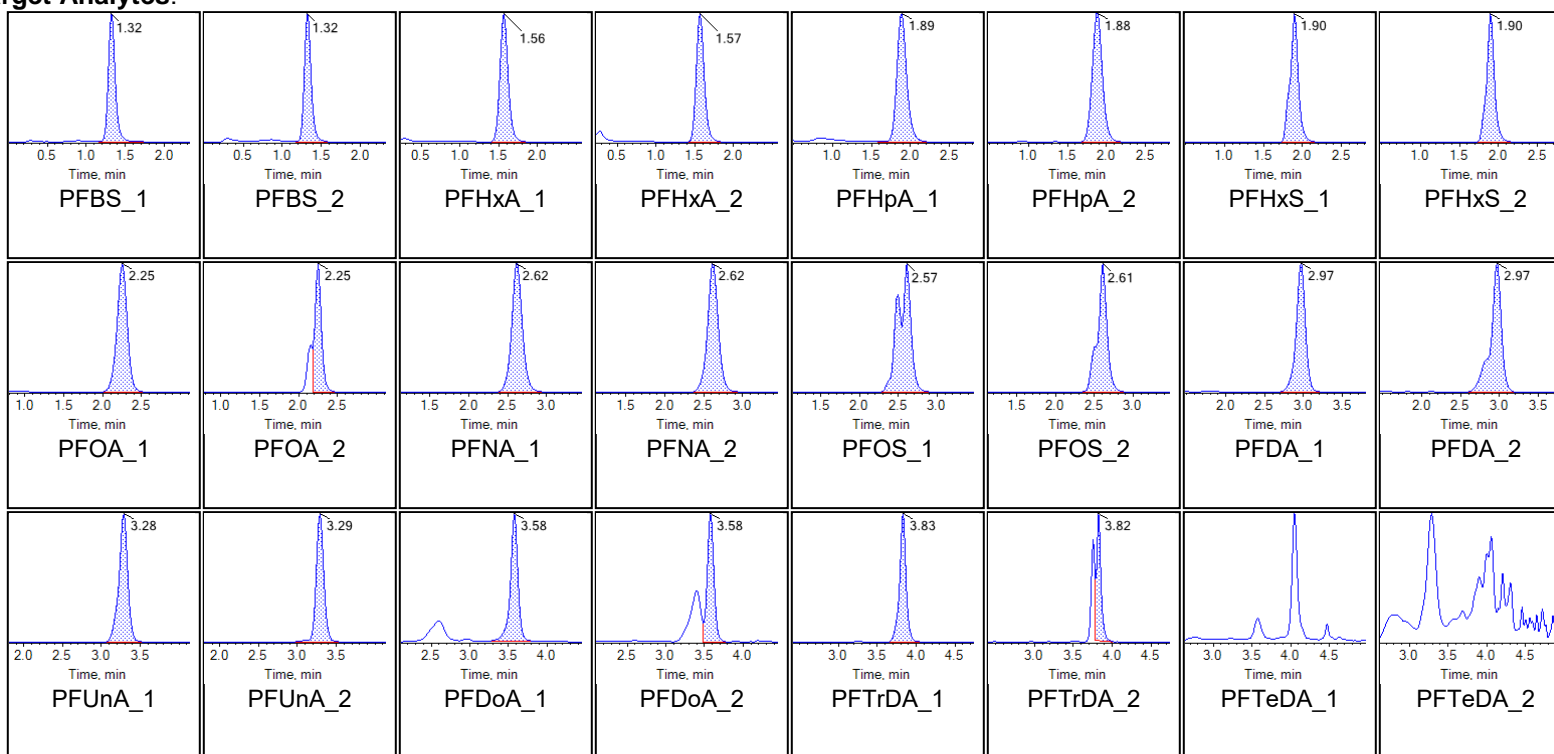
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Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1661-FS1(0) | Injection Vial | 35 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:23:35 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

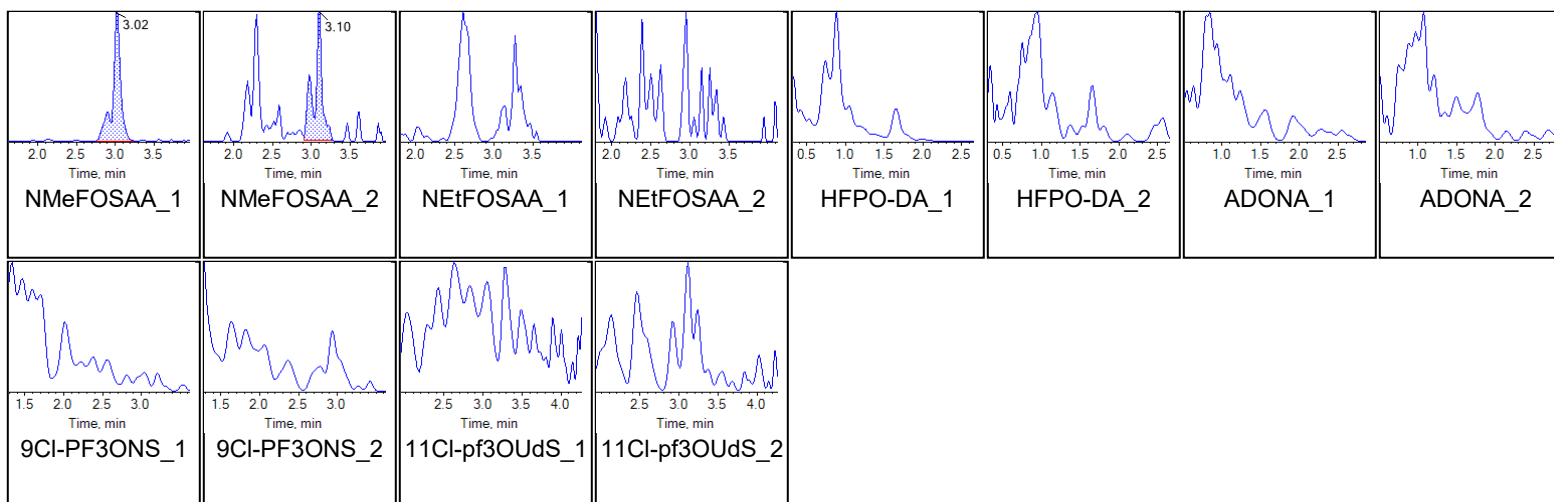
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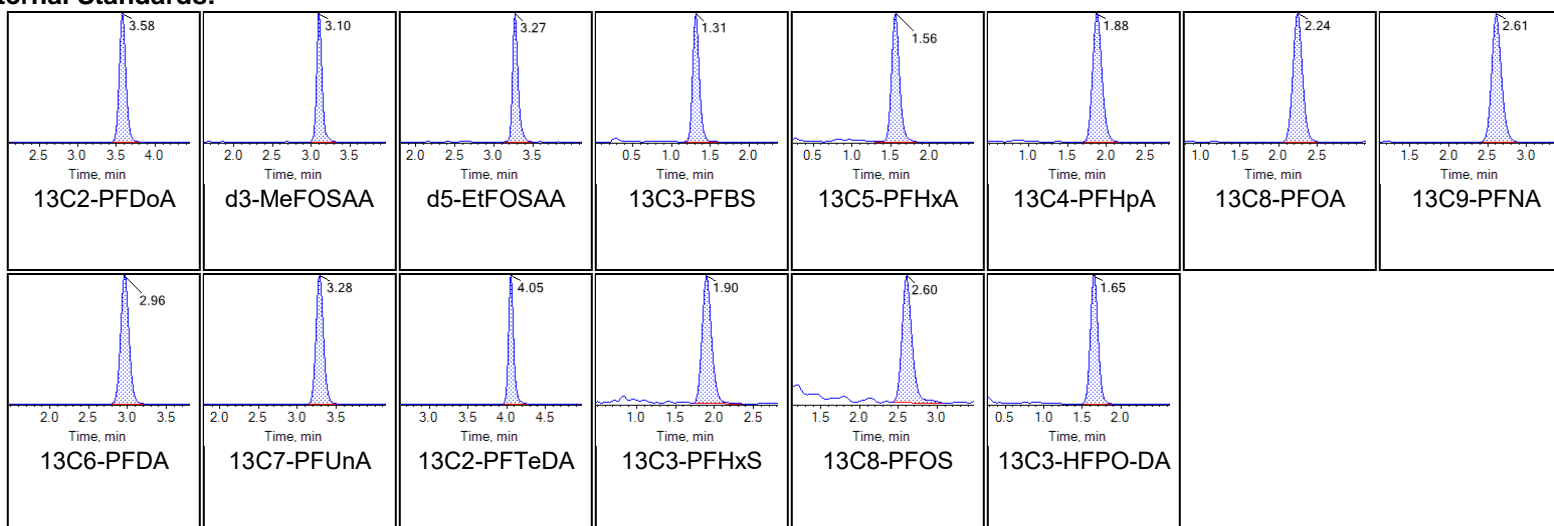




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Internal Standards:





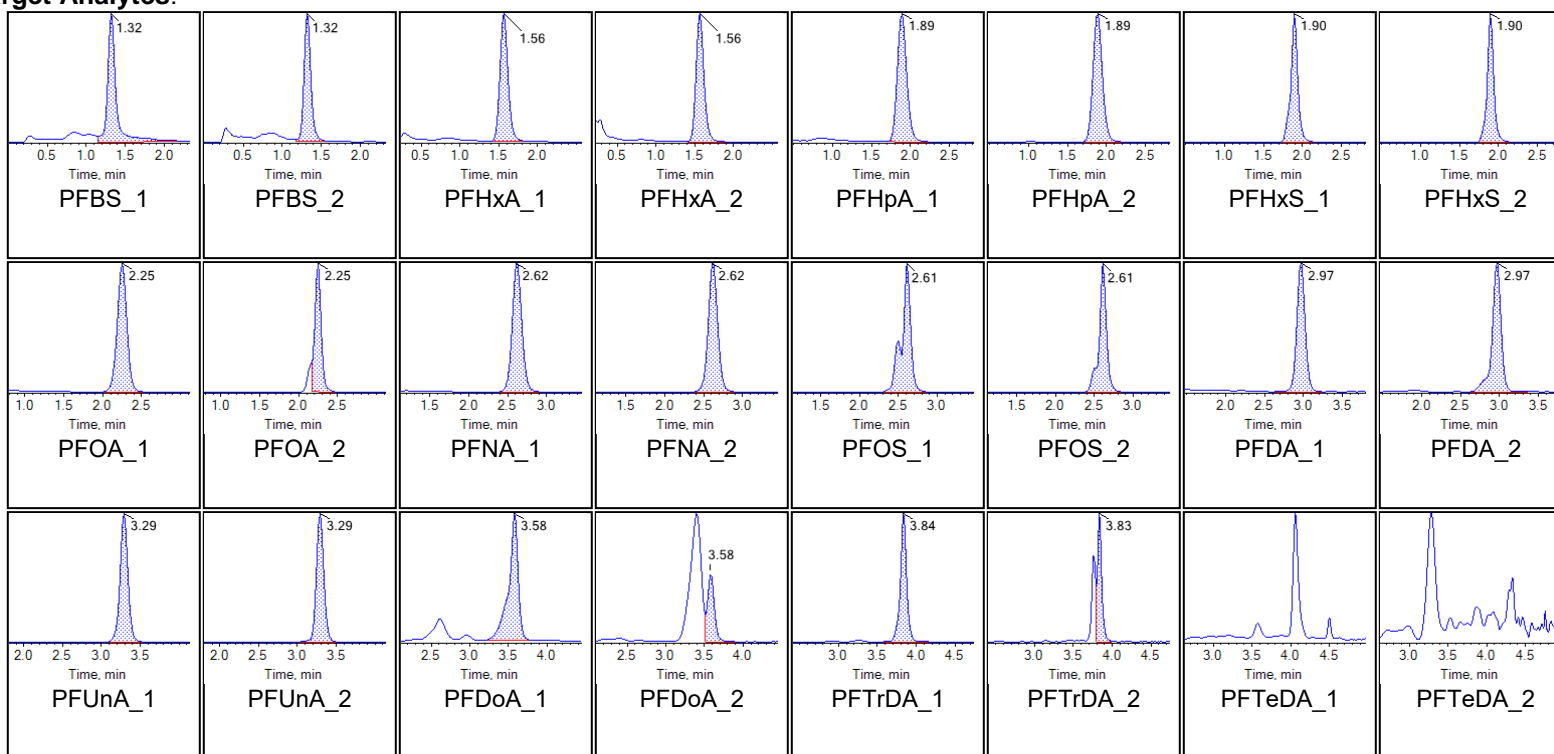
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1668-FS1(0) | Injection Vial | 36 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:34:03 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

Chromatograms

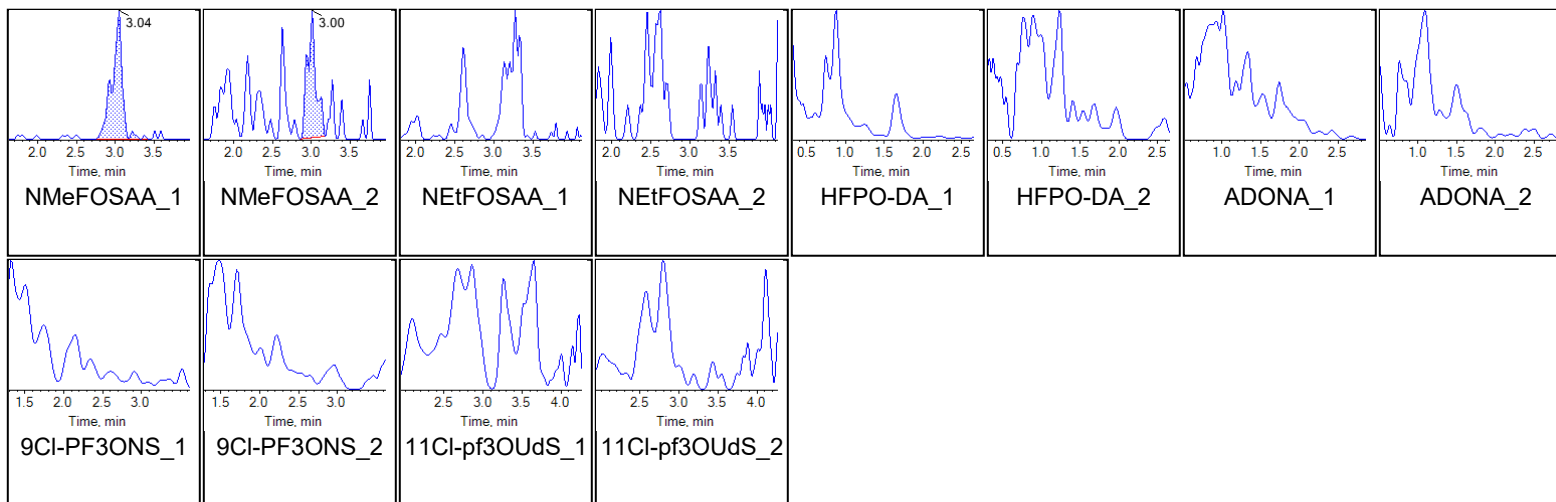
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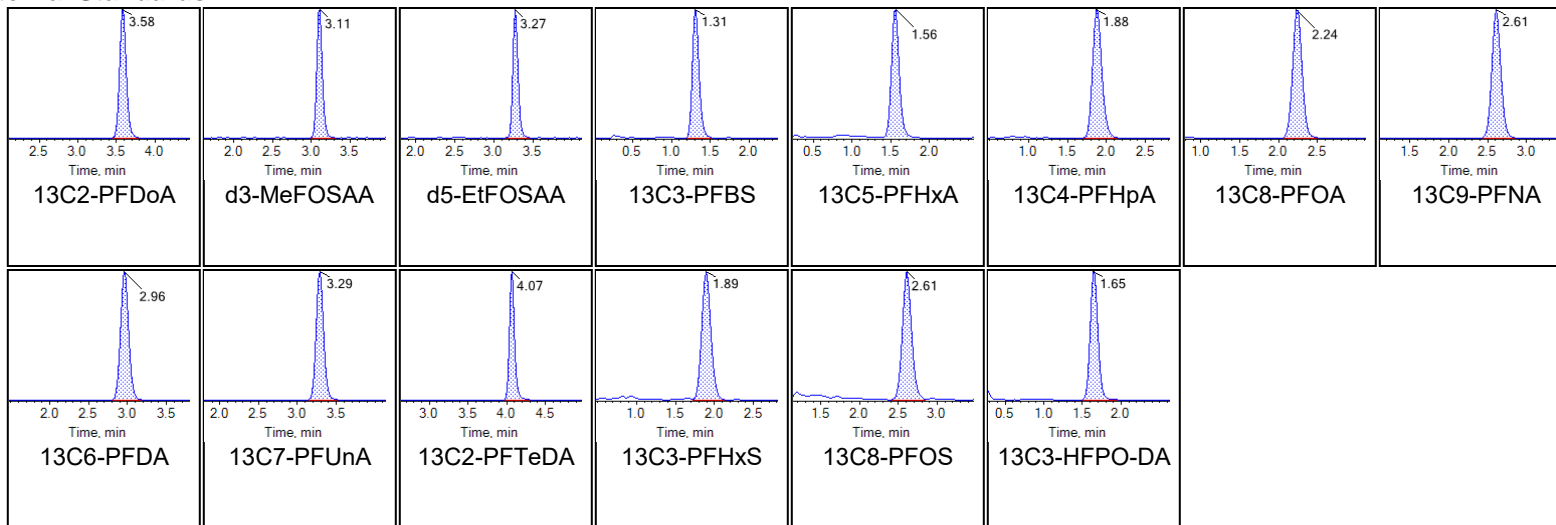


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Internal Standards:





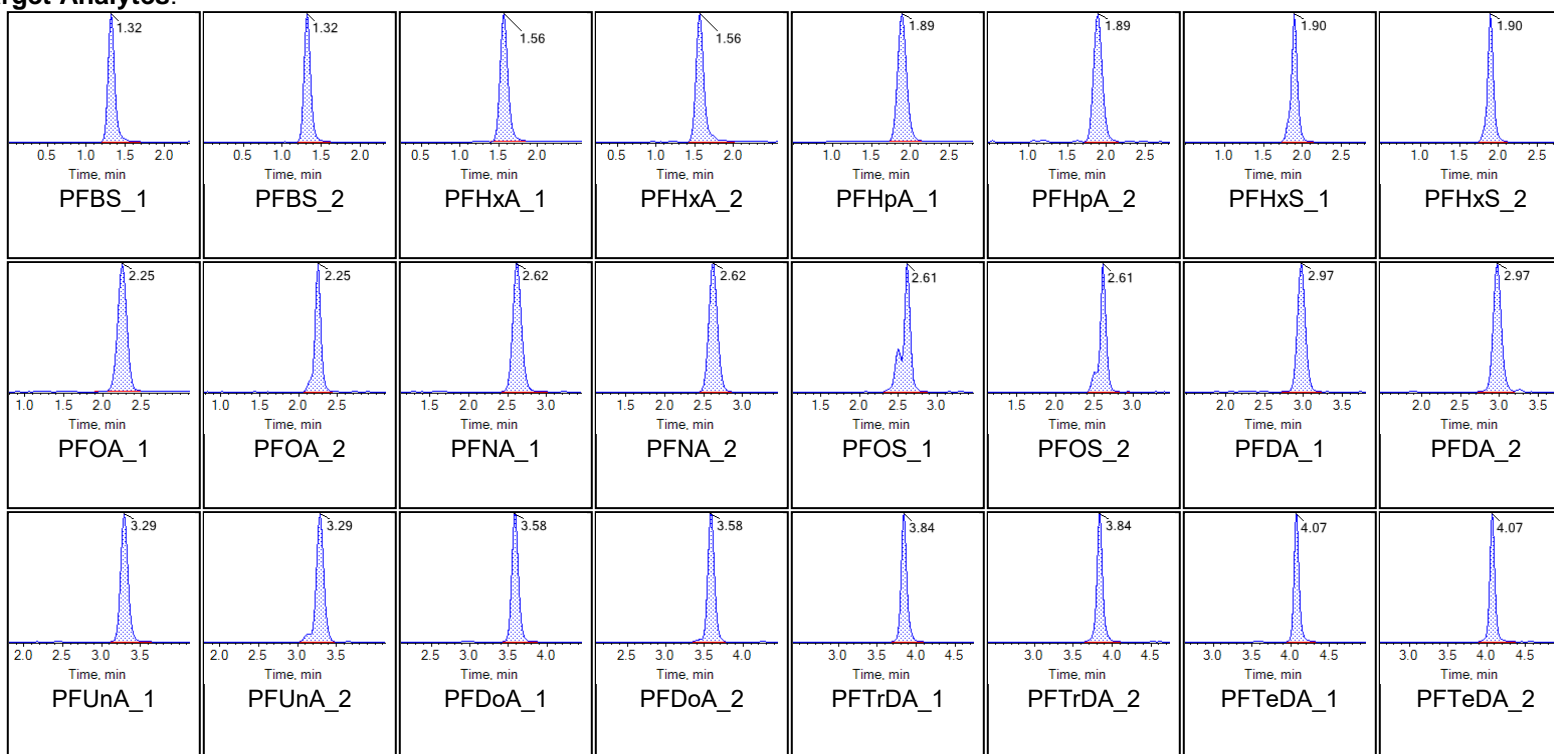
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Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 38 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:54:59 AM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

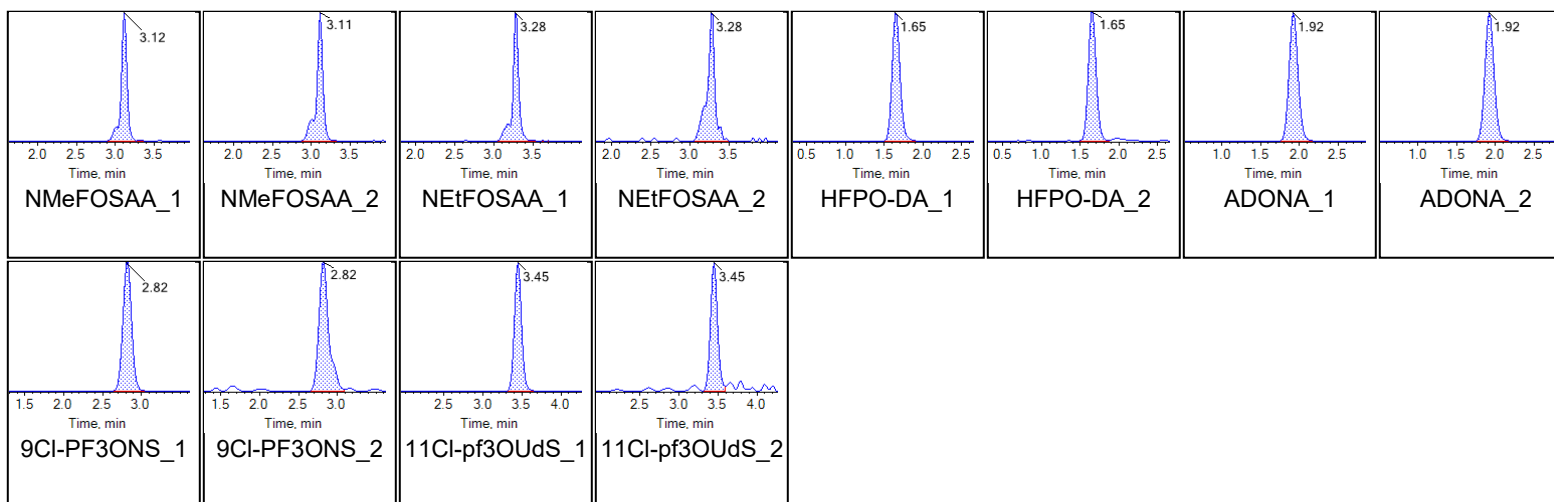
Chromatograms

Target Analytes:

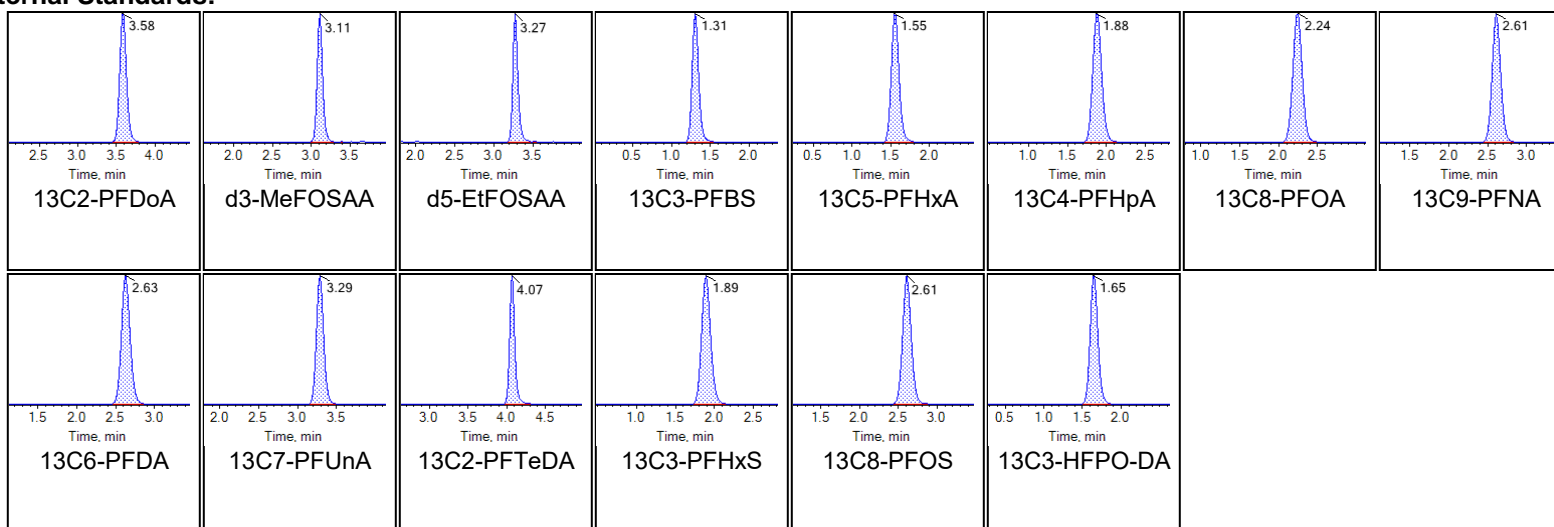




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Internal Standards:





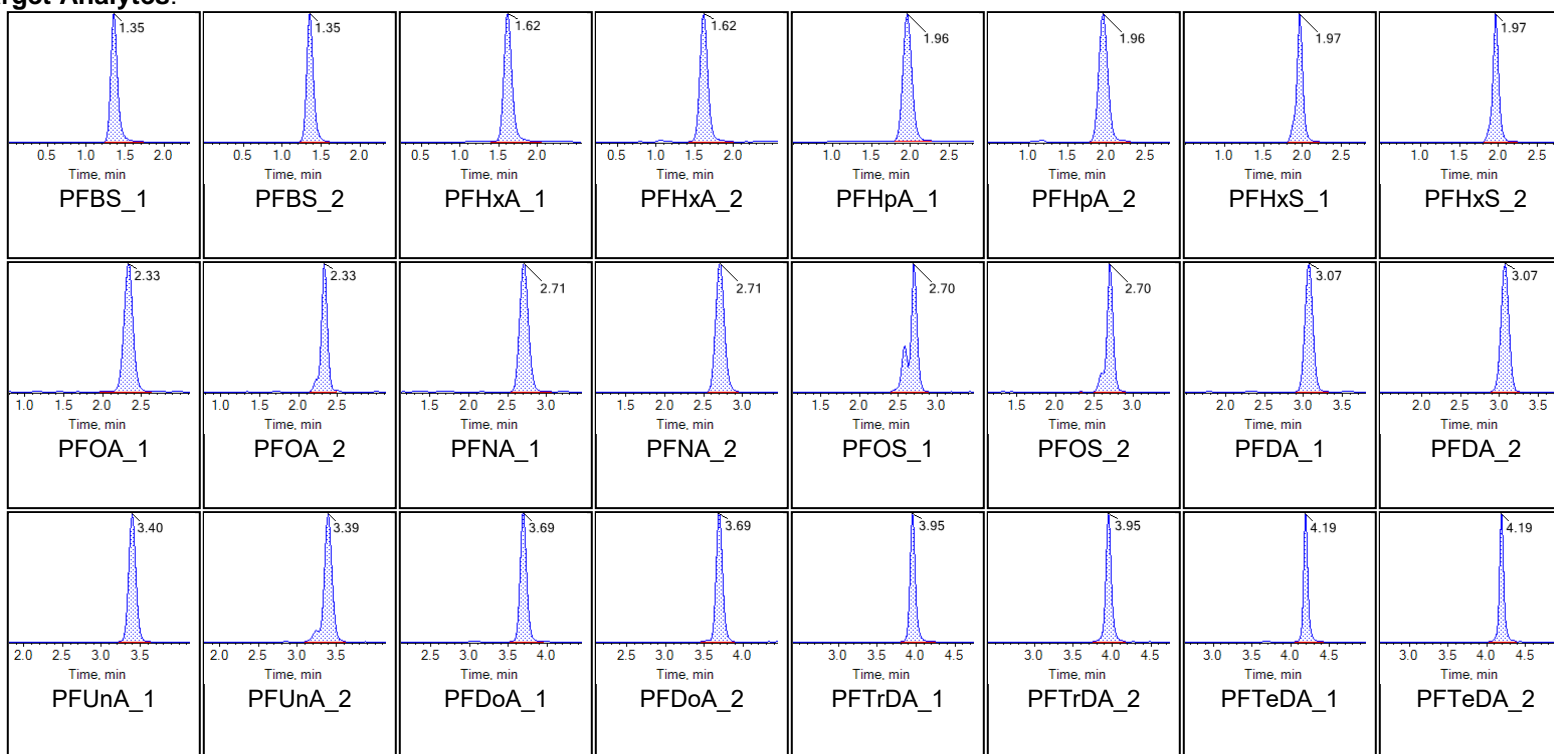
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 9:25:12 AM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

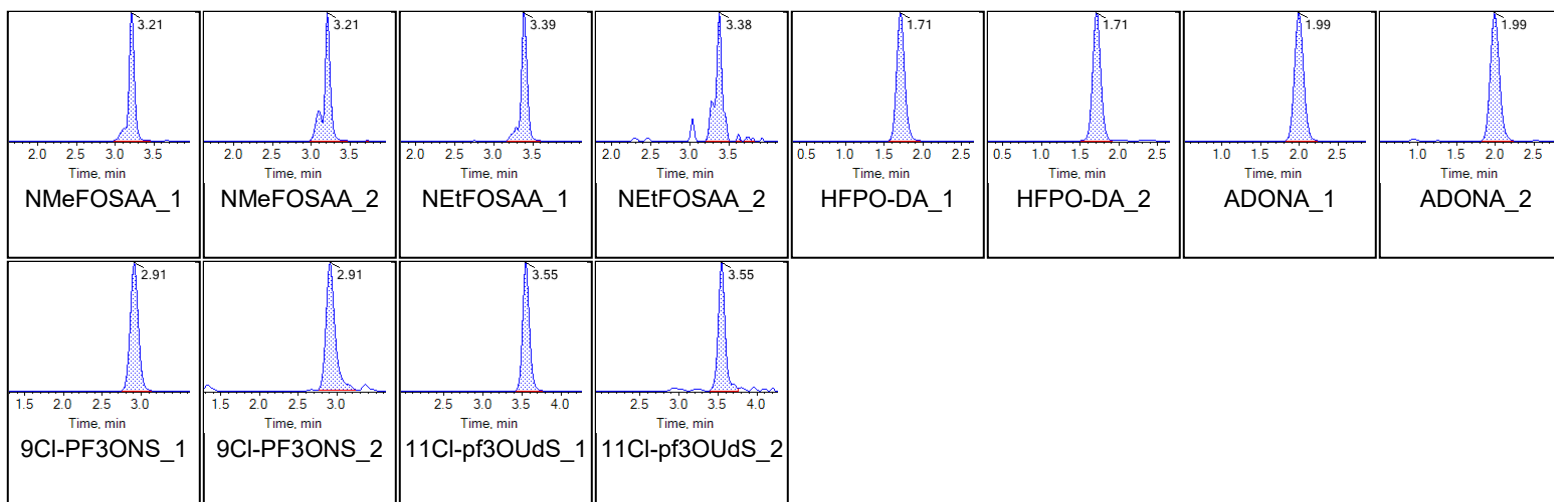
Chromatograms

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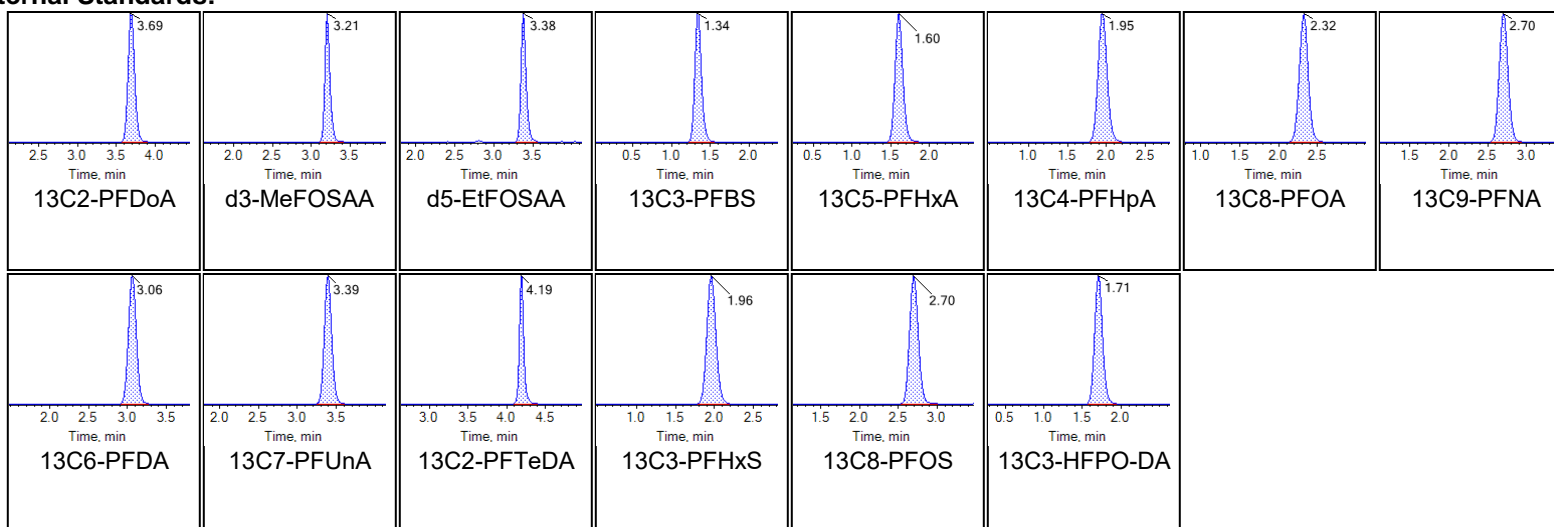




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Internal Standards:





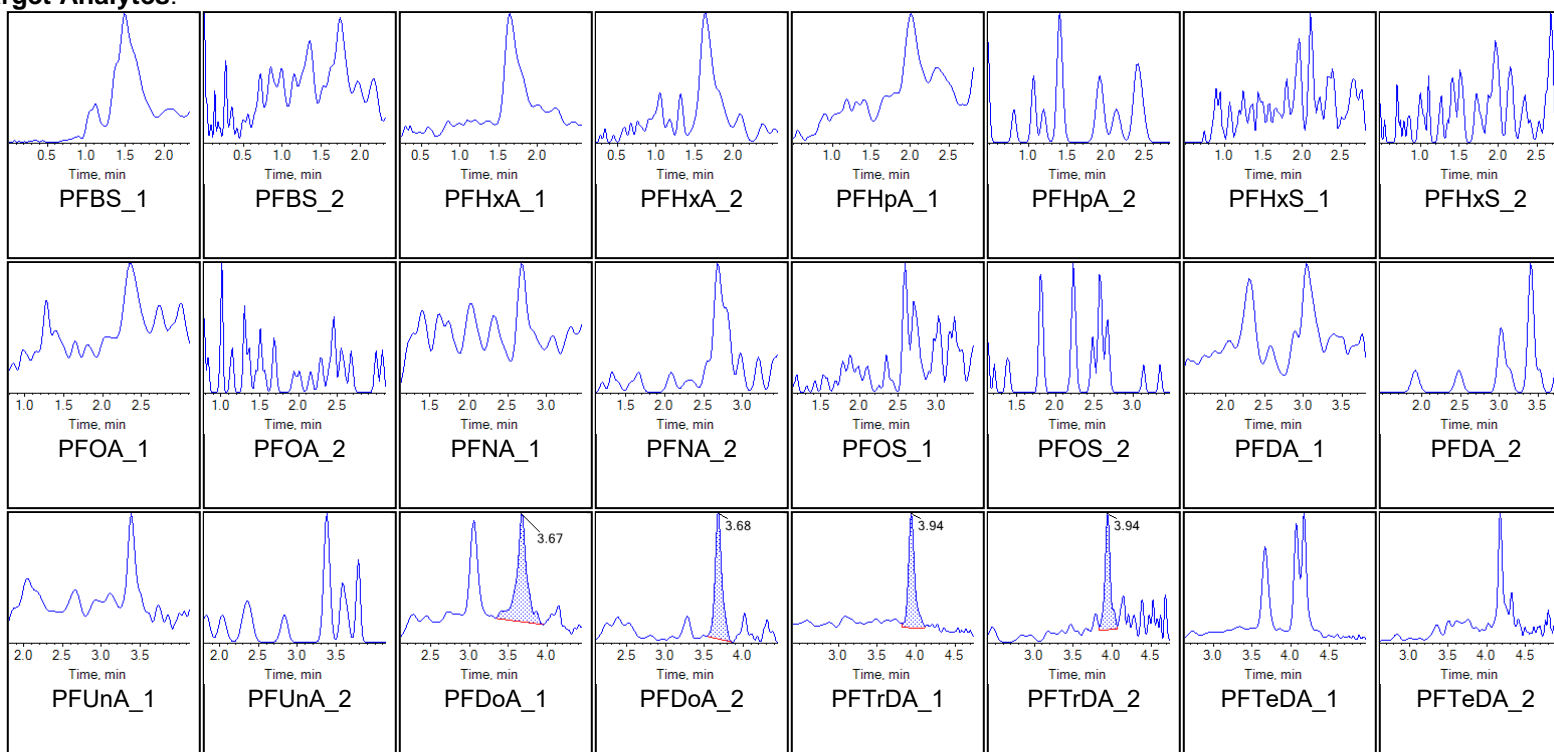
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Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD80 IB | Injection Vial | 4 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 9:46:09 AM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

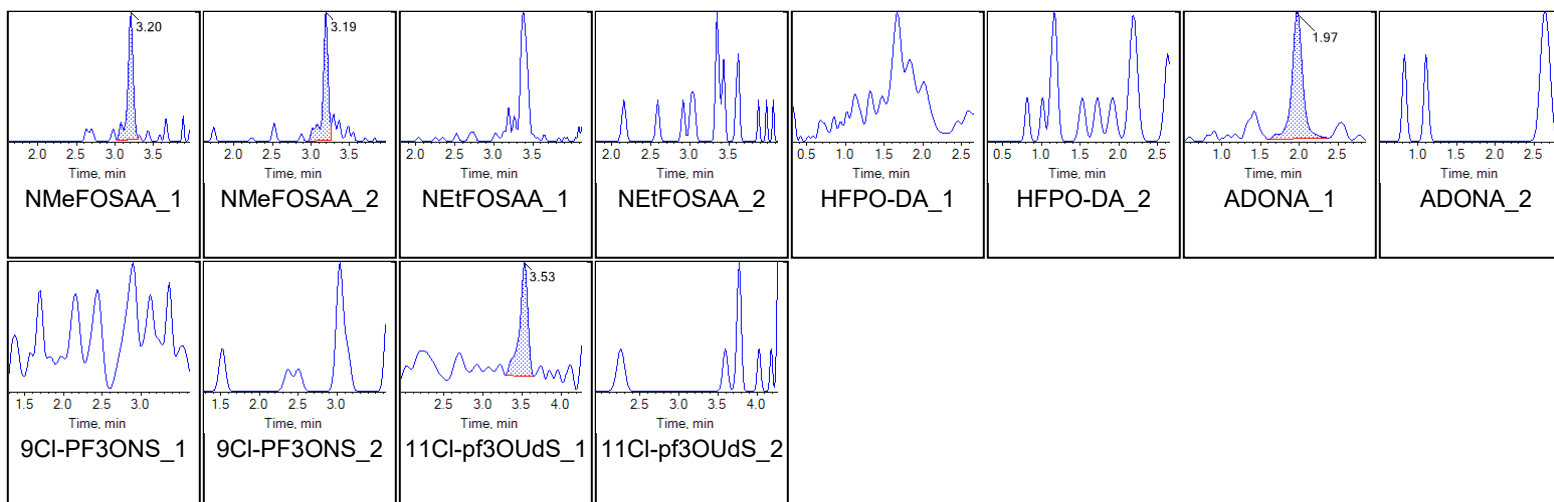
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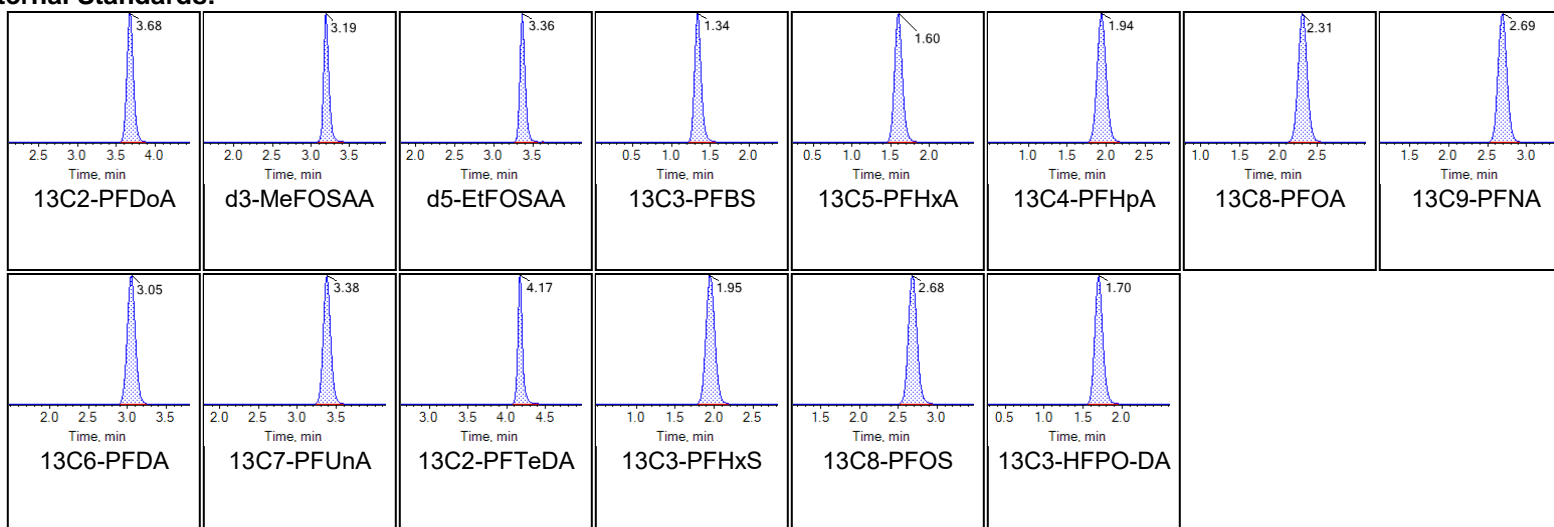




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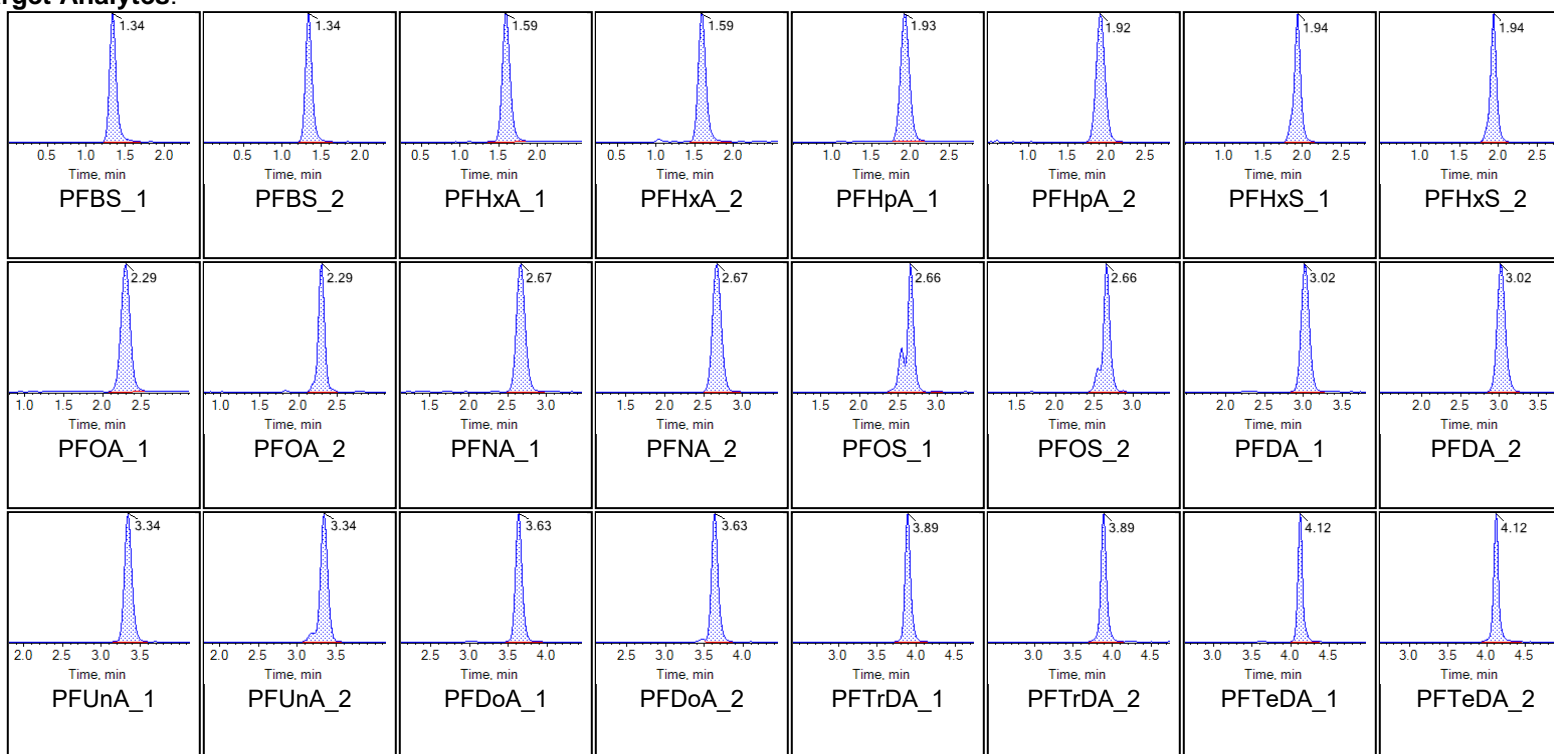
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Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 6 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:23:40 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

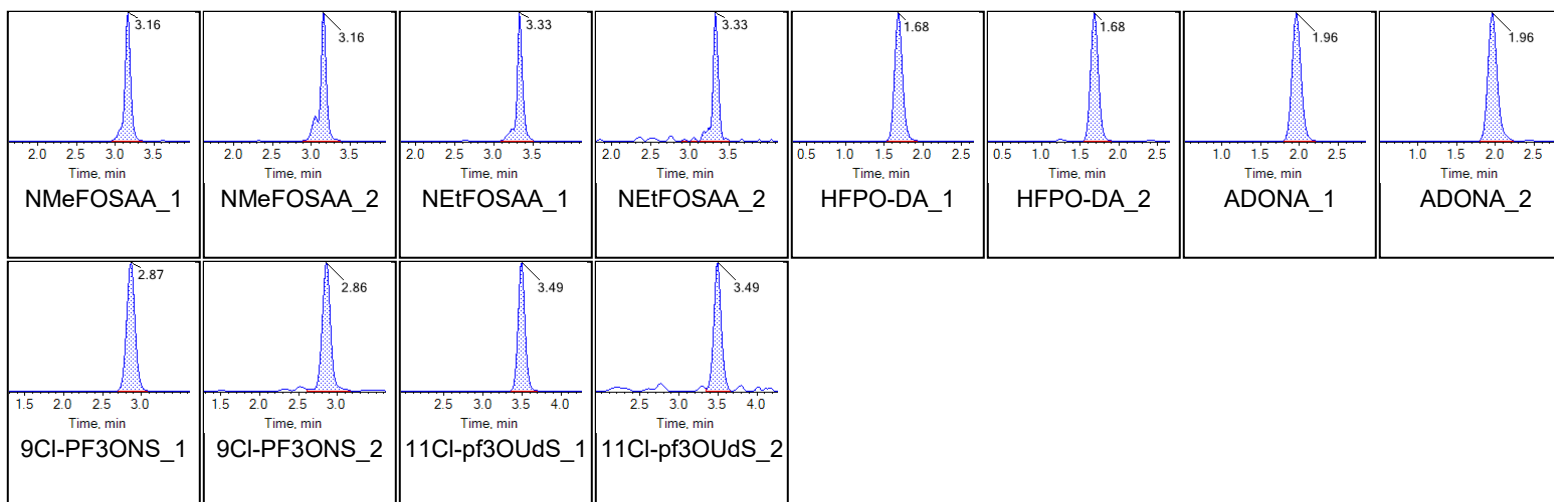
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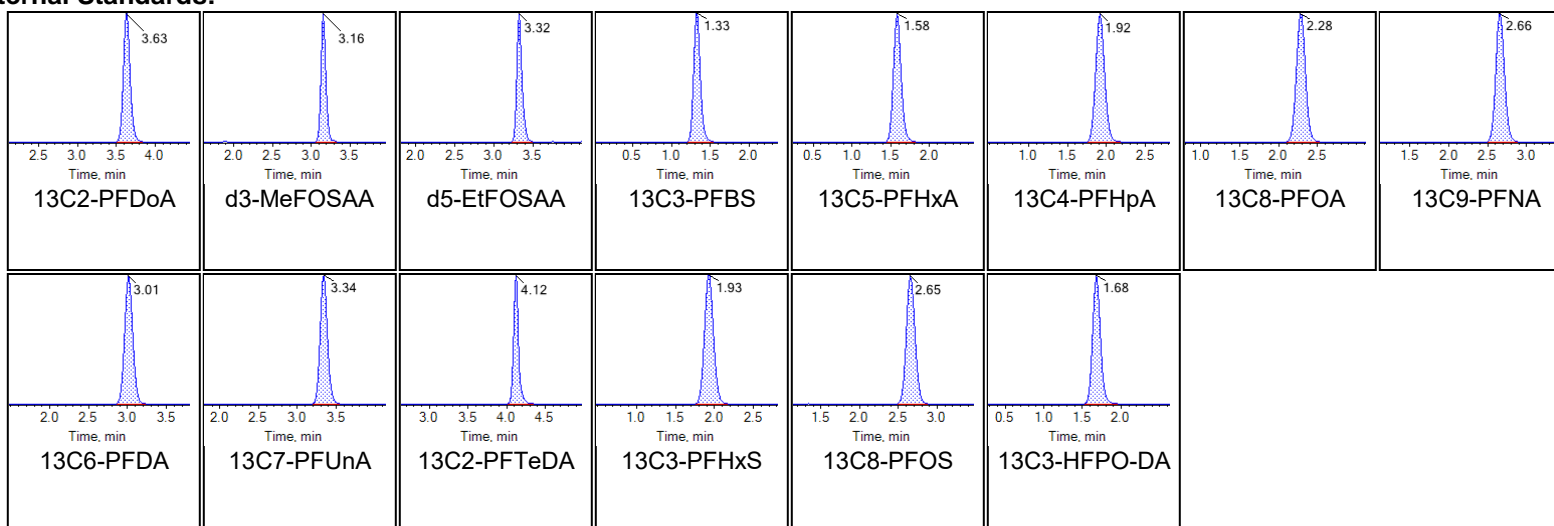




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Internal Standards:





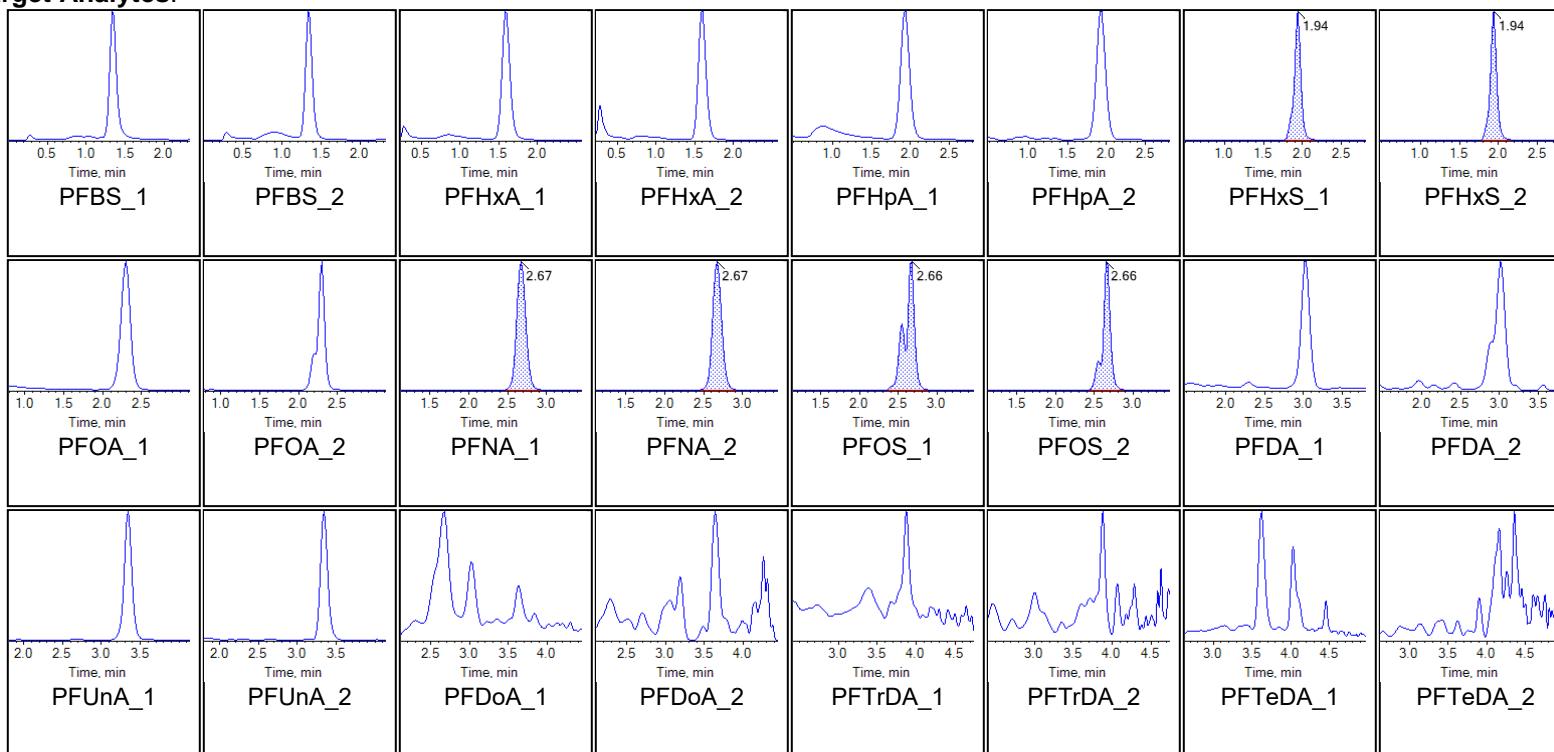
Chromatogram Report

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Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1644-FS1-D(3) | Injection Vial | 7 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:34:06 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

Chromatograms

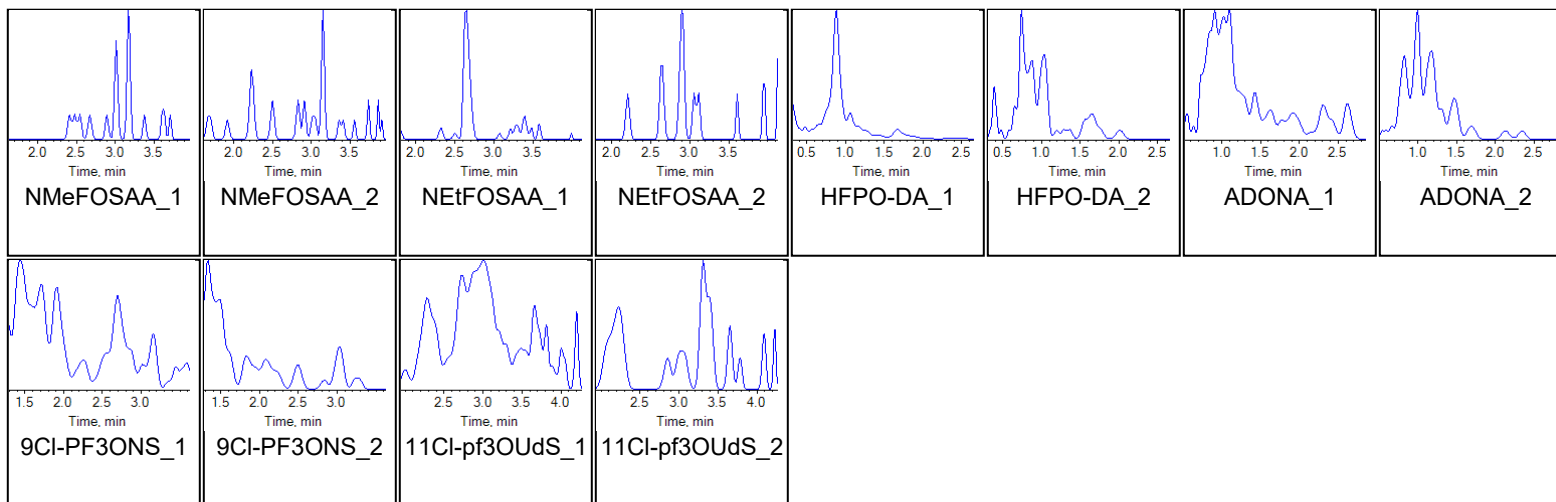
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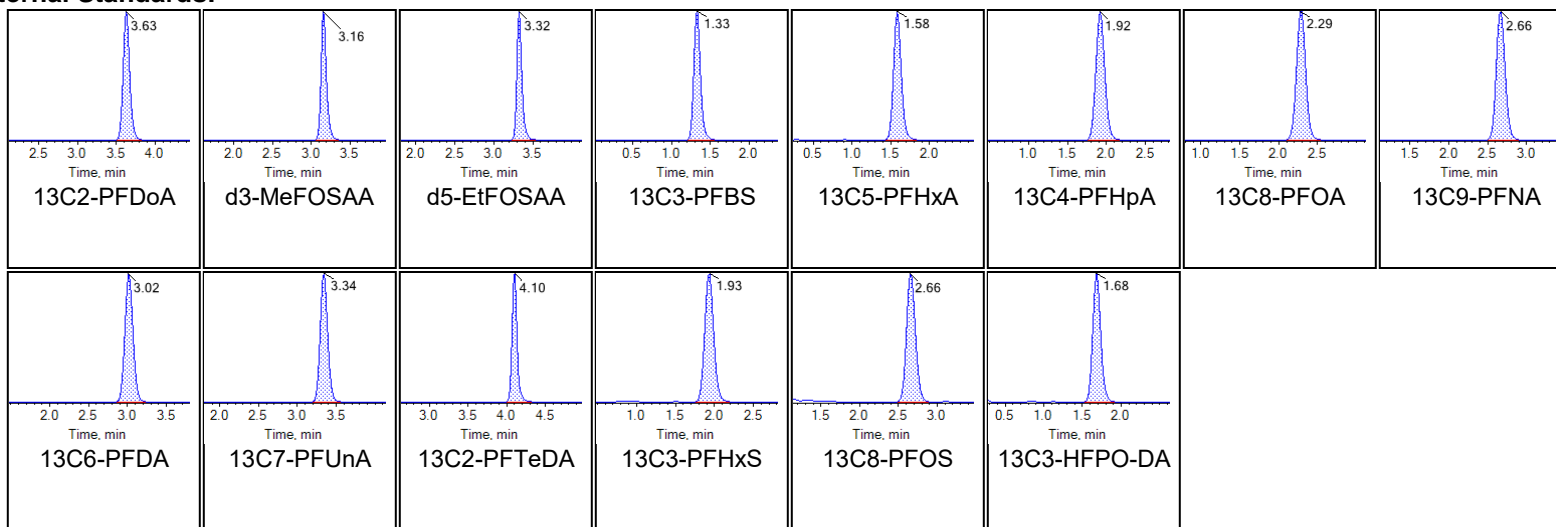


Chromatogram Report

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Internal Standards:





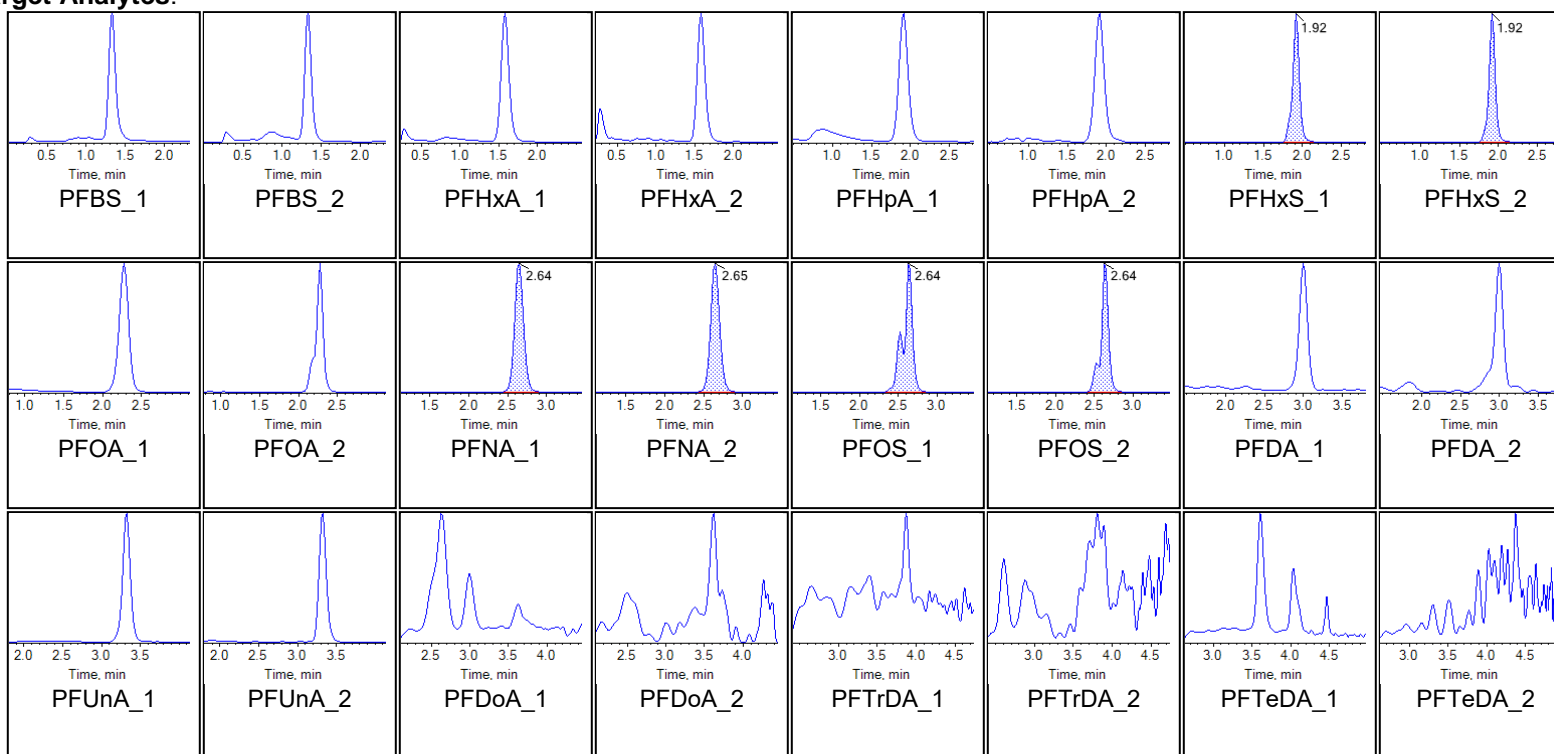
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1645-FS1-D(3) | Injection Vial | 9 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:55:01 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

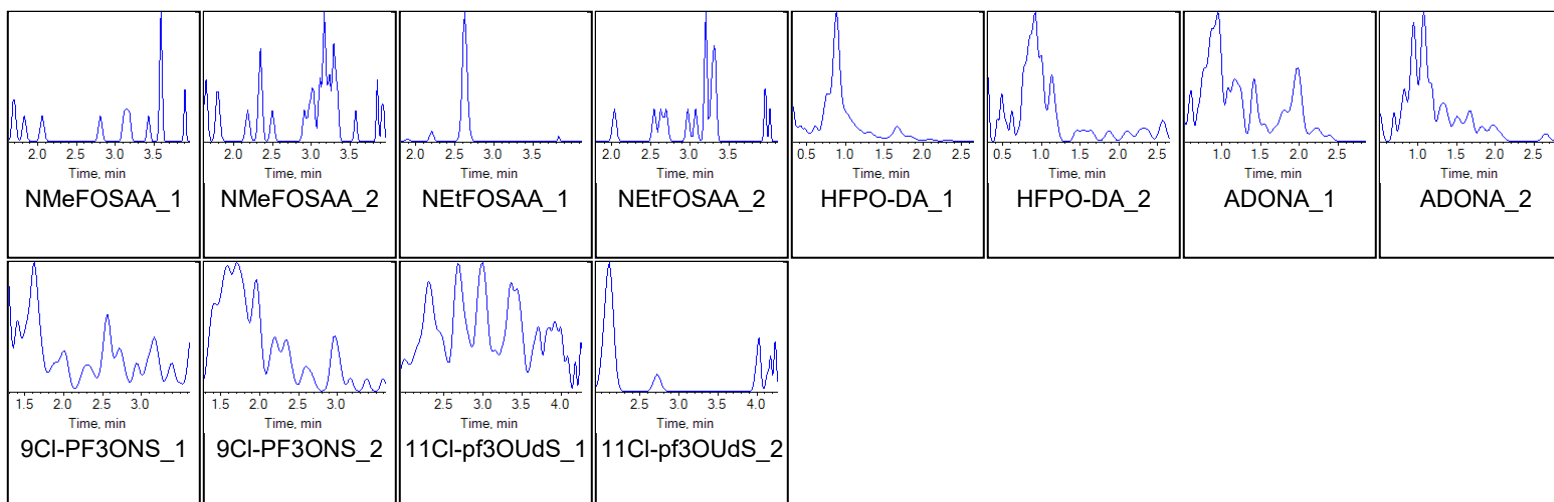
Chromatograms

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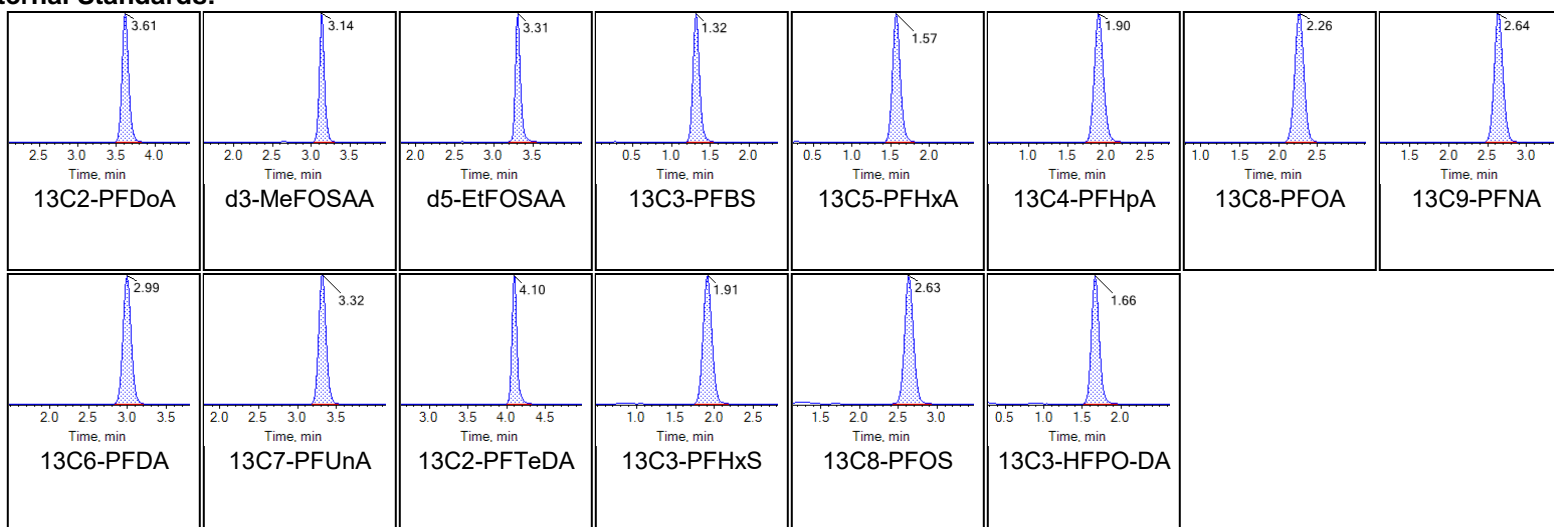




Chromatogram Report

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Internal Standards:





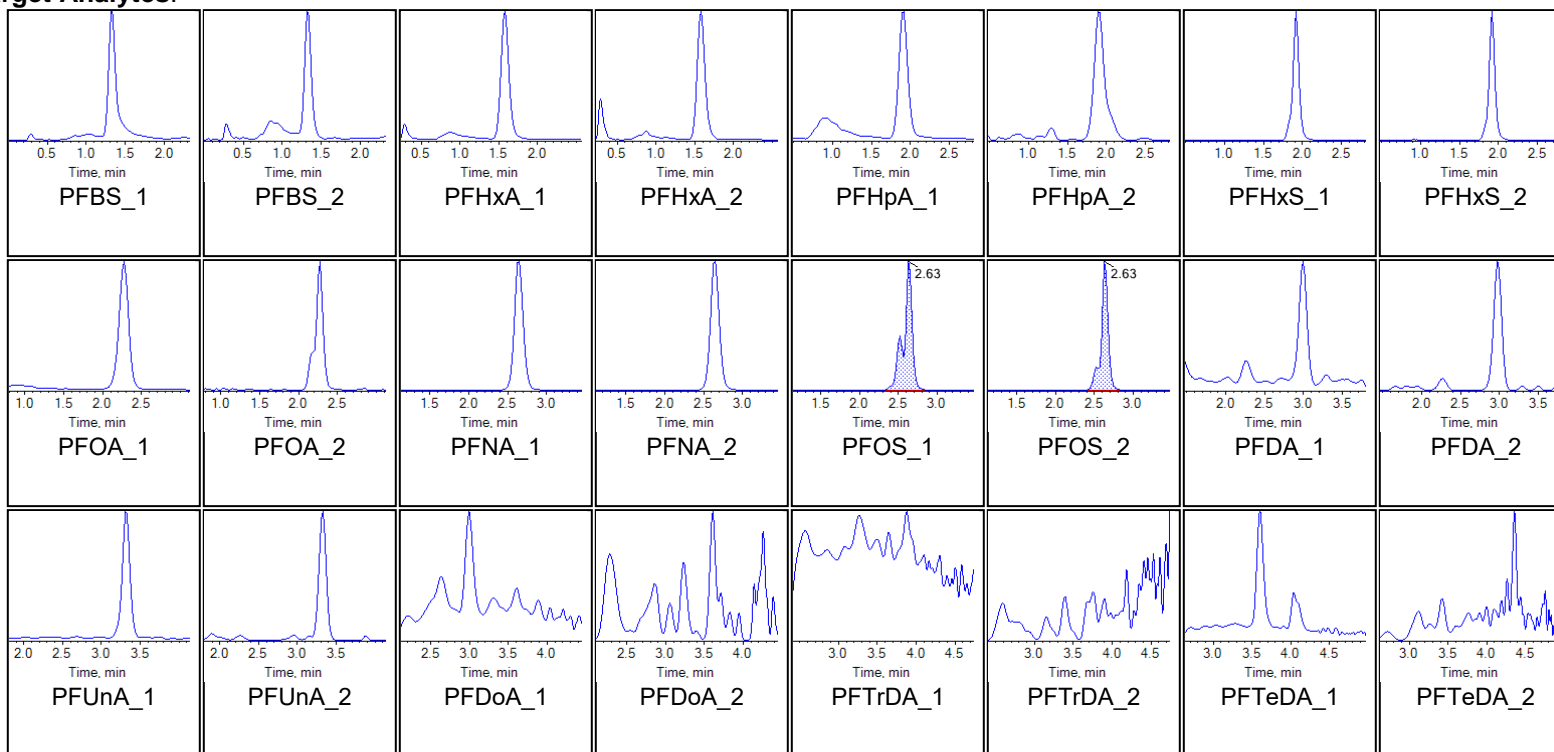
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1645-FS1-D(7) | Injection Vial | 11 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:16:19 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

Chromatograms

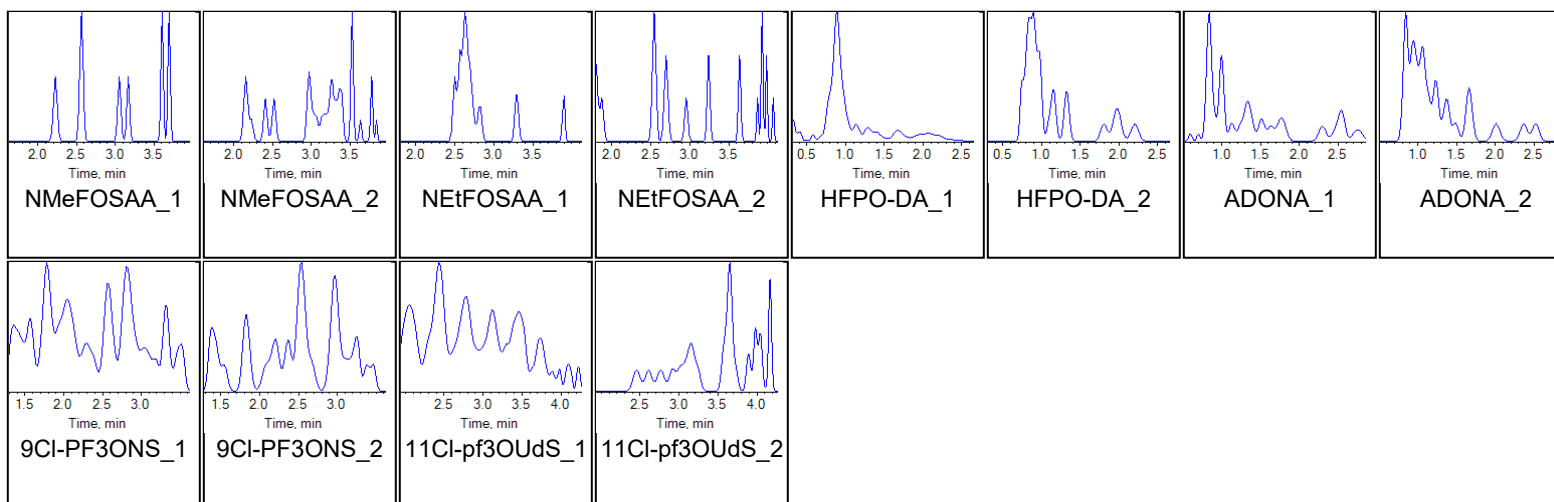
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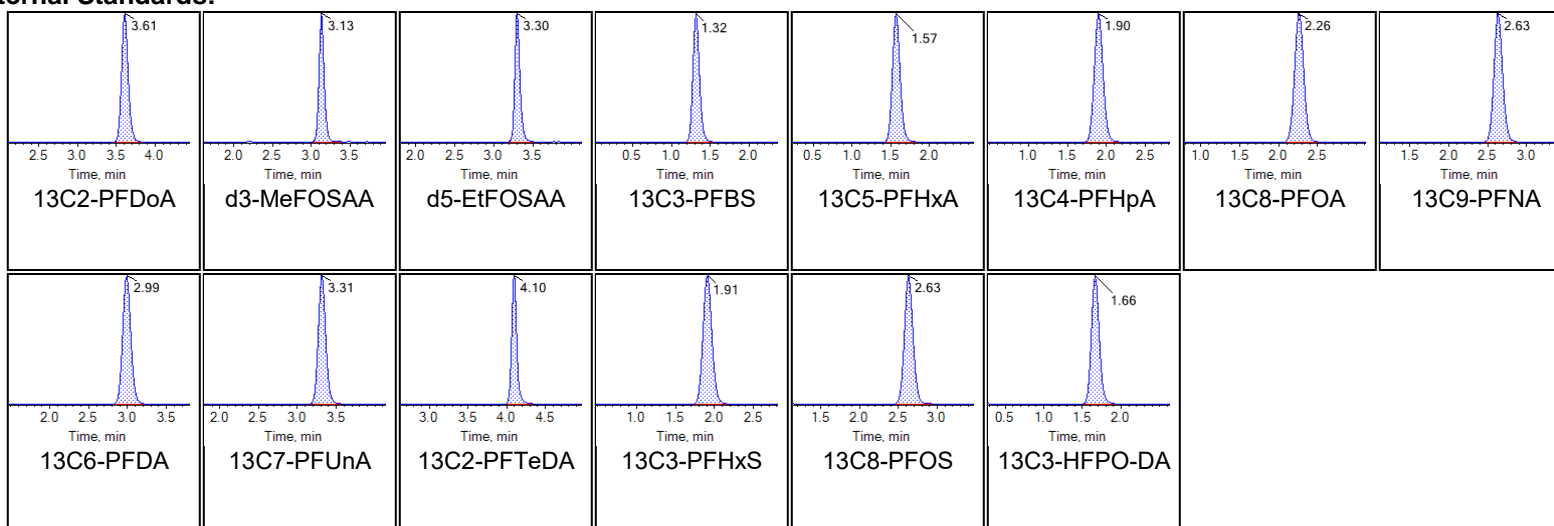


Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM



Internal Standards:





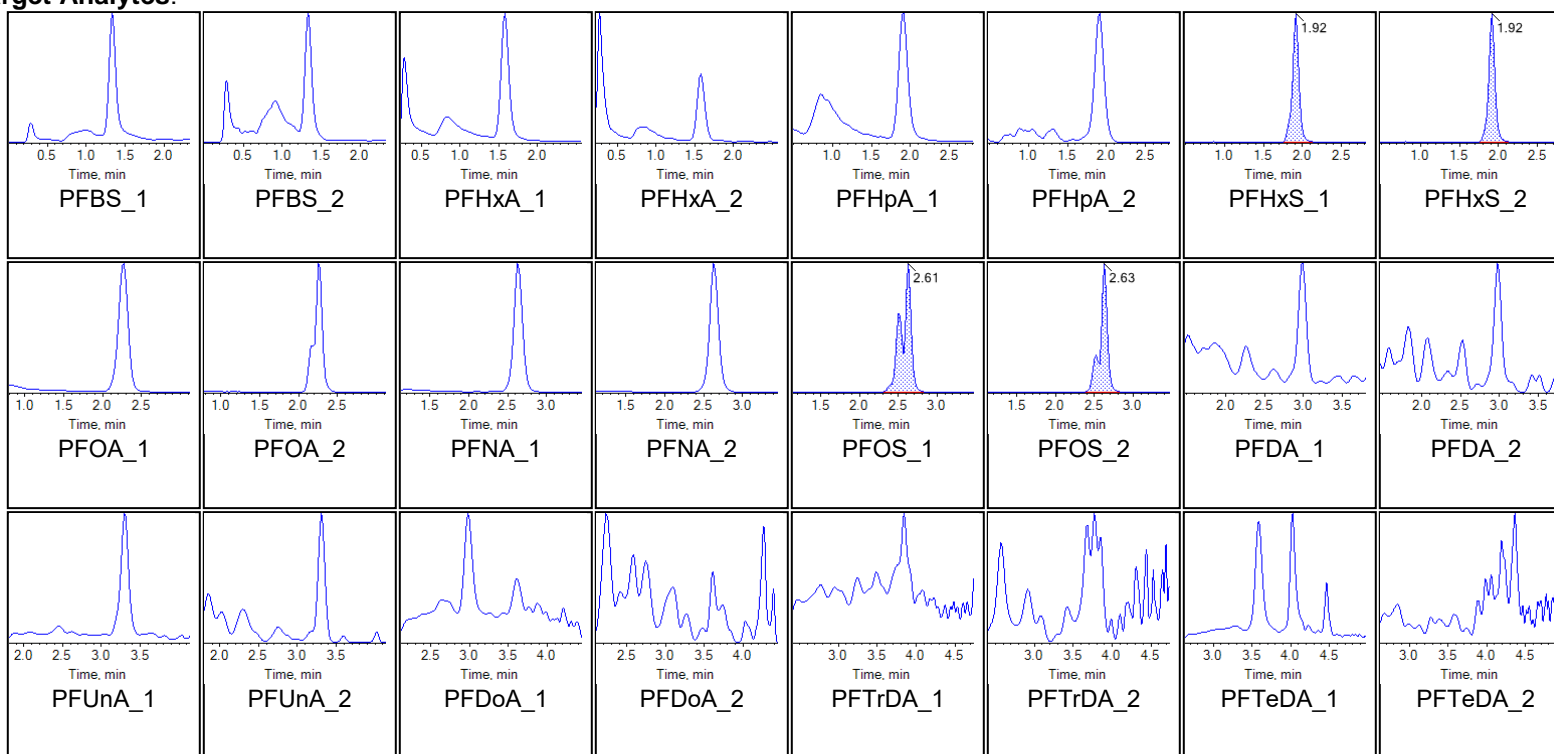
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1646-FS1-D(3) | Injection Vial | 12 |
| Sample ID | CBD-AOA-SW03-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:26:46 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

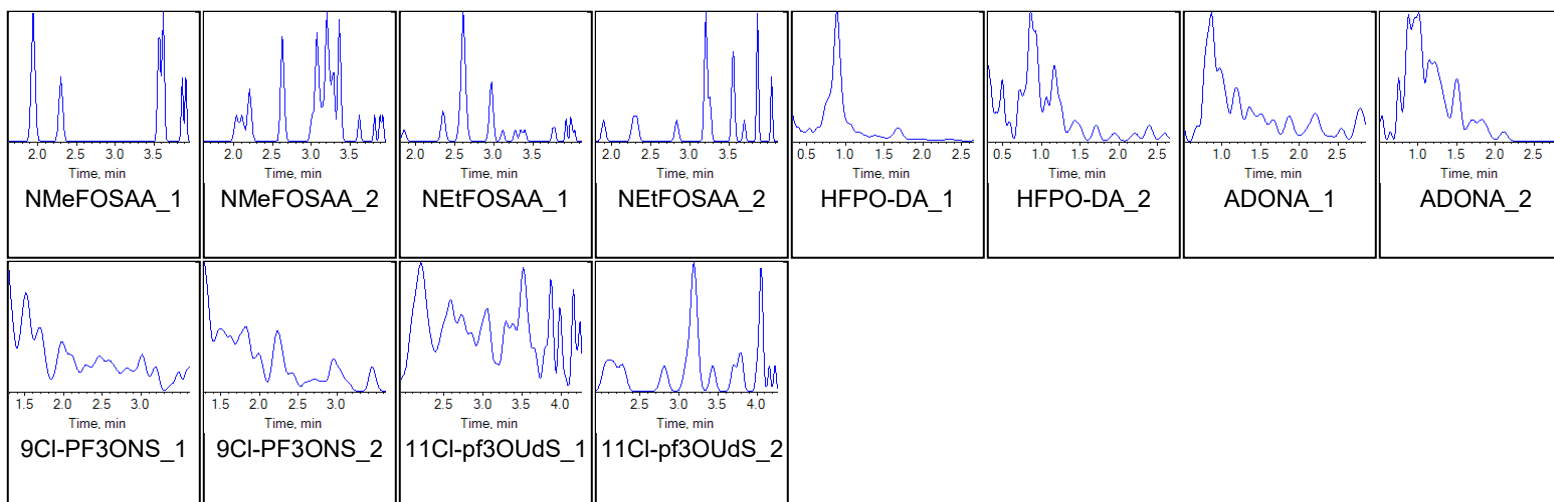
Chromatograms

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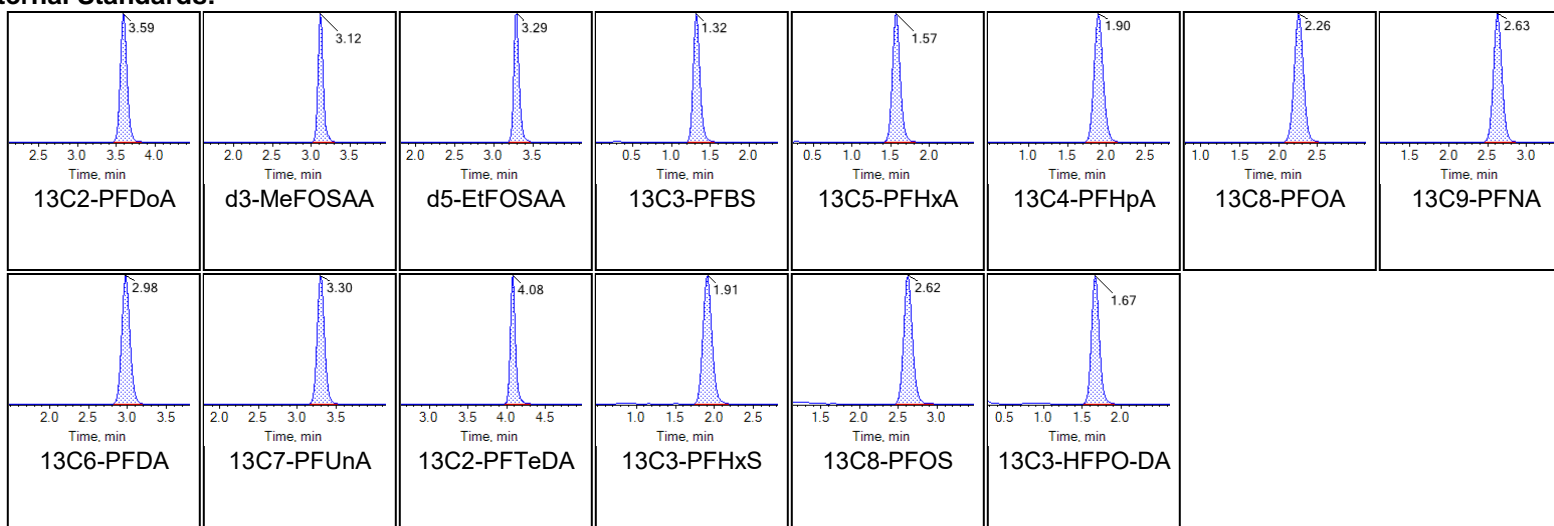




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Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

Internal Standards:





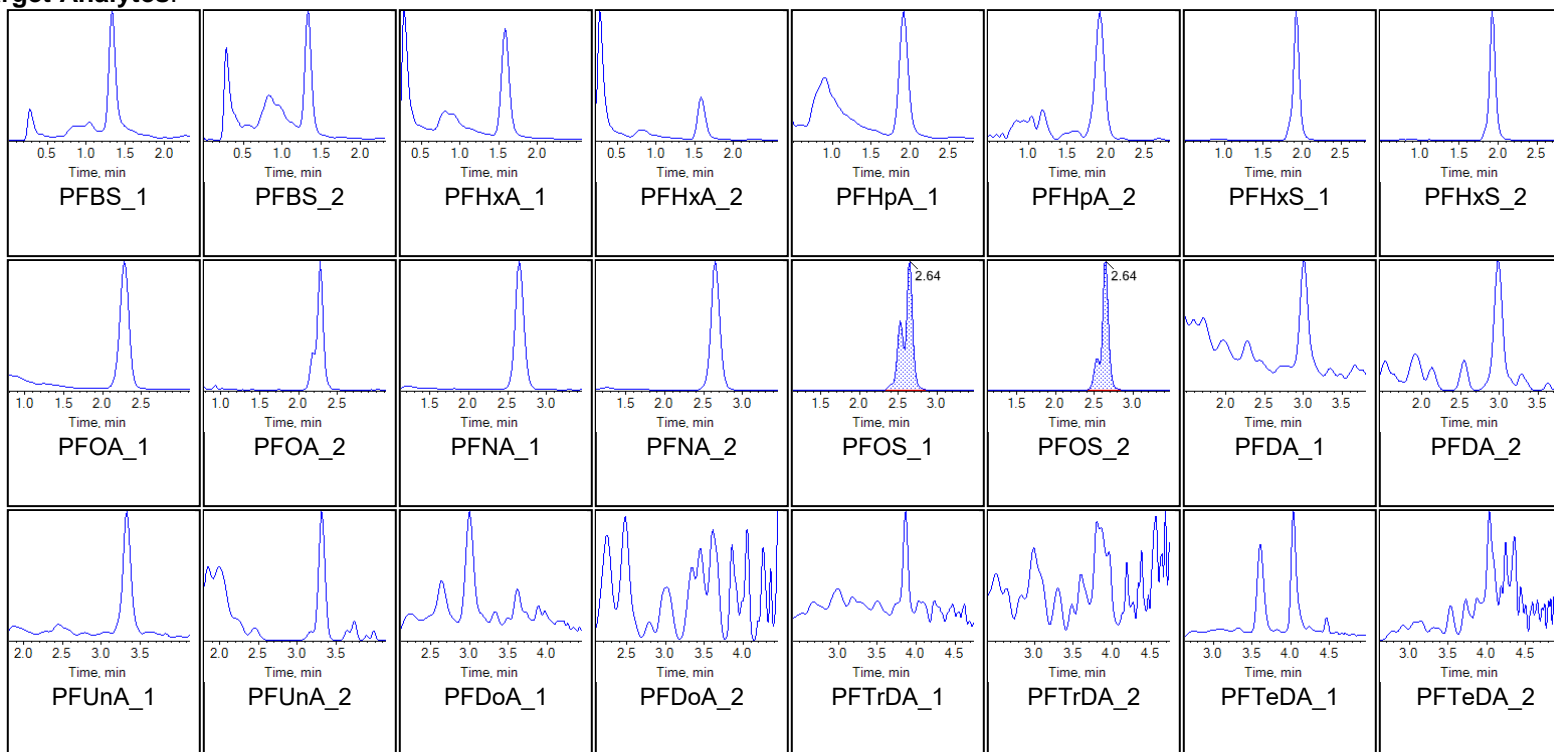
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1647-FS1-D(3) | Injection Vial | 13 |
| Sample ID | CBD-AOA-SW04-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:37:13 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

Chromatograms

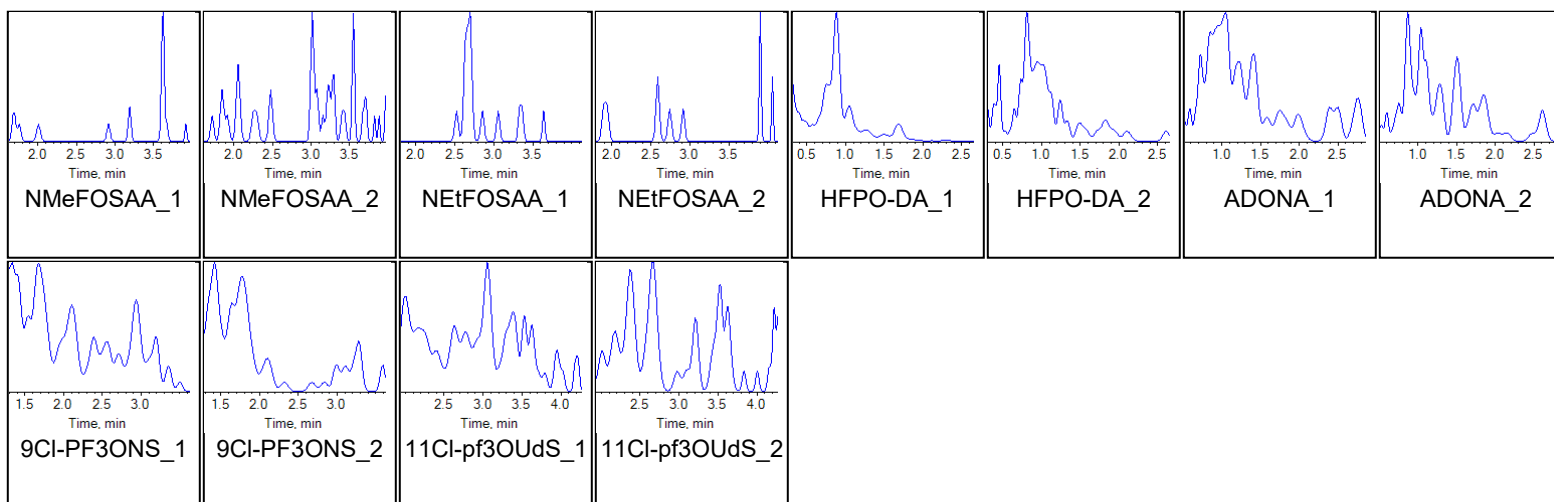
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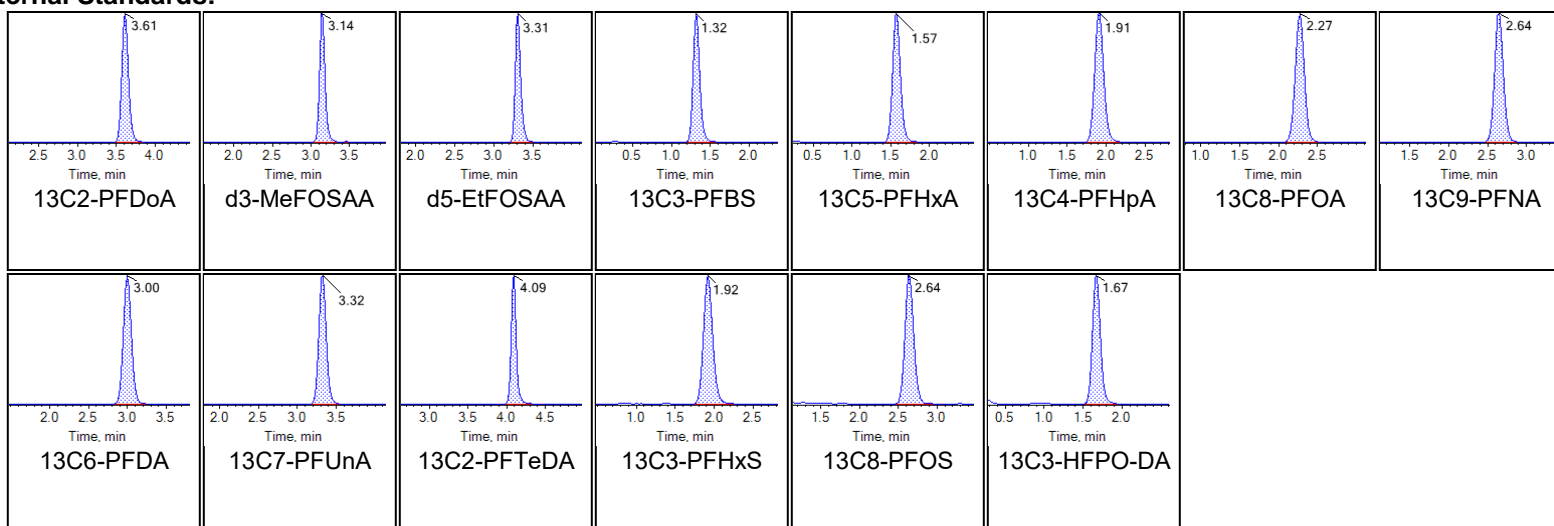


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Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM



Internal Standards:





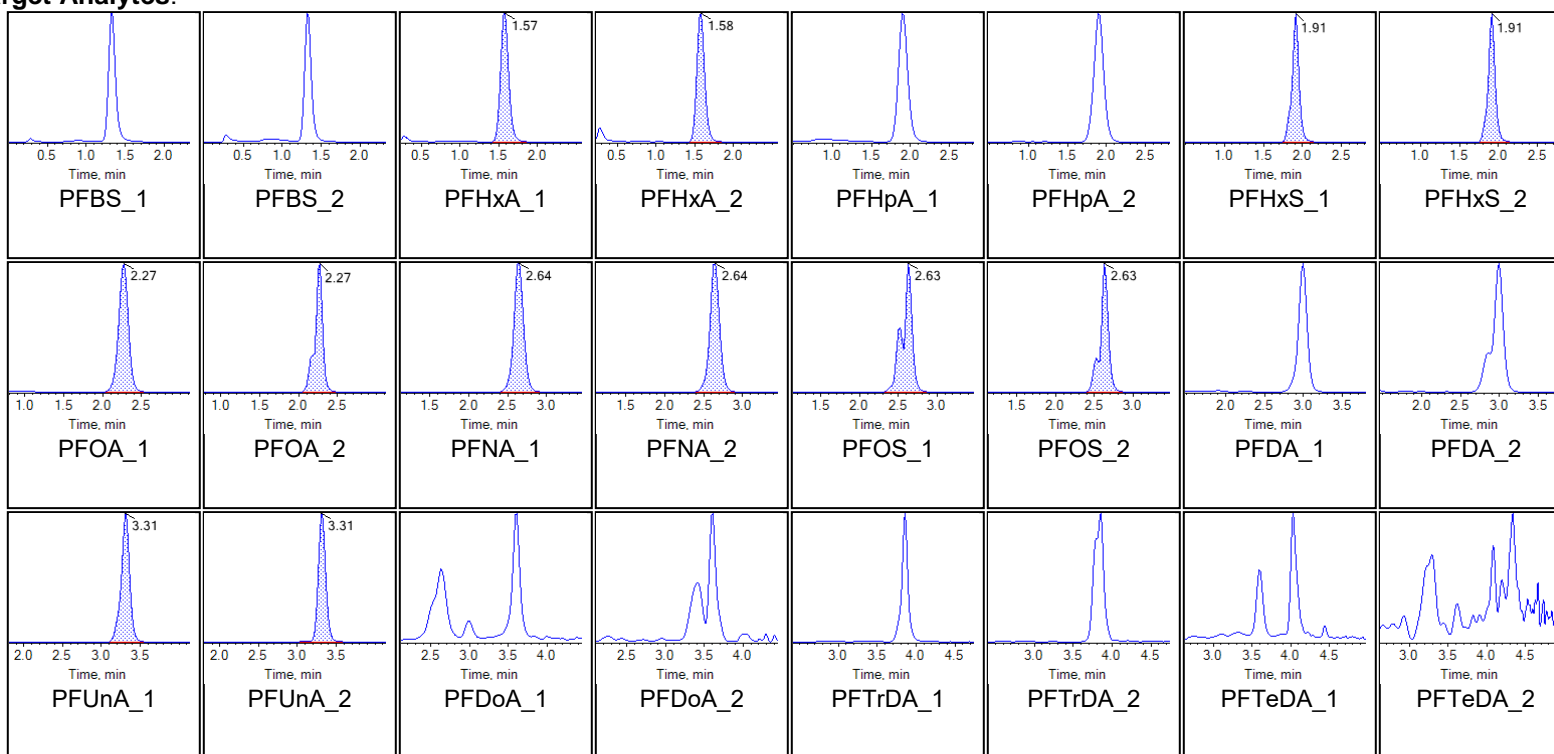
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1661-FS1-D(3) | Injection Vial | 14 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:47:41 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

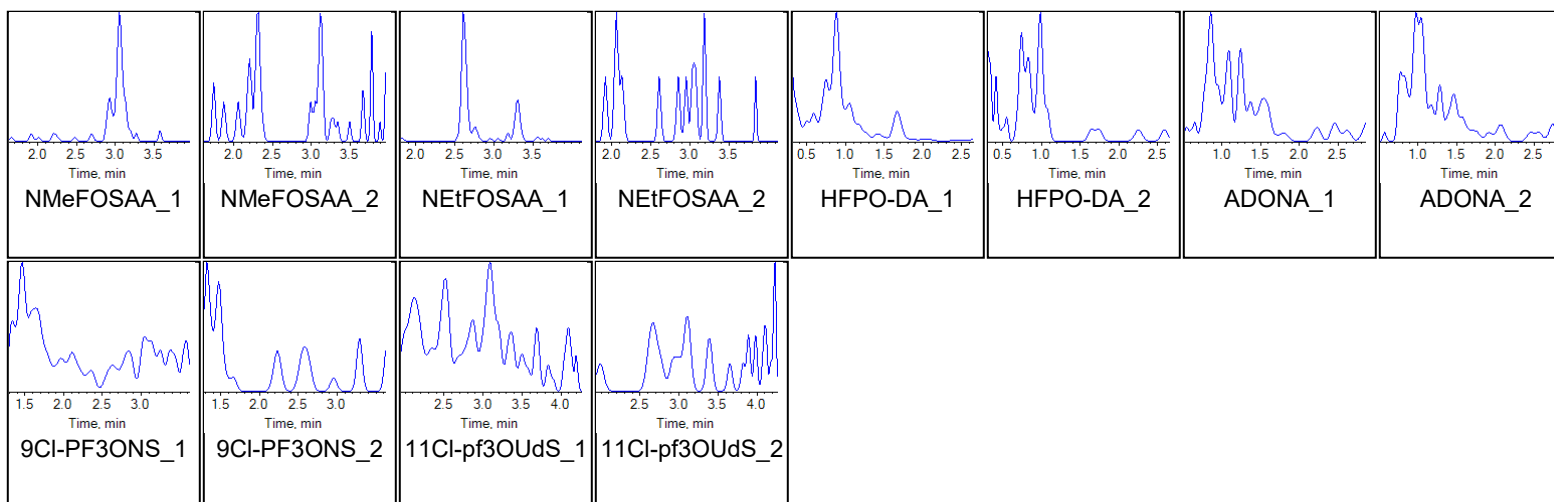
Chromatograms

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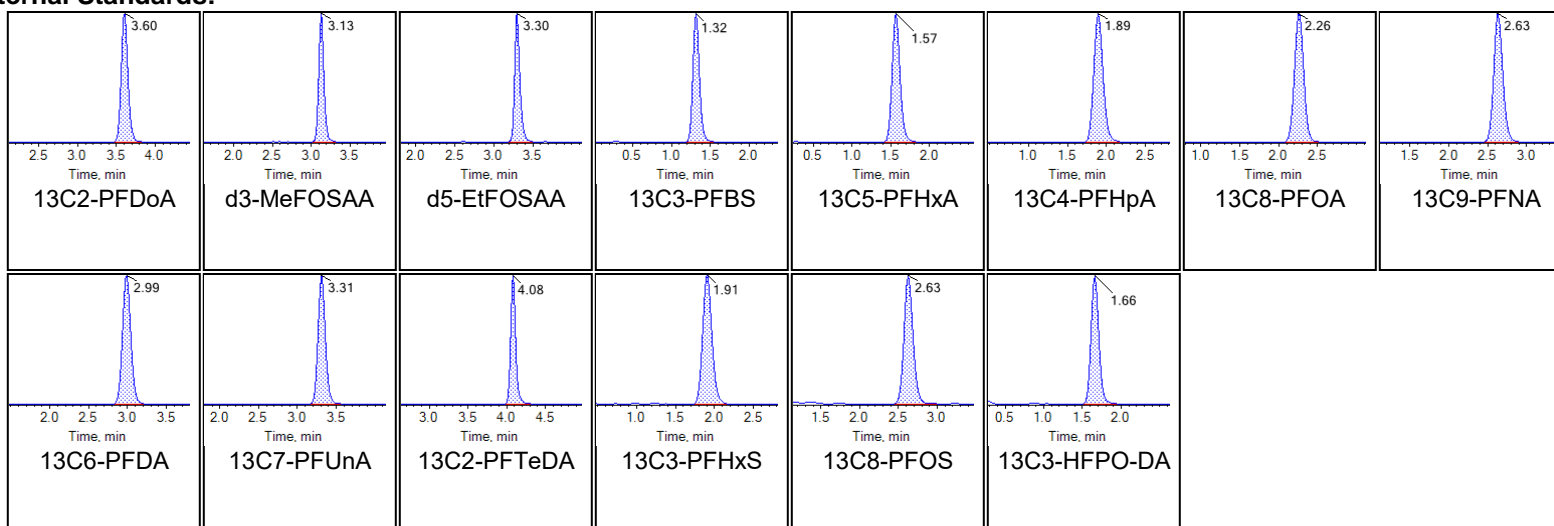




Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

Internal Standards:





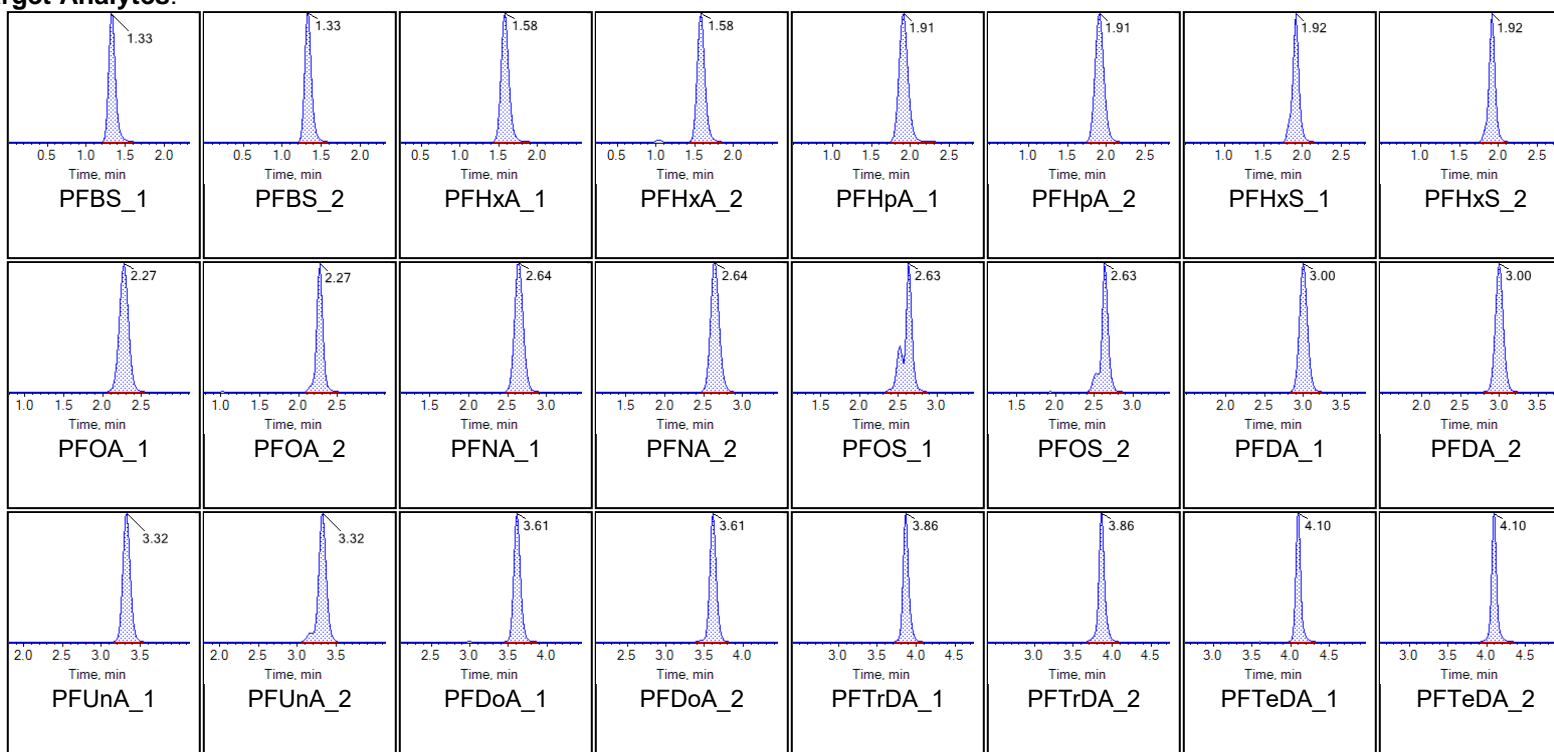
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 16 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:08:37 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

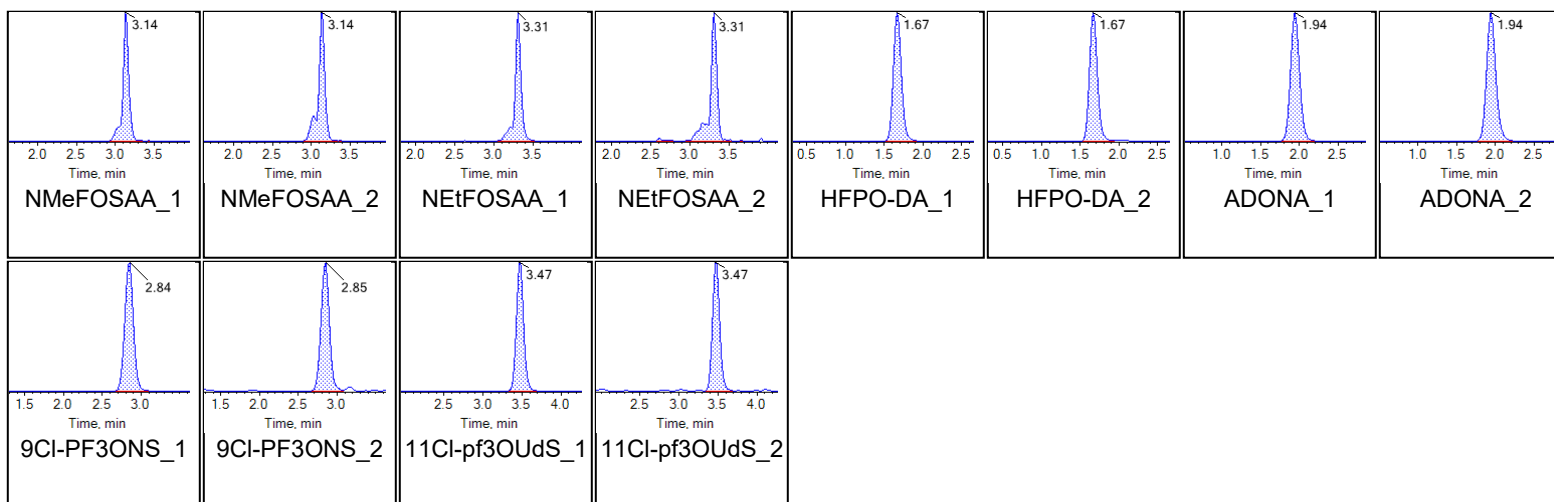
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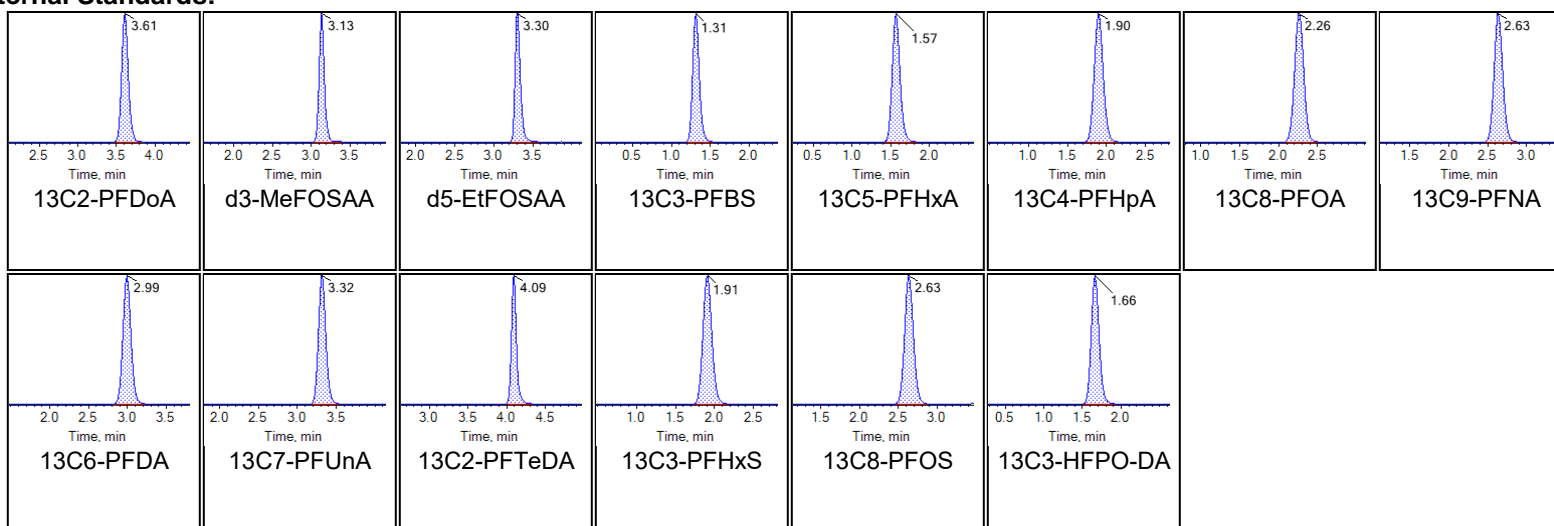




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Internal Standards:





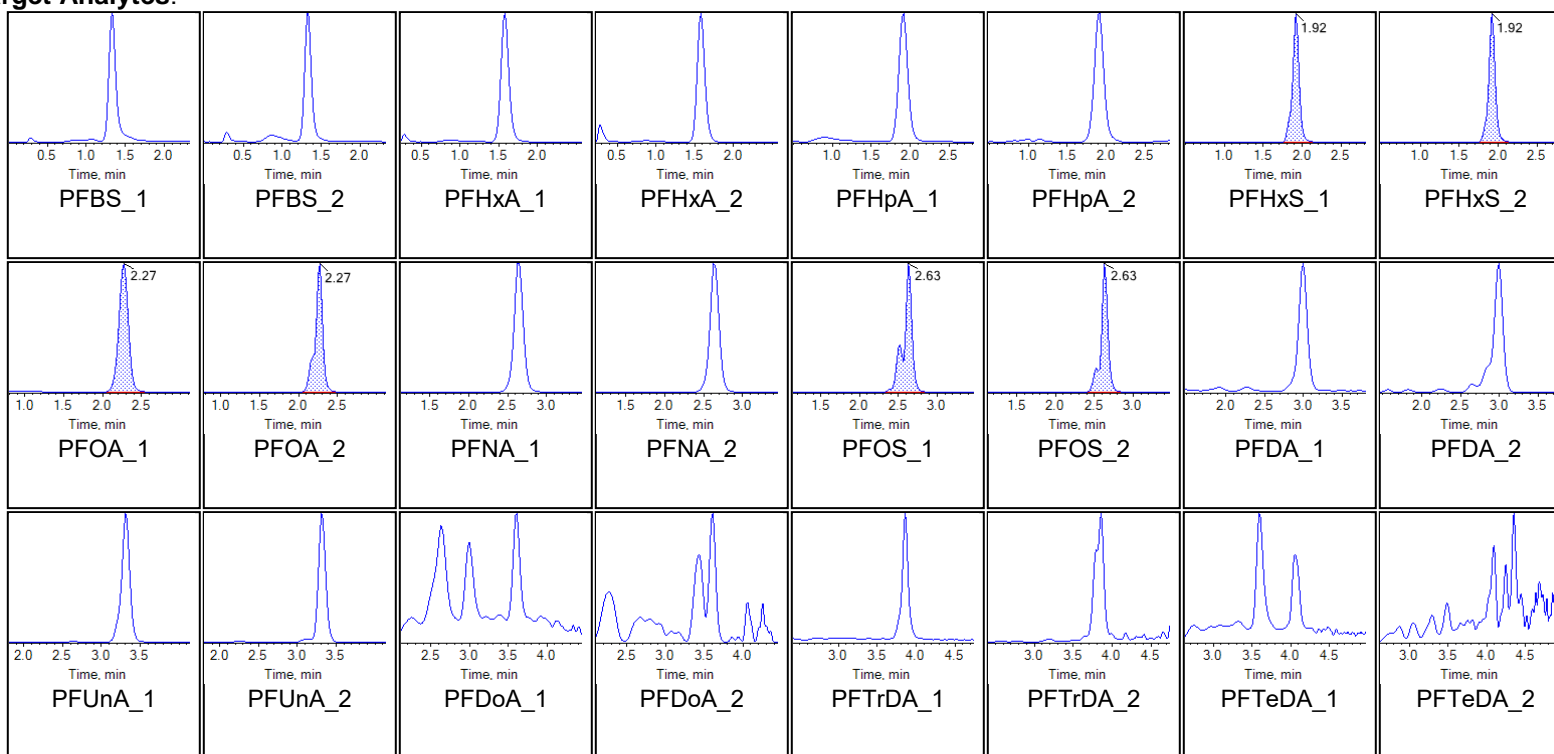
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1661-FS1-D(5) | Injection Vial | 17 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:19:06 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

Chromatograms

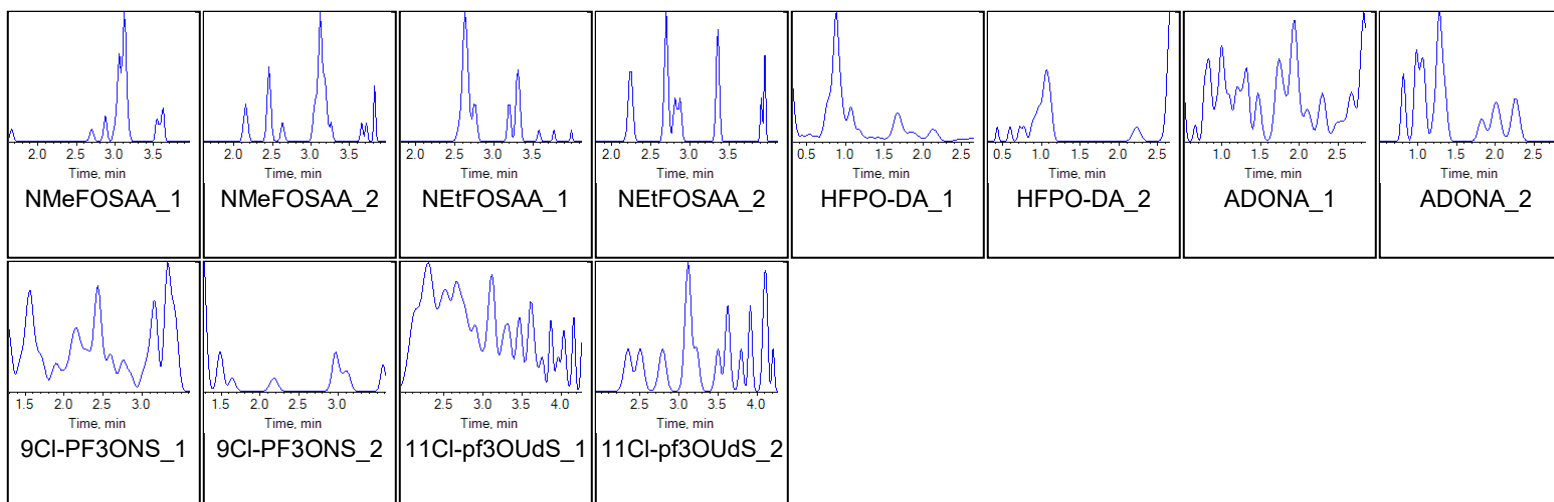
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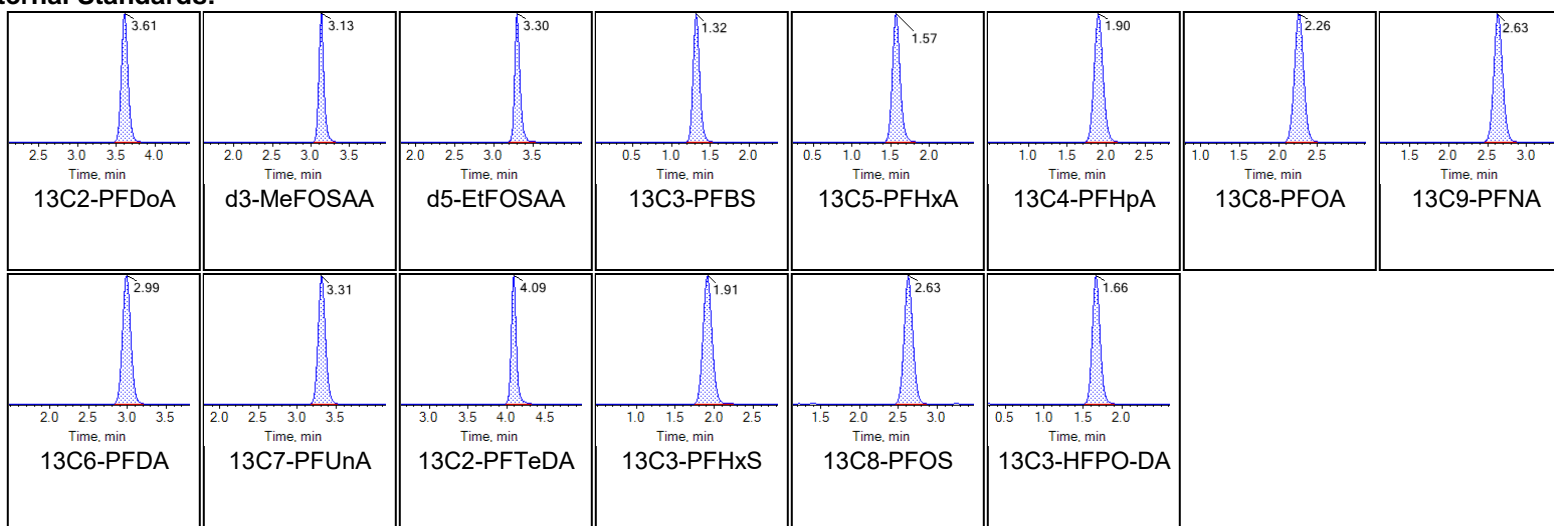


Chromatogram Report

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Internal Standards:





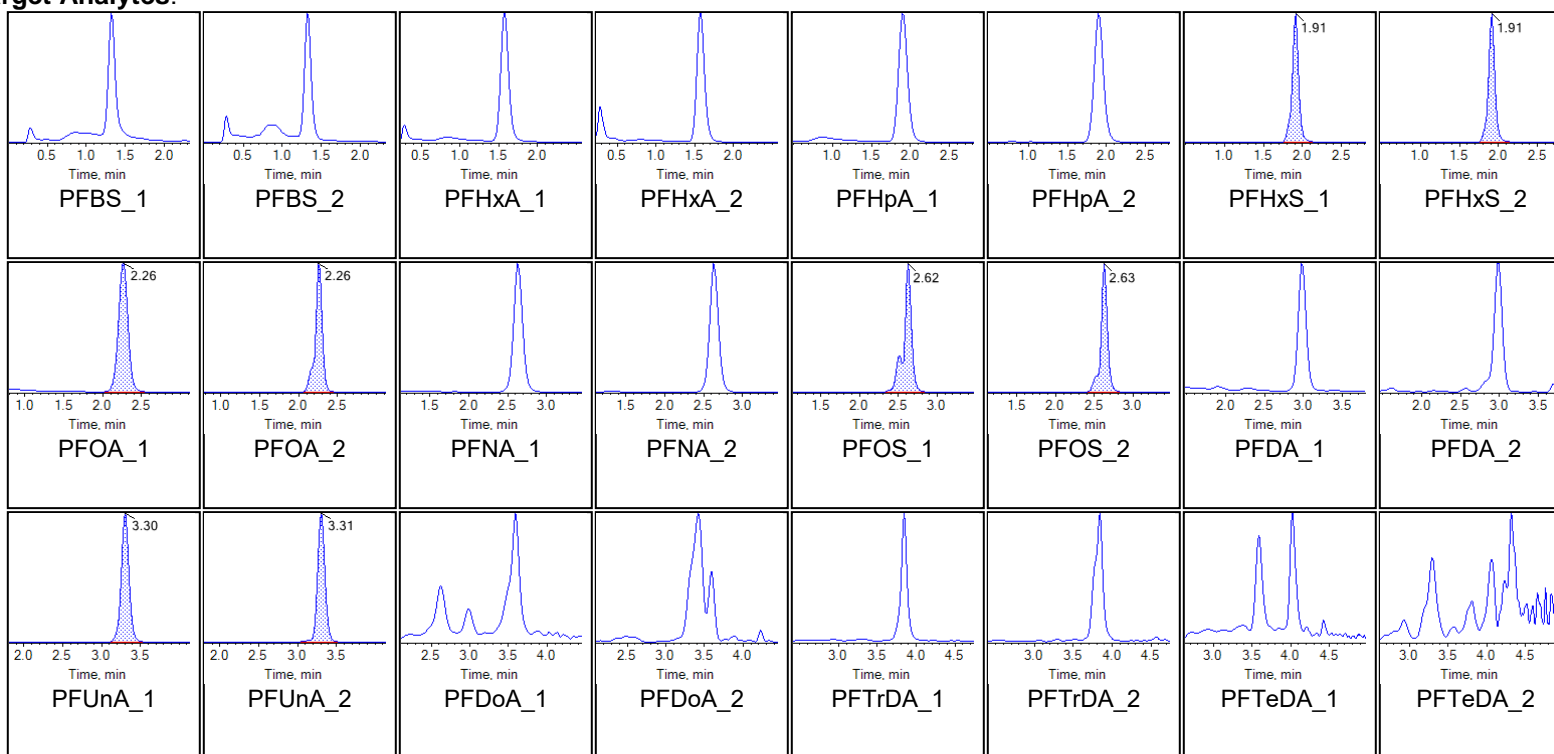
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1668-FS1-D(3) | Injection Vial | 19 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:40:03 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

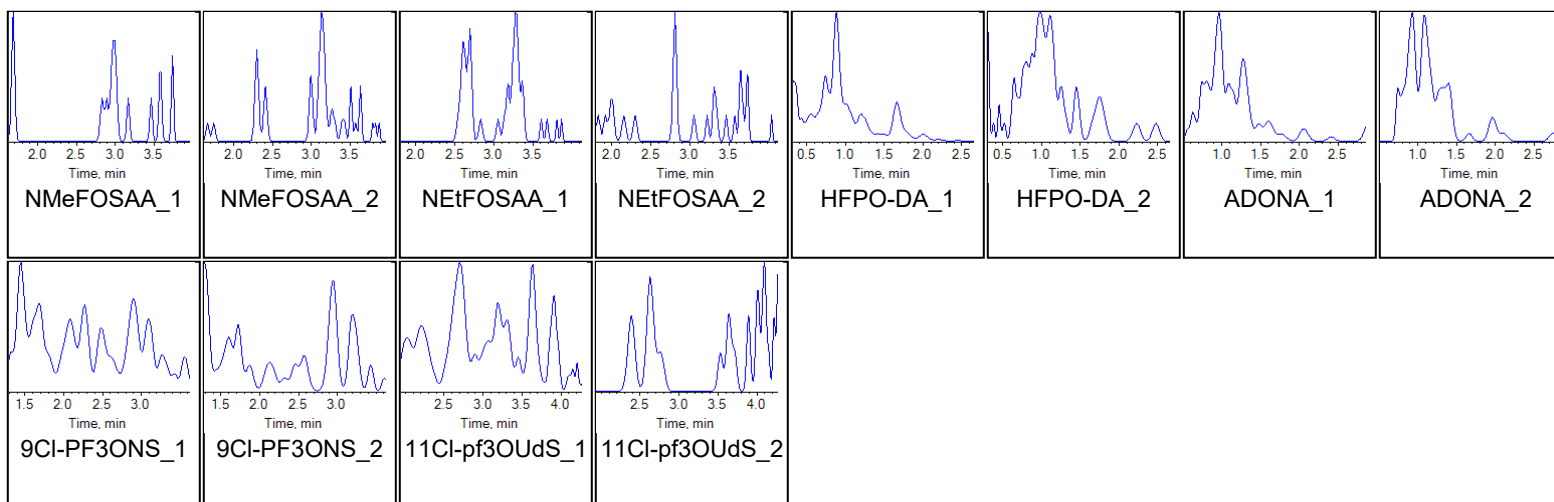
Chromatograms

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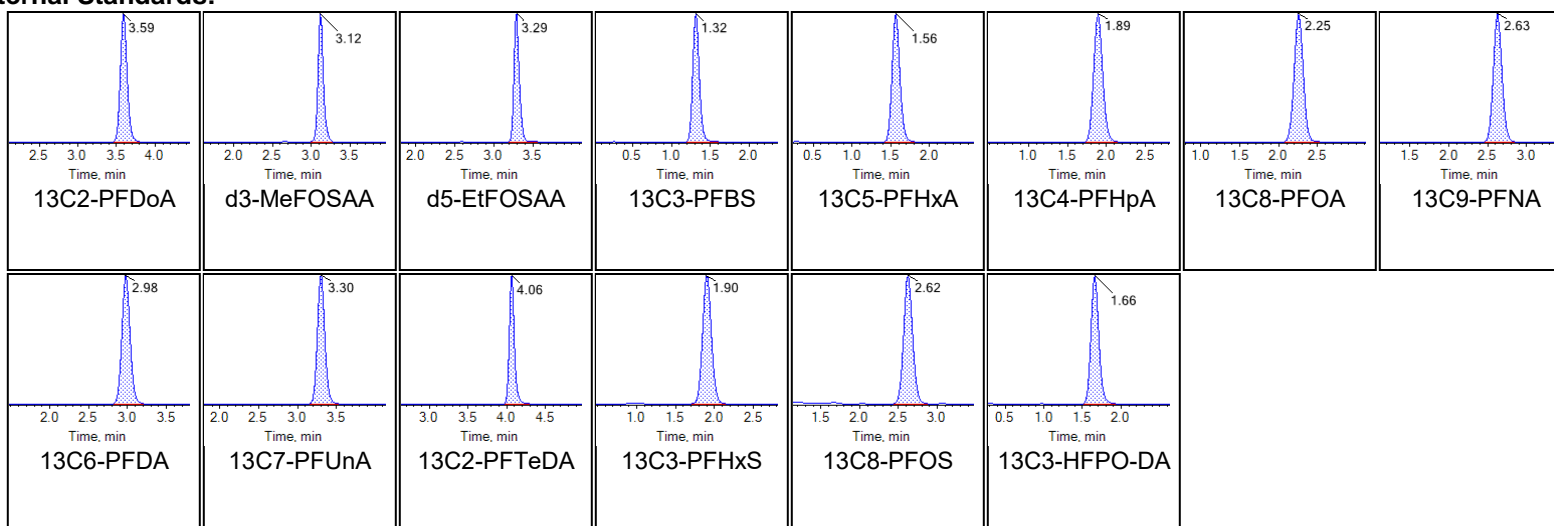




Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

Internal Standards:





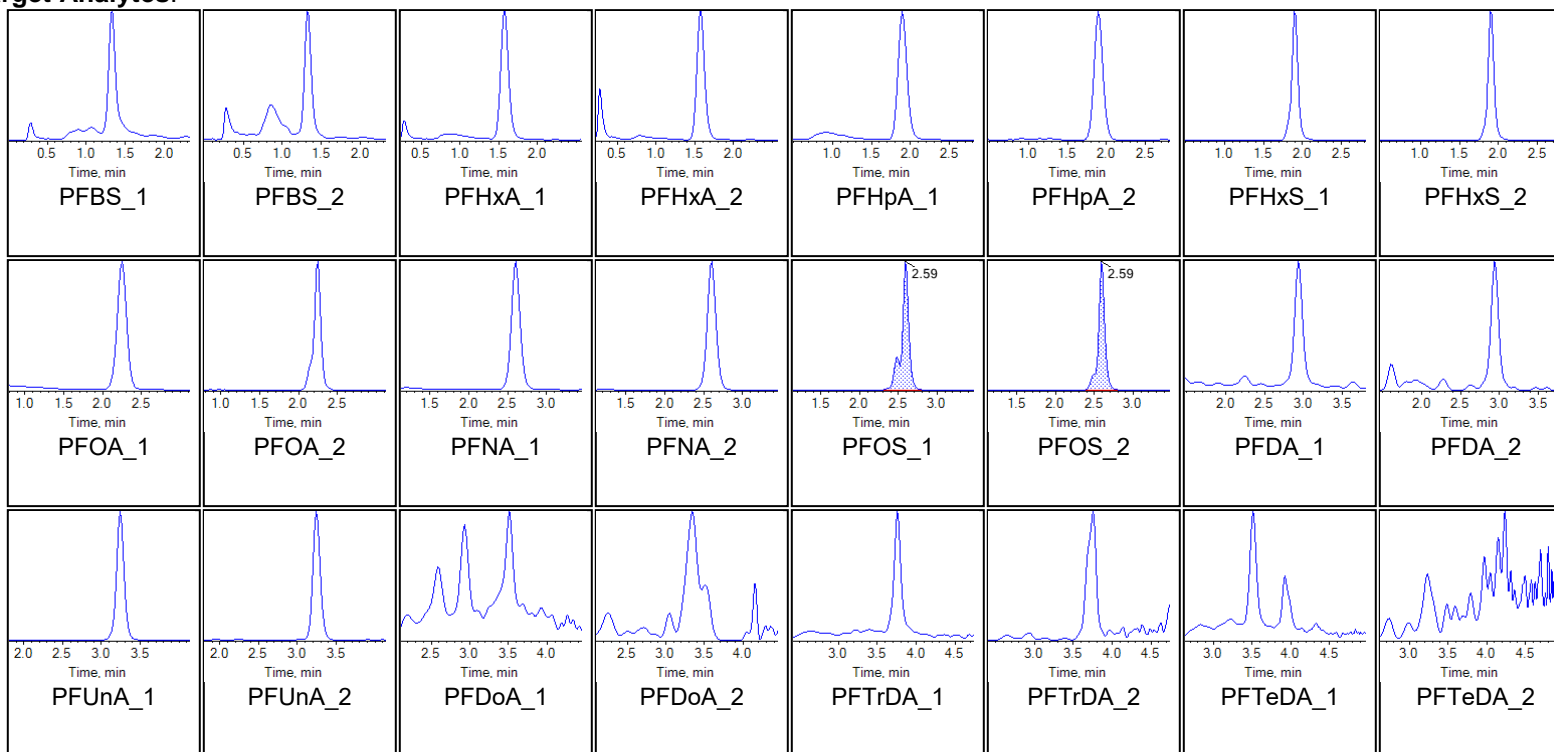
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1668-FS1-D(5) | Injection Vial | 20 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:50:31 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

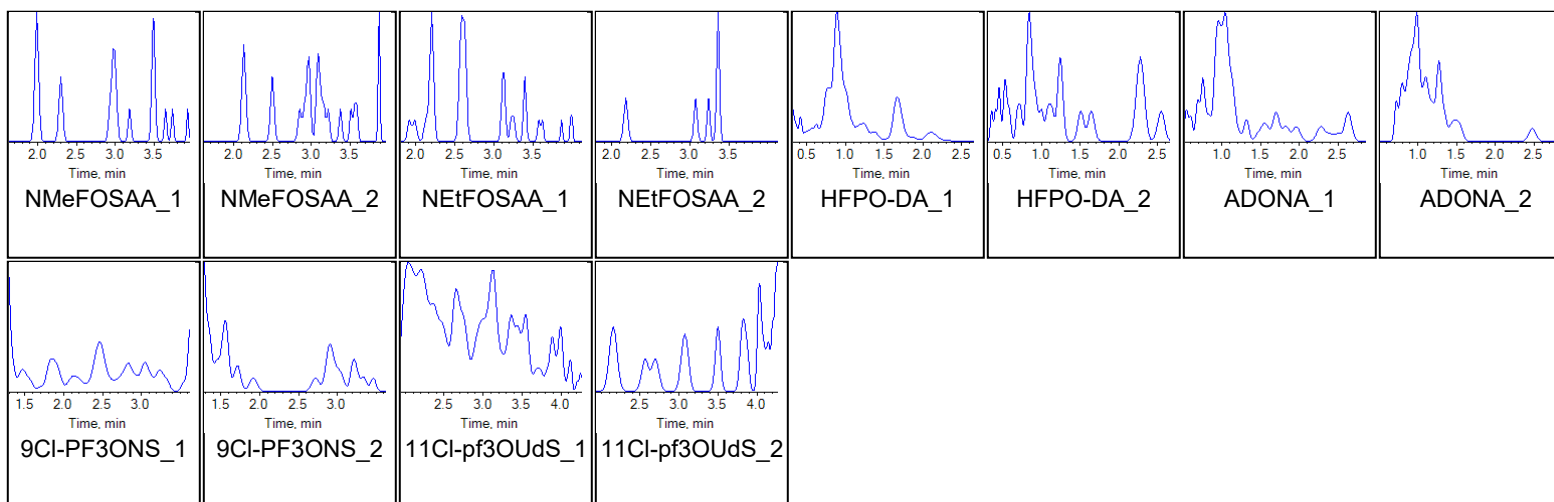
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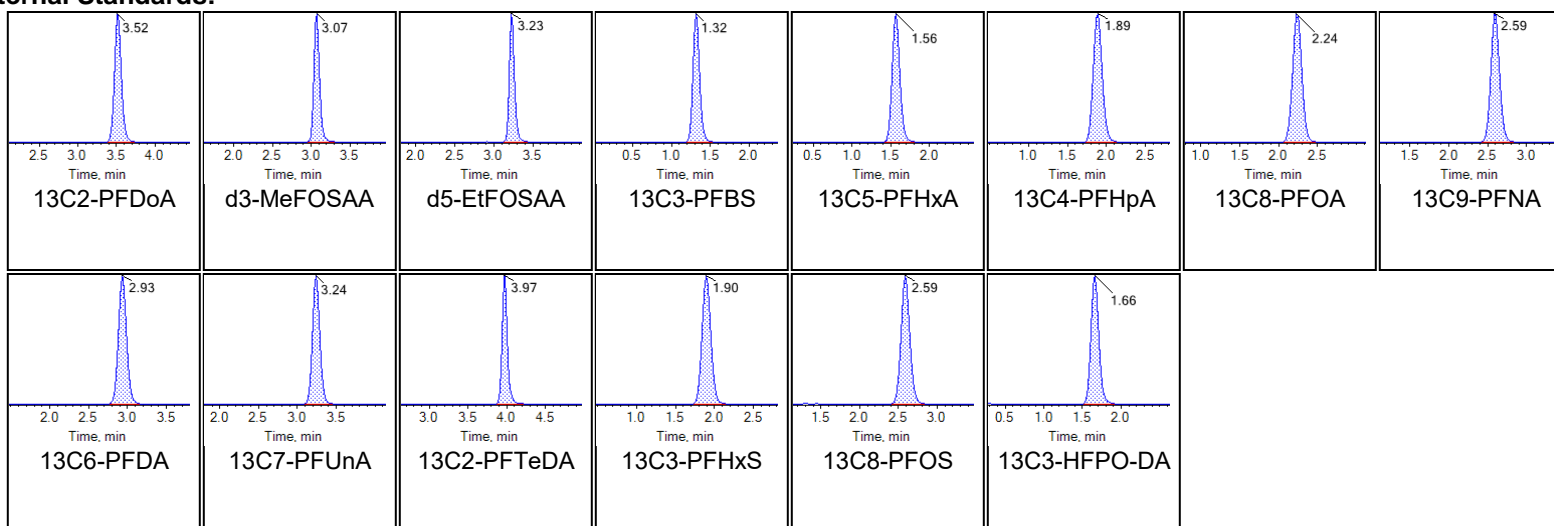




Chromatogram Report

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Internal Standards:





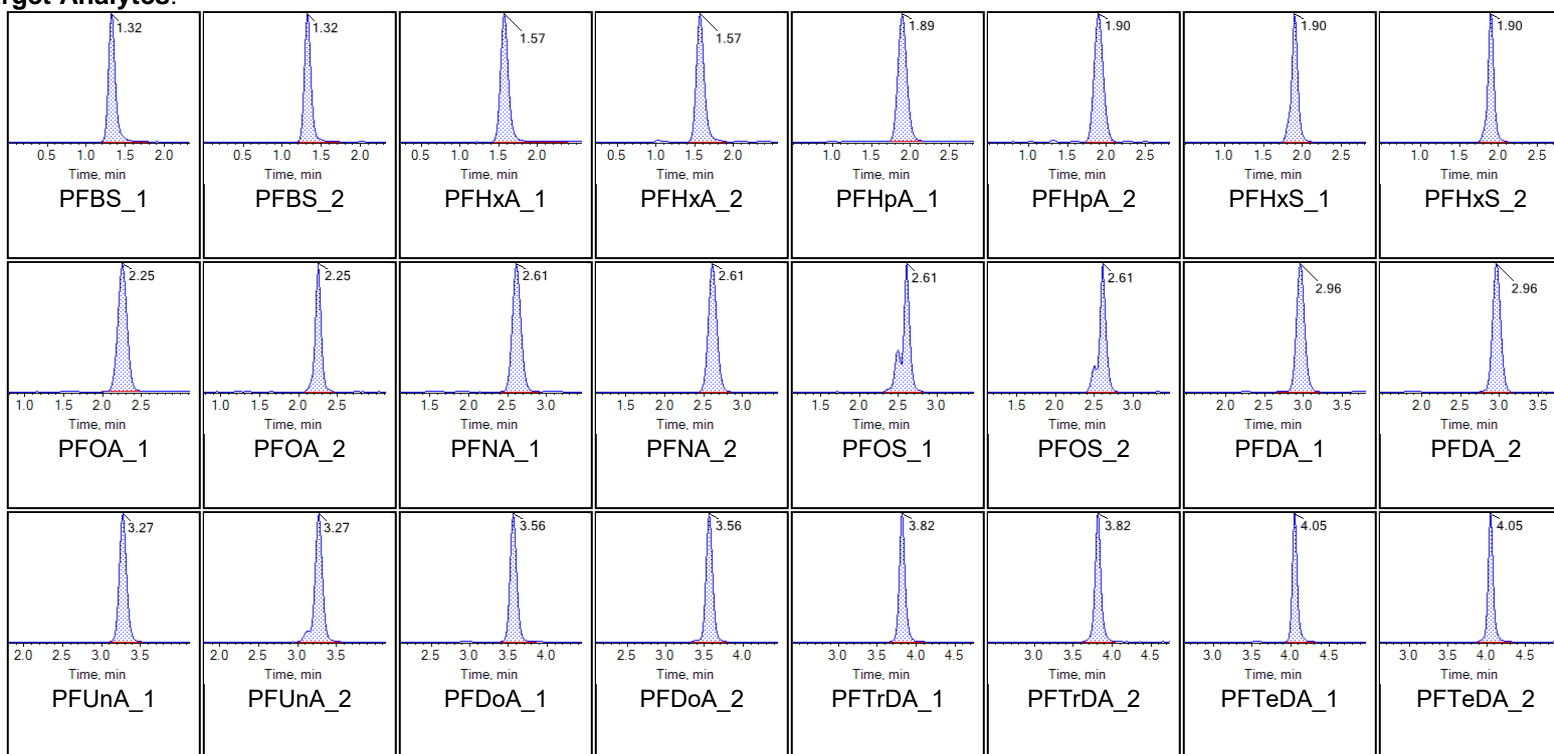
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 3:21:53 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

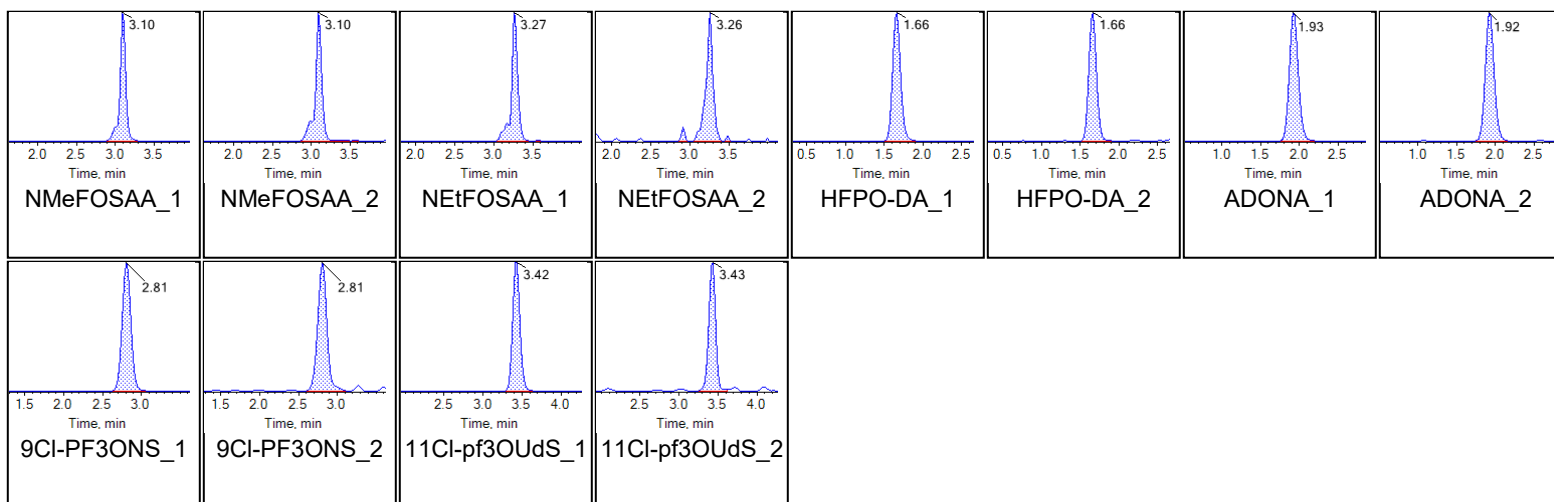
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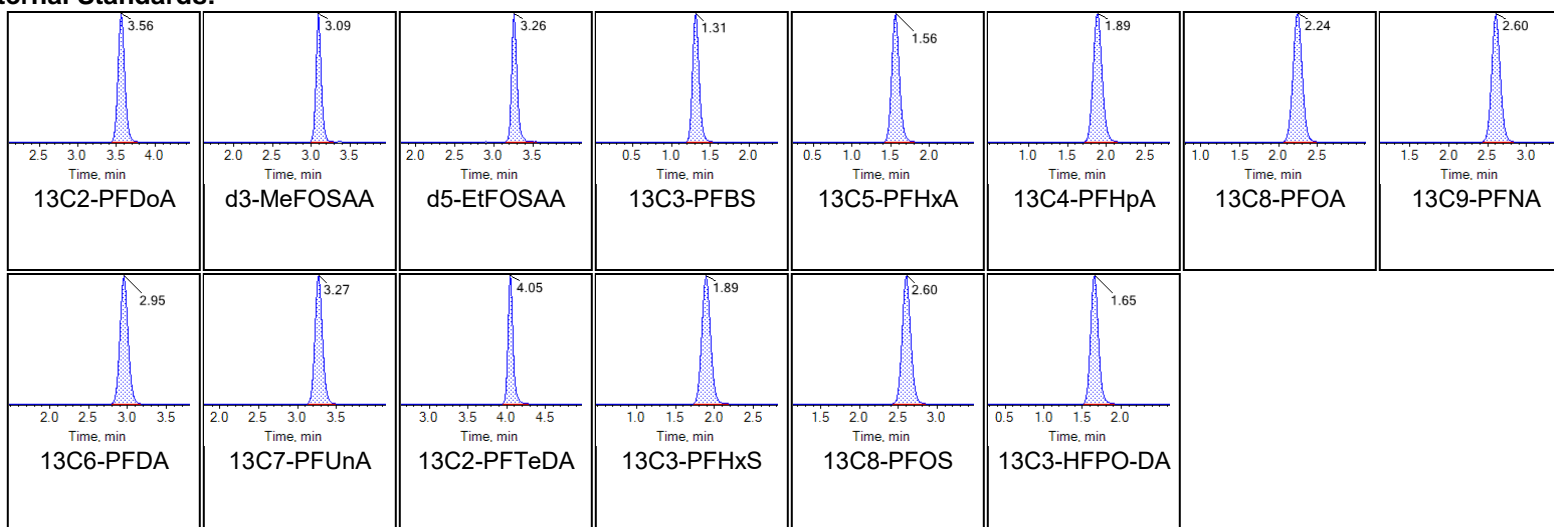




Chromatogram Report

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Internal Standards:





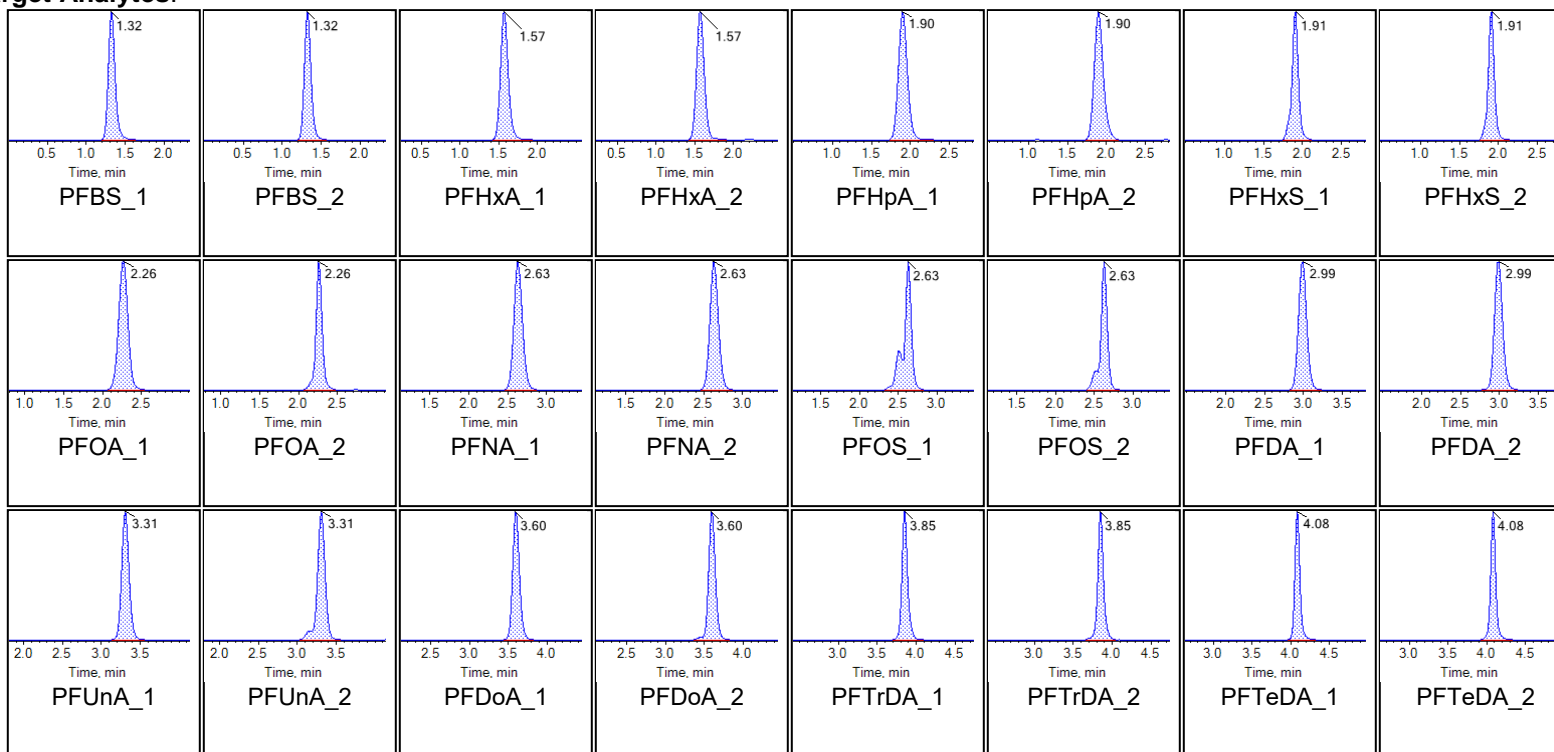
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 10 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 5:06:36 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

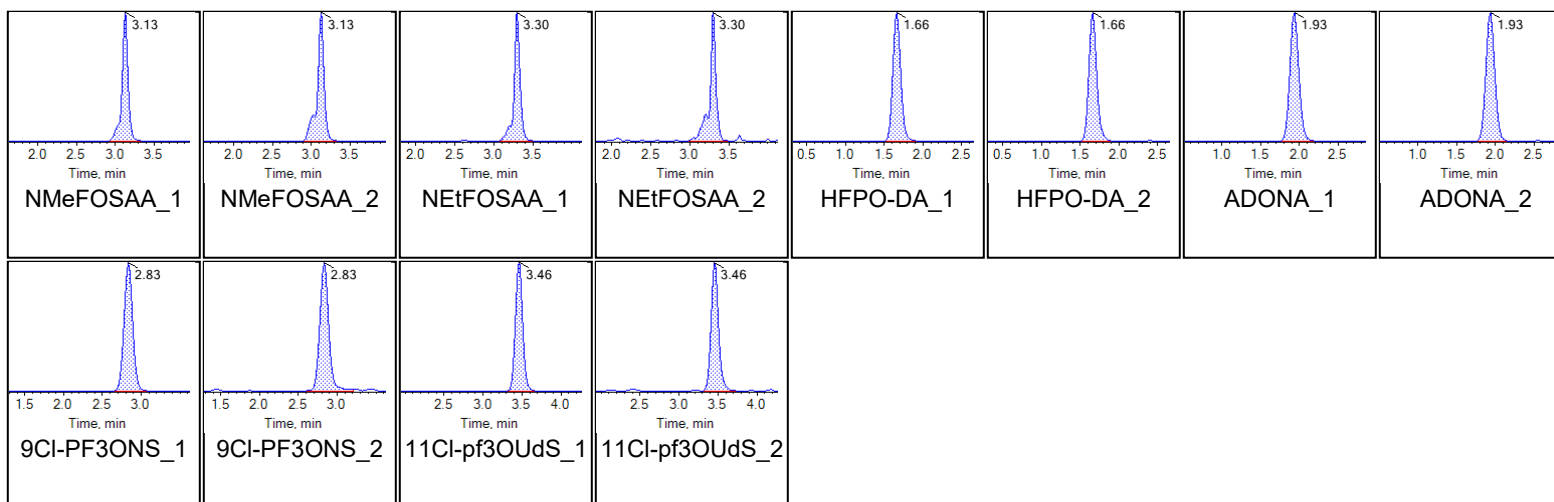
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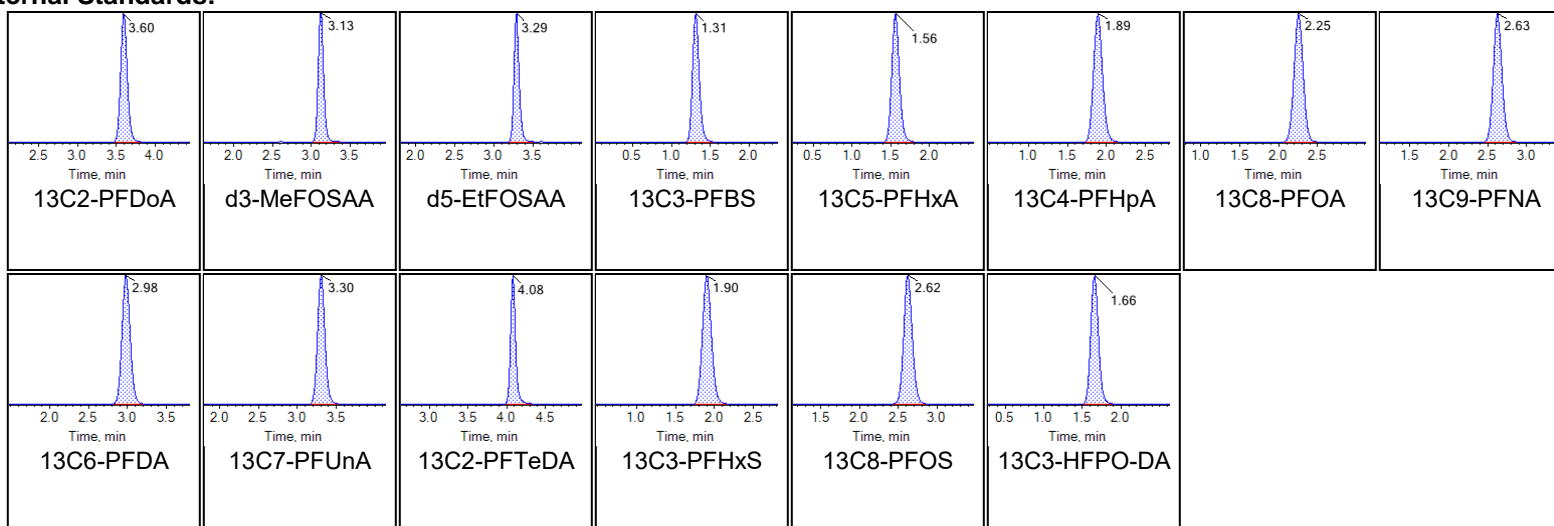




Chromatogram Report

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Printed: 10/11/2020 6:23:59 PM

Internal Standards:





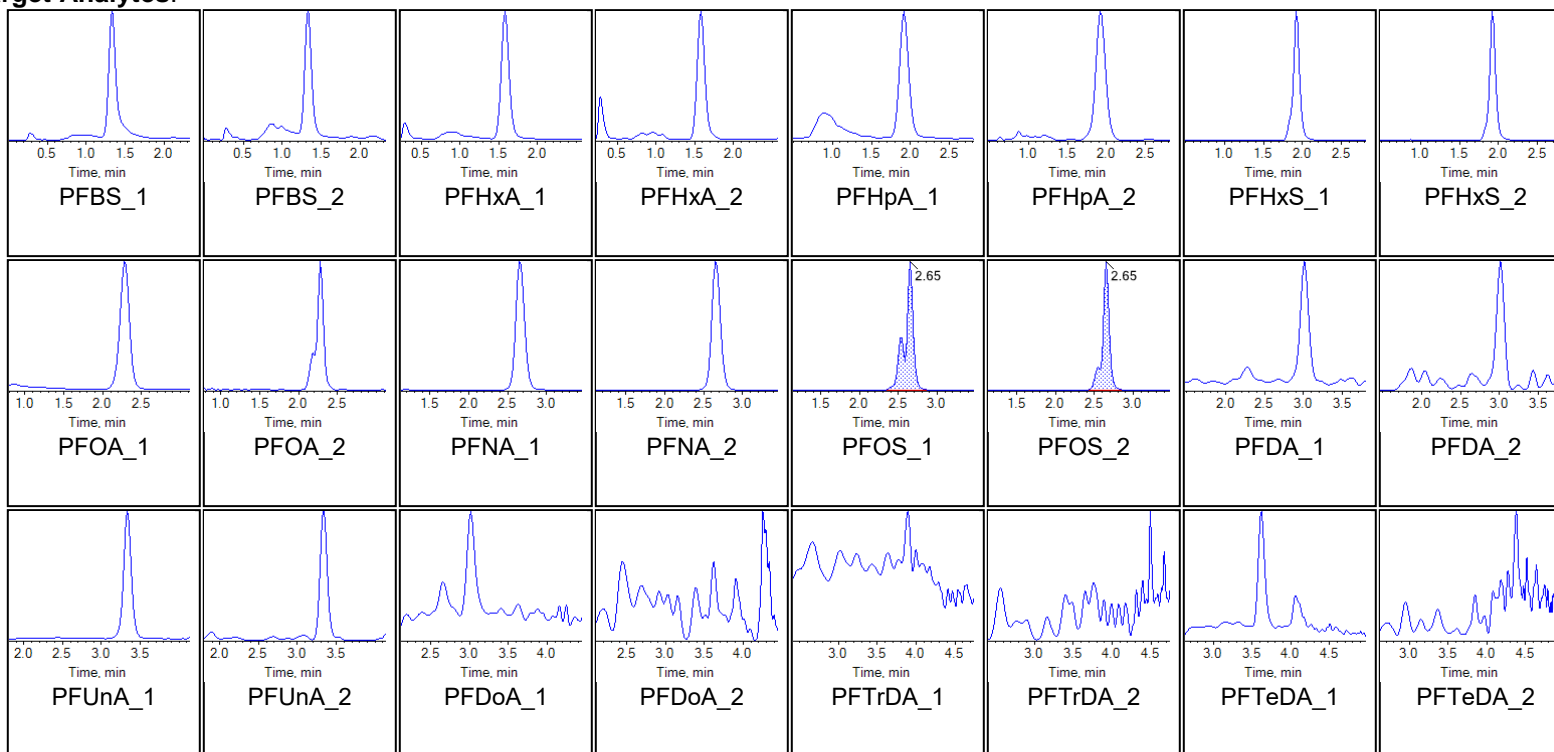
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1644-FS1-D(7) | Injection Vial | 2 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 5:58:41 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

Chromatograms

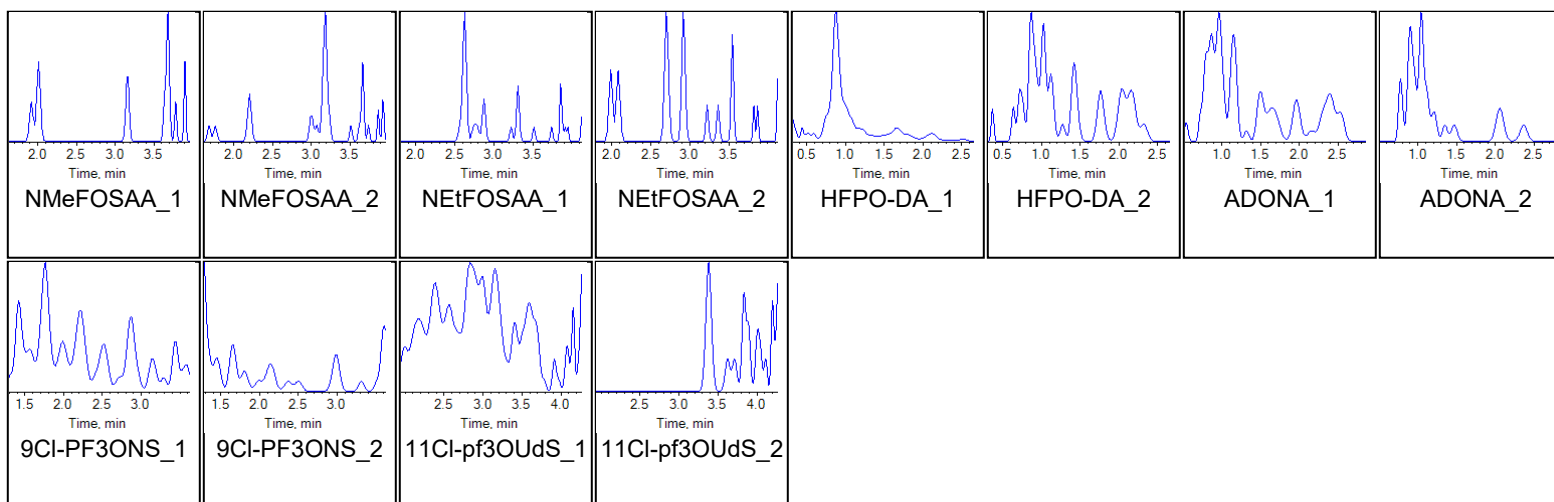
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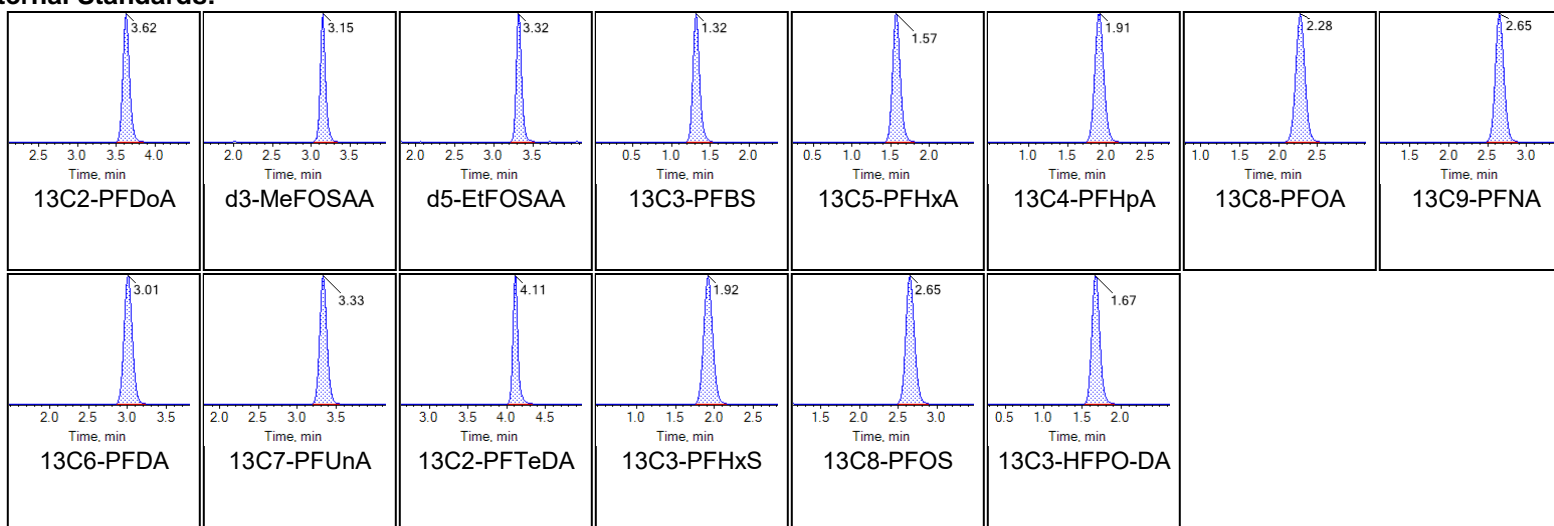


Chromatogram Report

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Internal Standards:





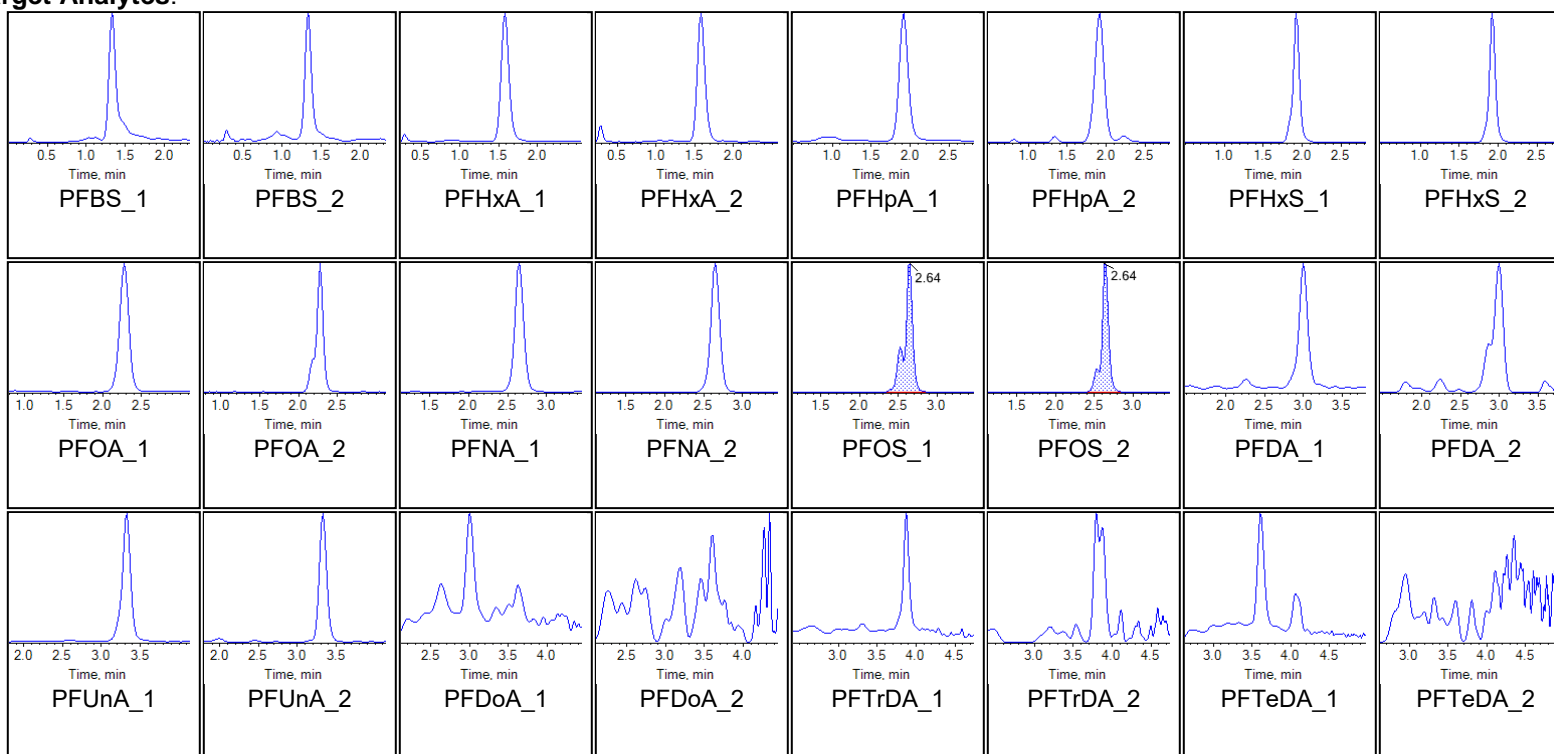
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1661-FS1-D(9) | Injection Vial | 3 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 6:09:10 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

Chromatograms

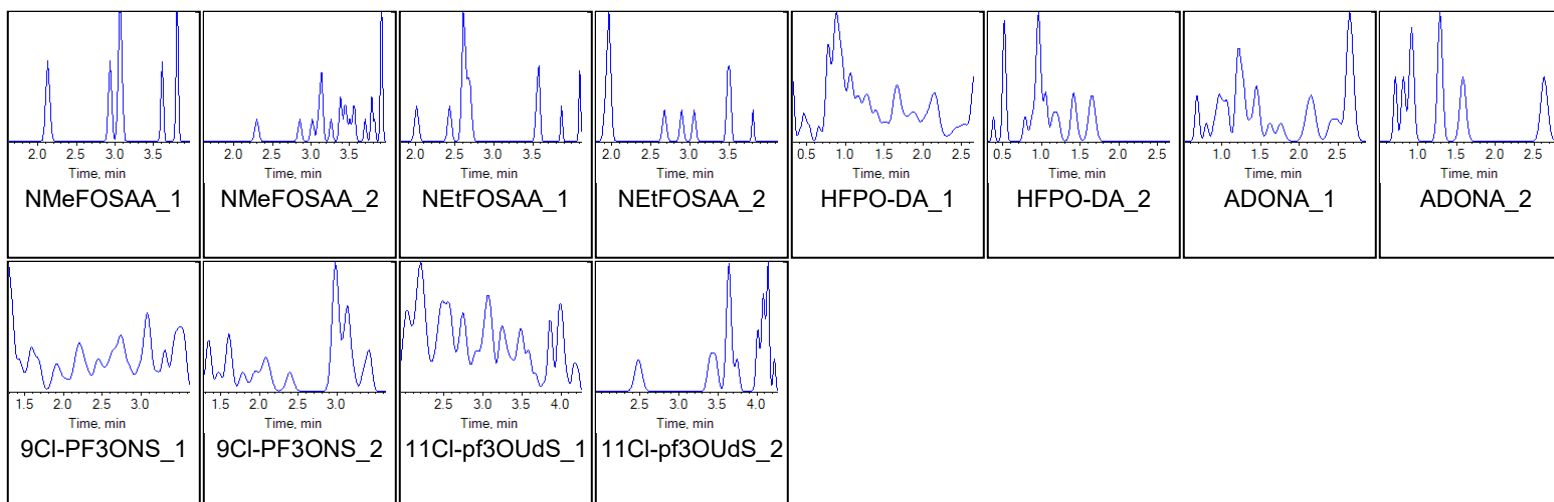
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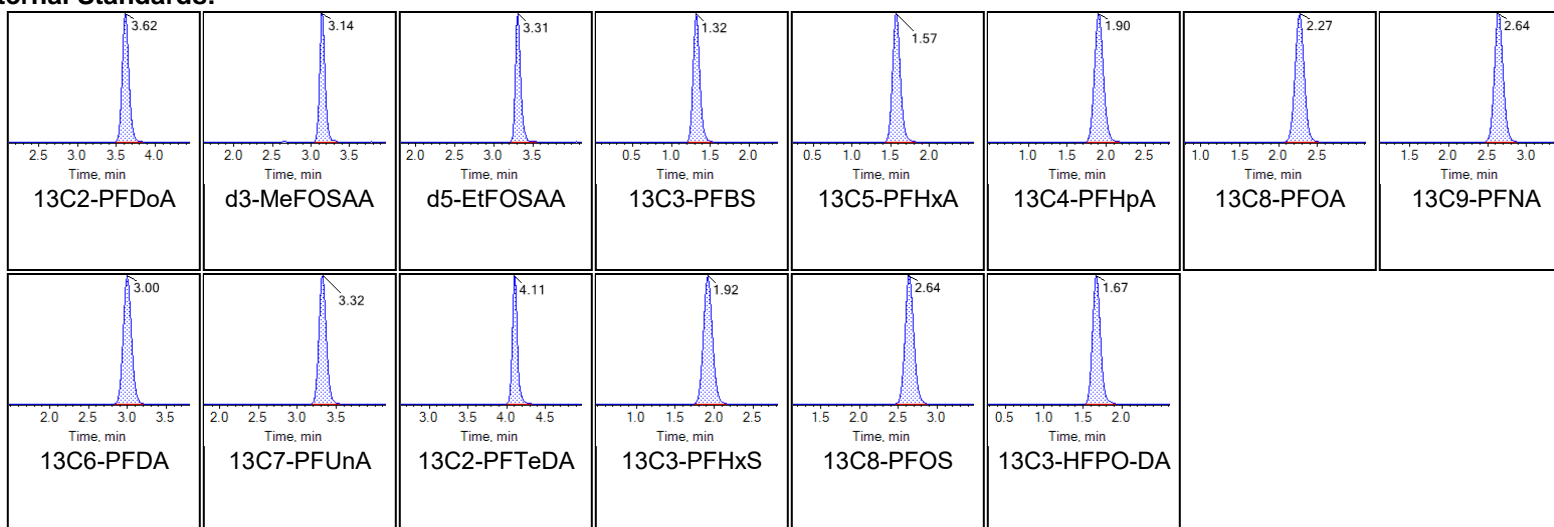


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Internal Standards:





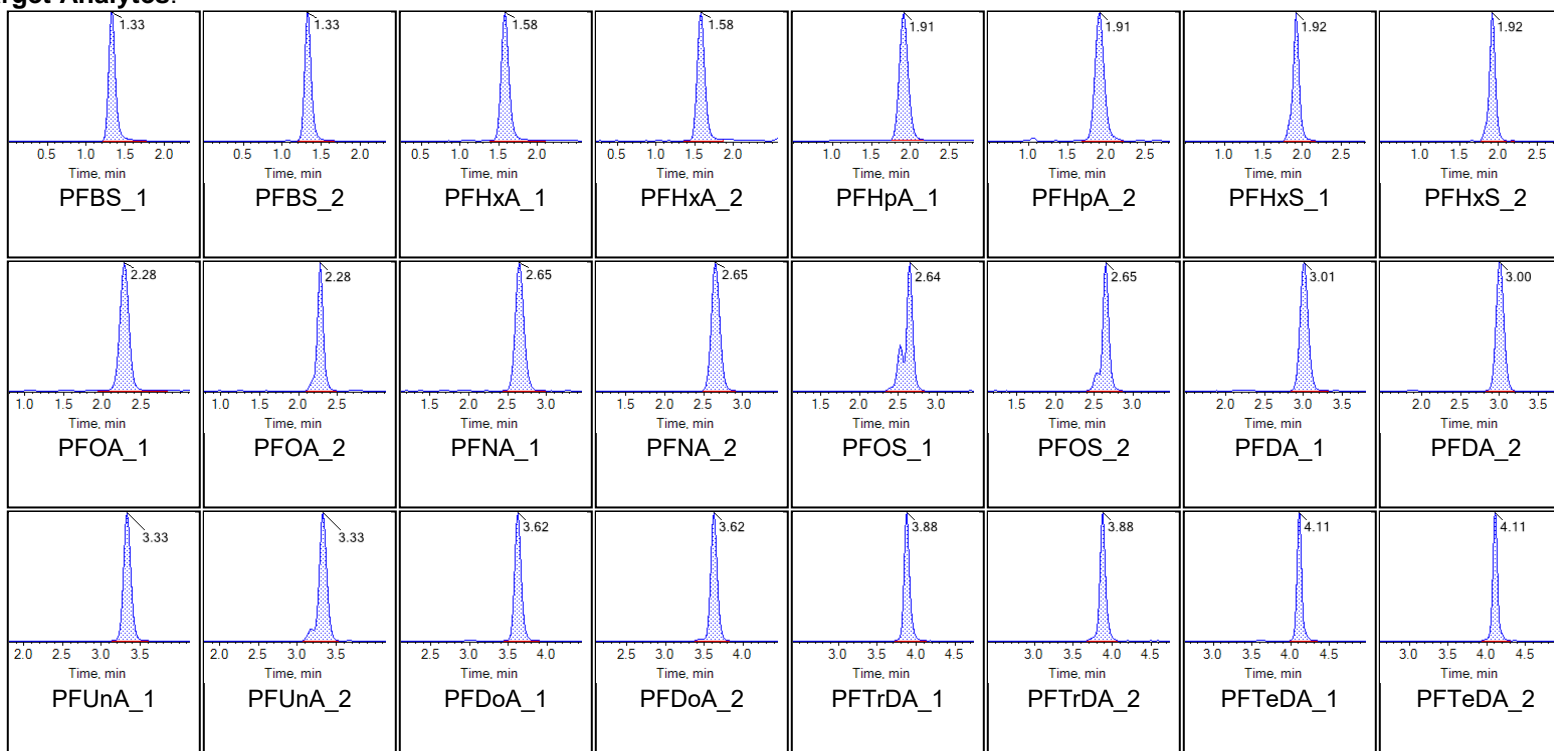
Chromatogram Report

Created with Analyst Reporter
Printed: 10/11/2020 6:23:59 PM

| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 4 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 6:19:40 PM | Data File | AE_11092020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419 |

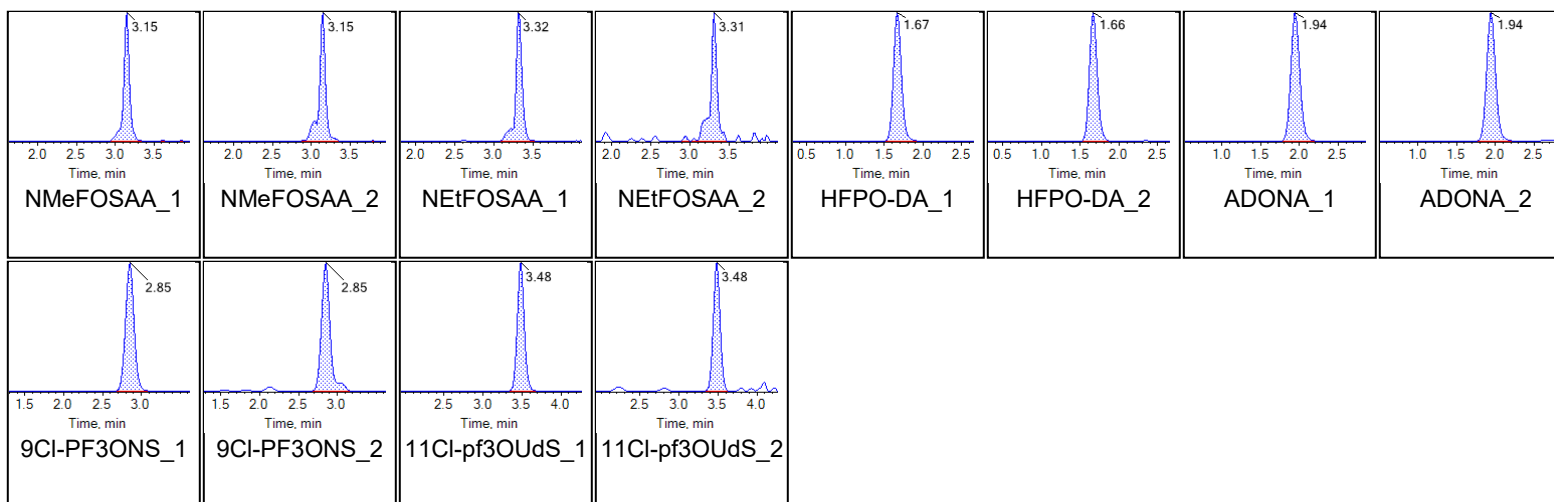
Chromatograms

Target Analytes:

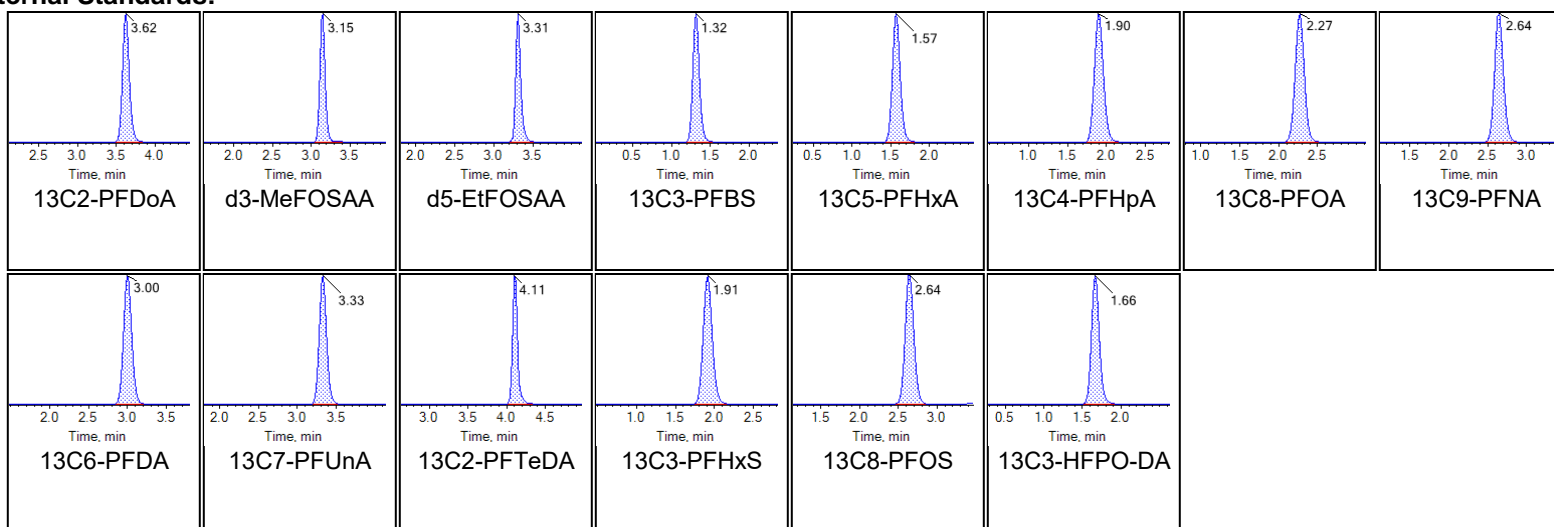




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Internal Standards:





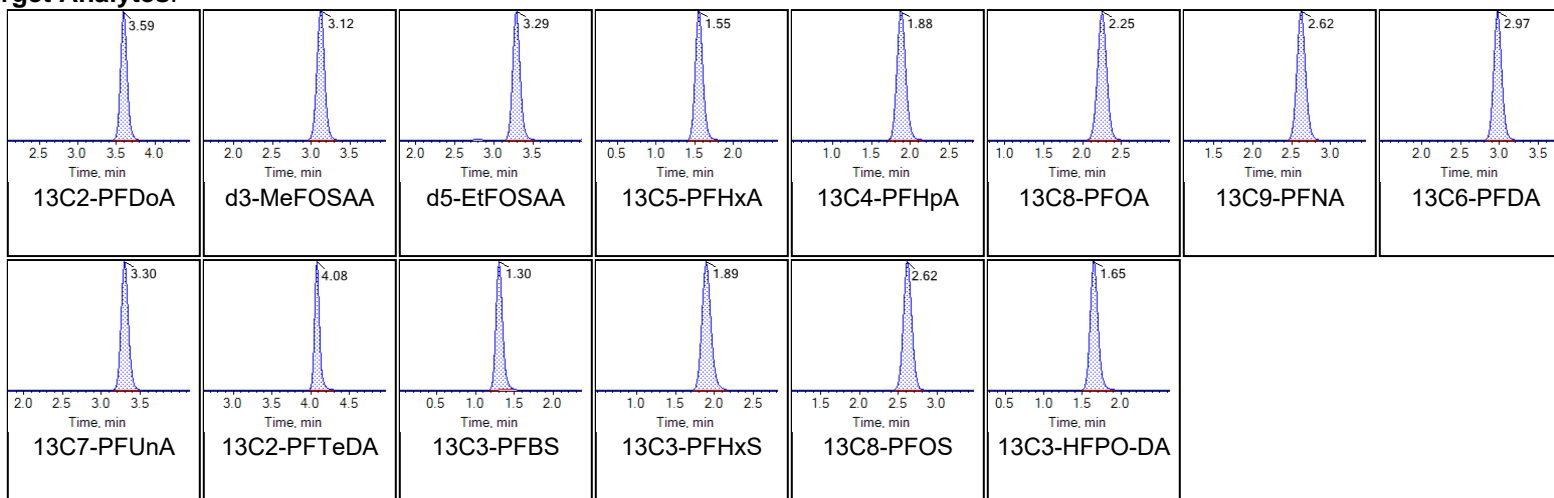
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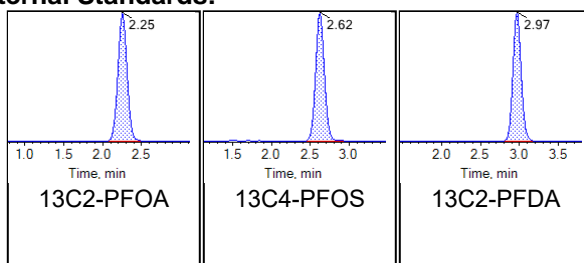
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD74 | Injection Vial | 2 |
| Sample ID | L1 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:46:02 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





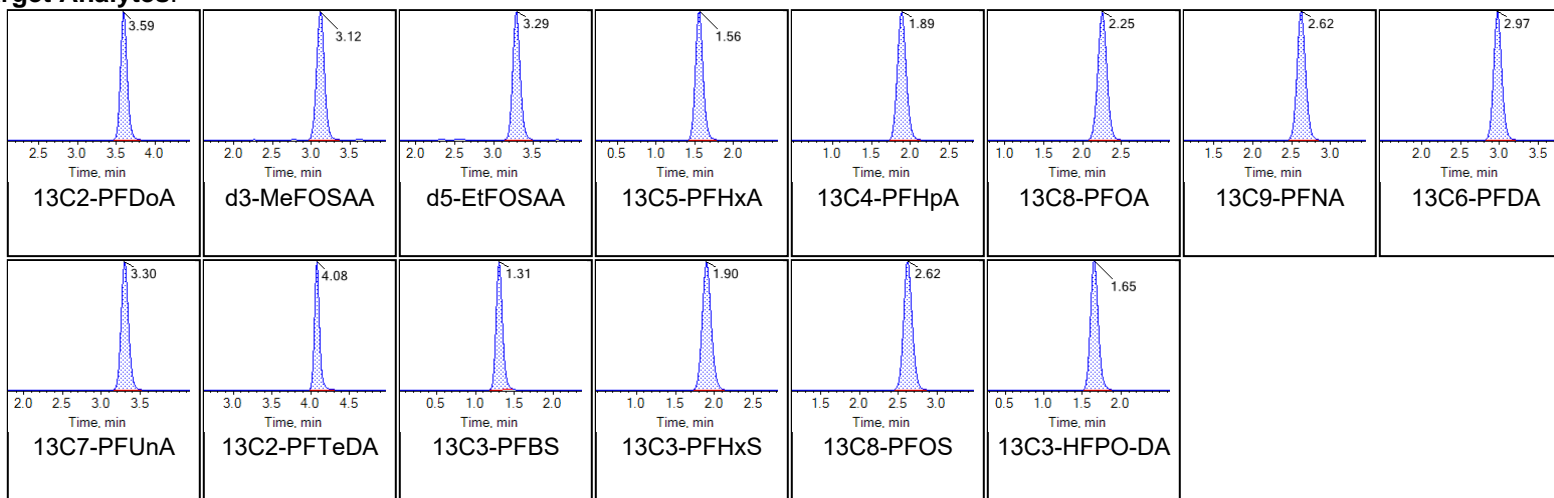
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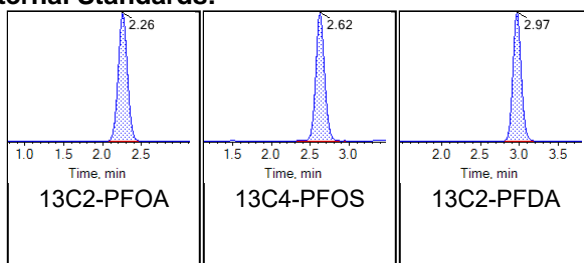
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD75 | Injection Vial | 3 |
| Sample ID | L2 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 1:56:29 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





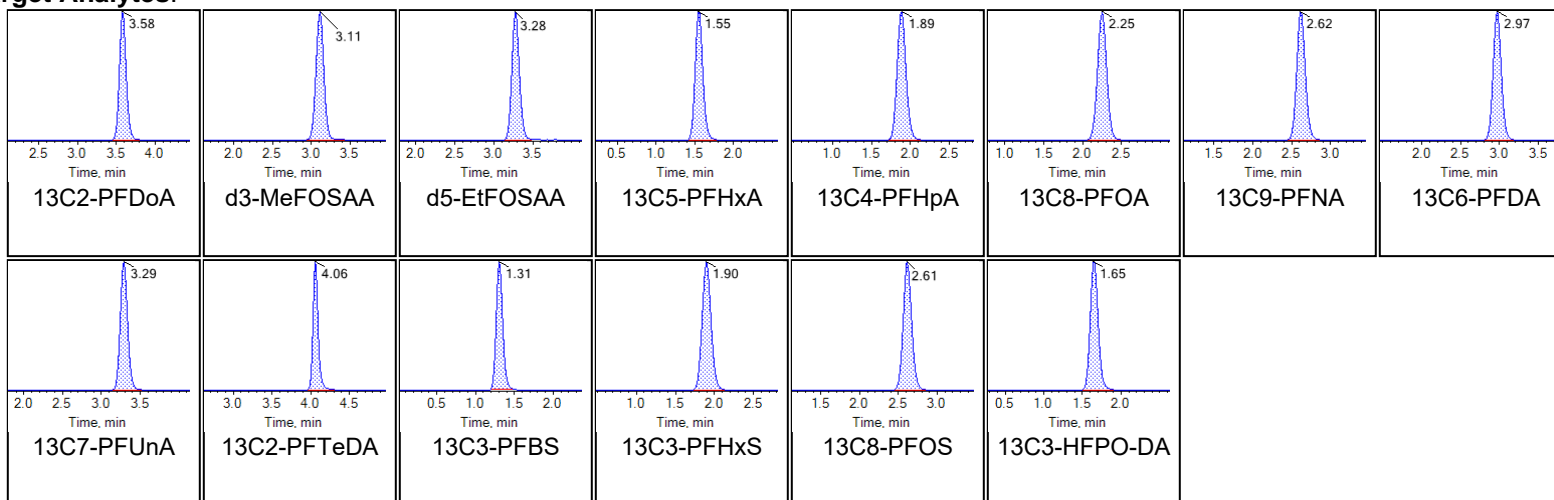
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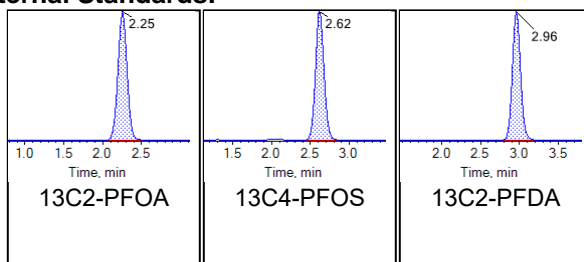
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD76 | Injection Vial | 4 |
| Sample ID | L3 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:06:57 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





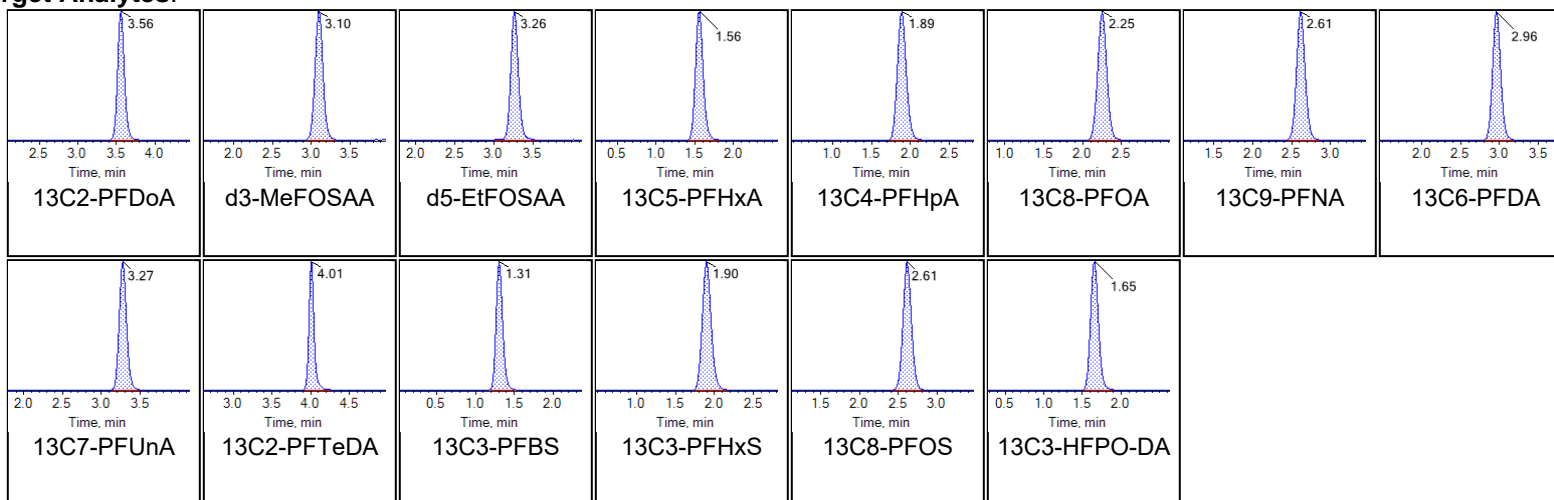
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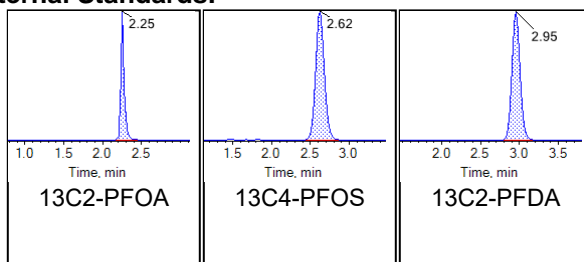
| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD77 | Injection Vial | 5 |
| Sample ID | L4 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:17:24 PM | Data File | AE_11052020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





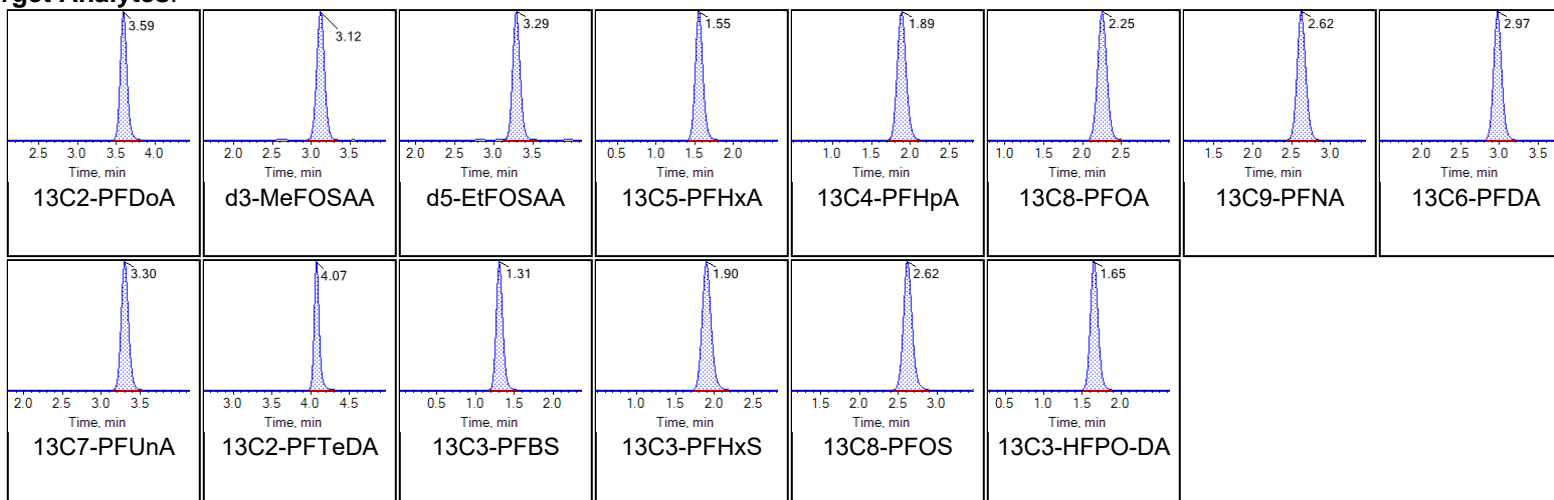
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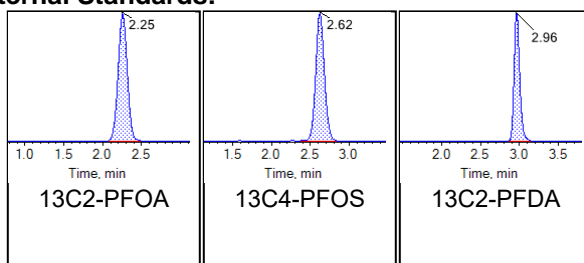
| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD78 | Injection Vial | 6 |
| Sample ID | L5 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:27:51 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





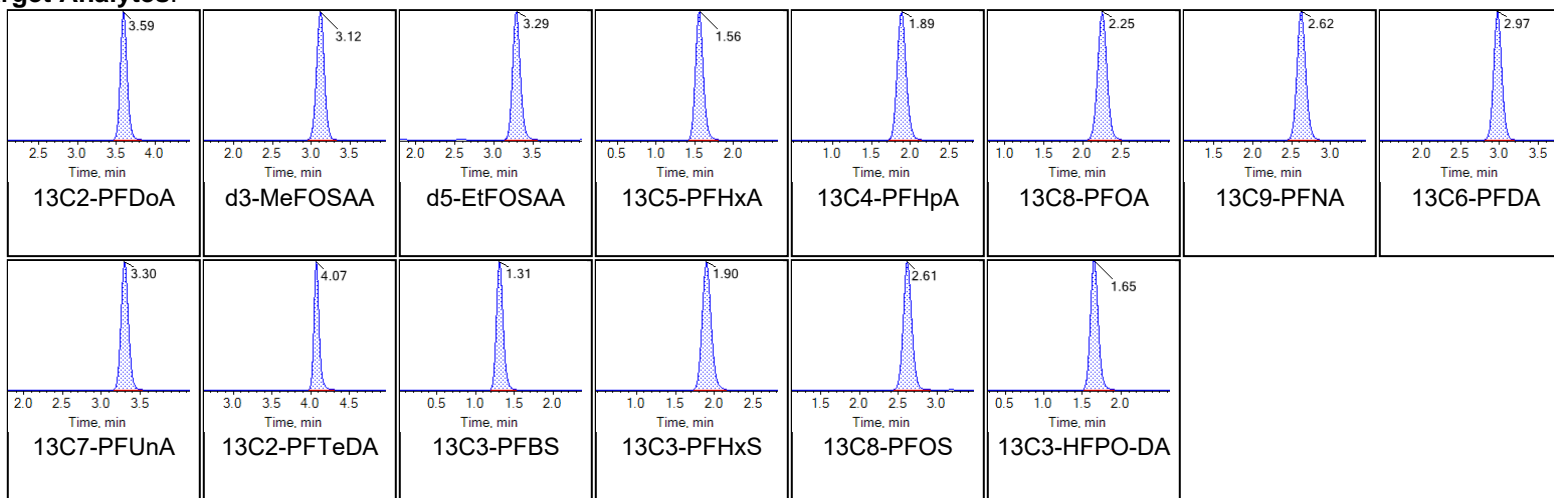
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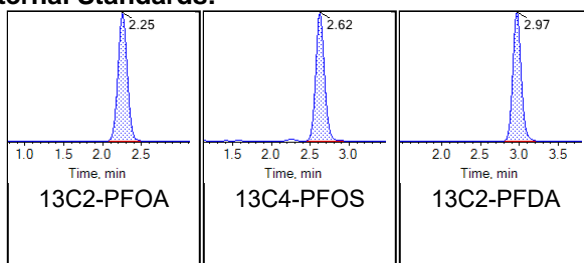
| | | | |
|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD79 | Injection Vial | 7 |
| Sample ID | L6 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:38:18 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





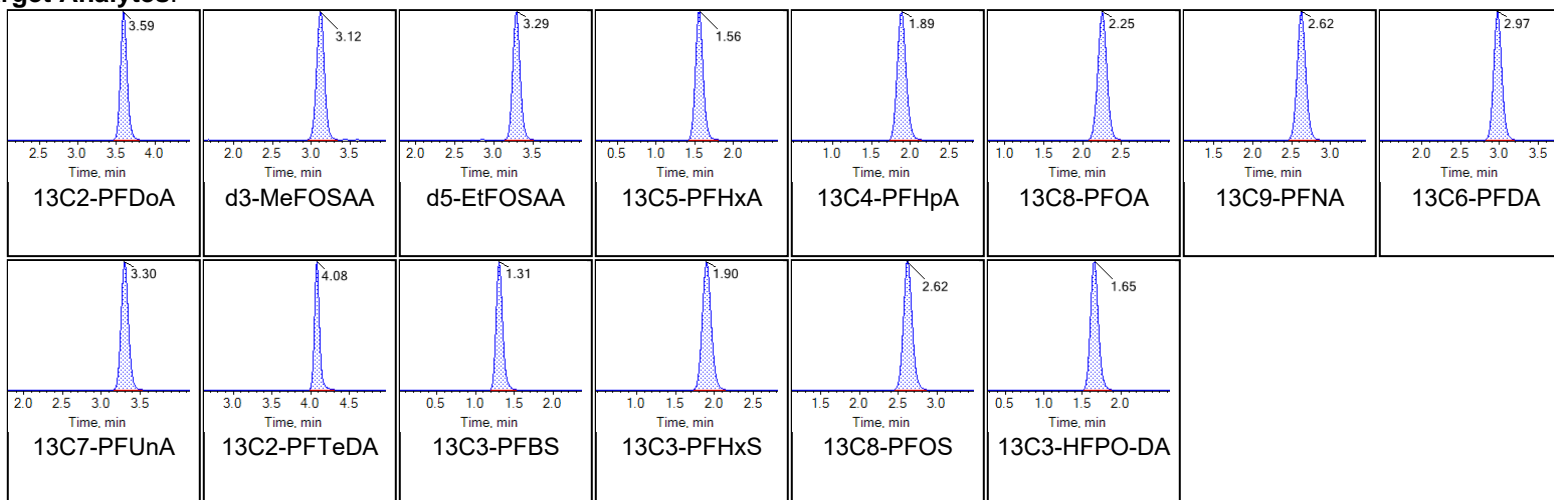
Chromatogram Report

Created with Analyst Reporter
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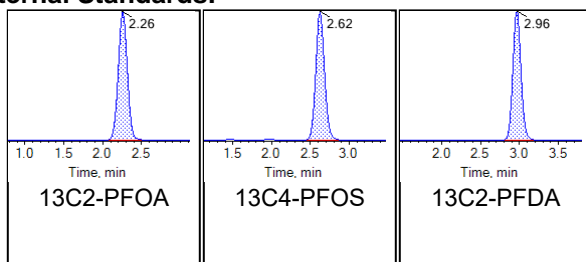
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| Sample Name | LD80 IB | Injection Vial | 8 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:48:46 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





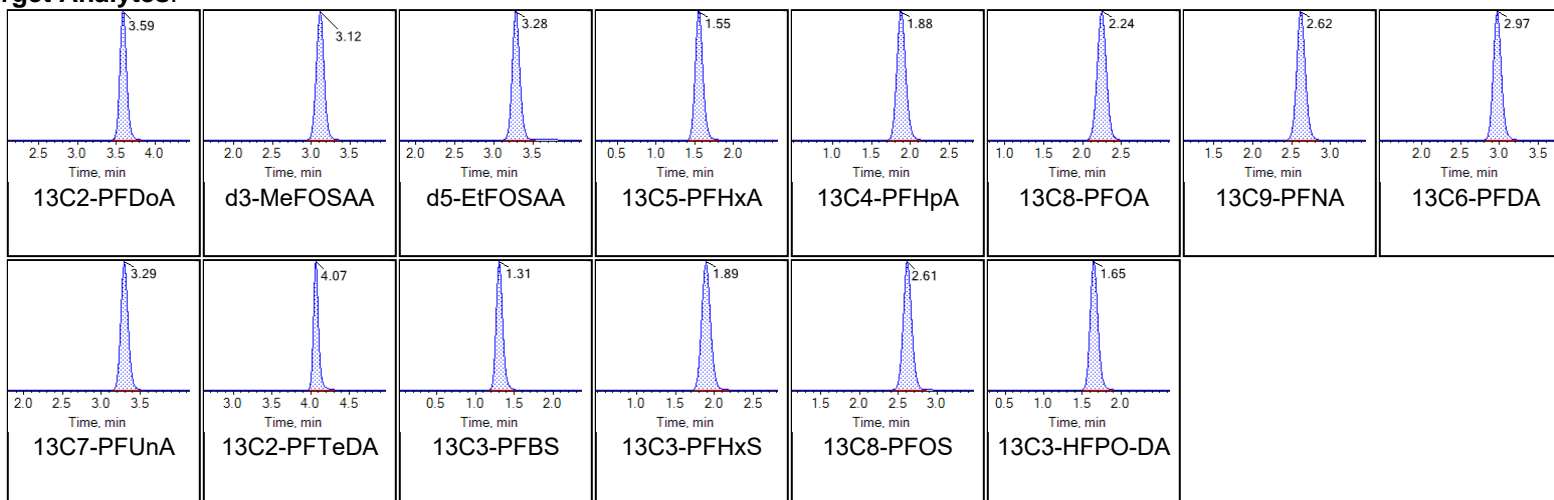
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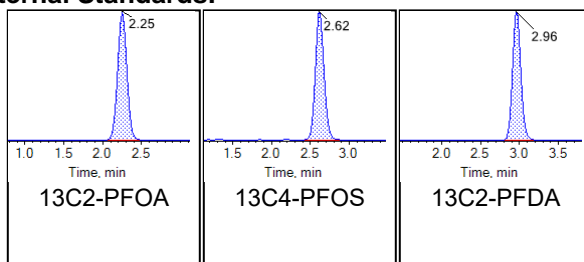
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD81 ICC | Injection Vial | 9 |
| Sample ID | ICC | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/5/2020 2:59:12 PM | Data File | AE_11052020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





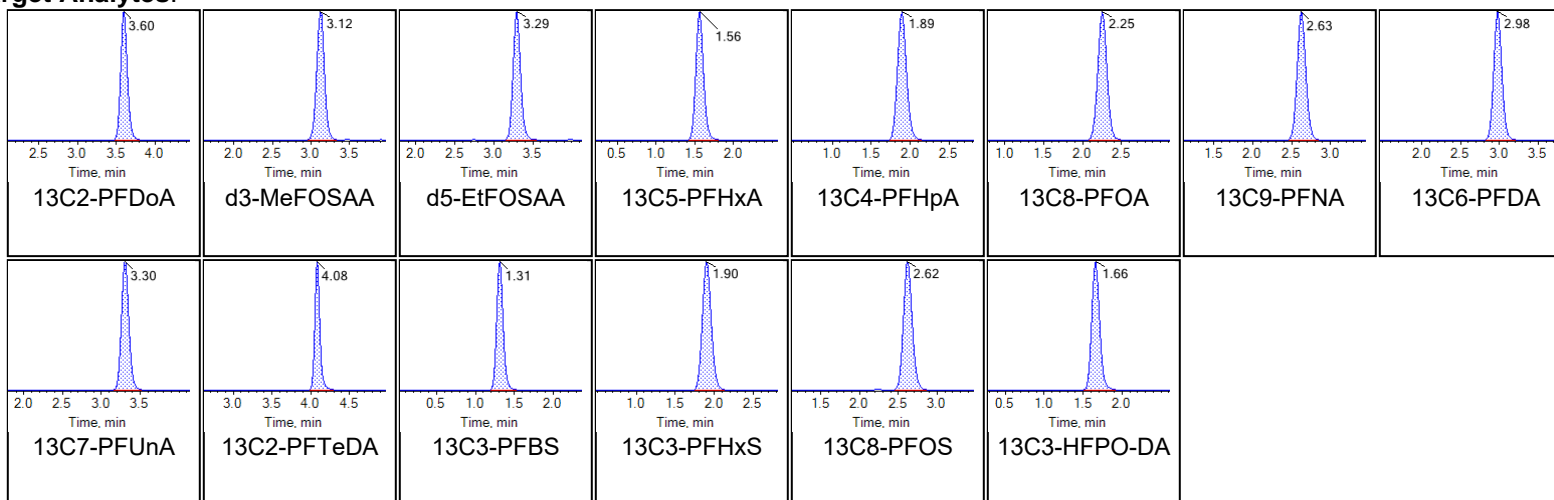
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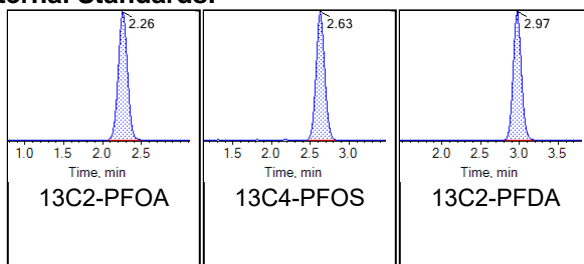
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| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 1:12:05 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





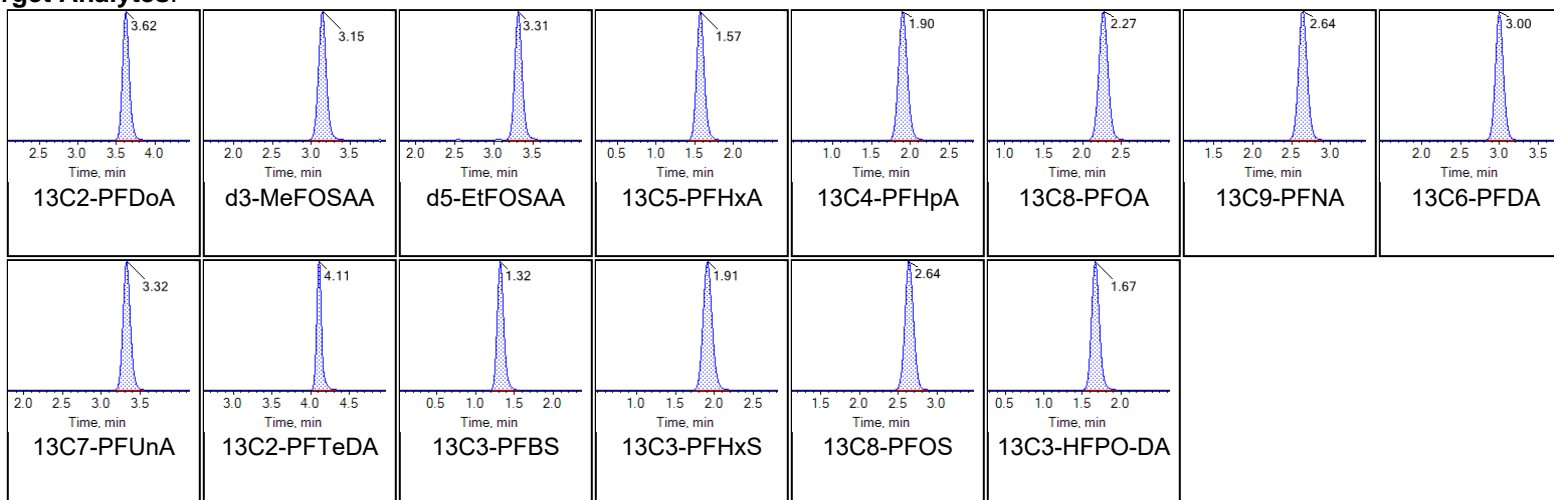
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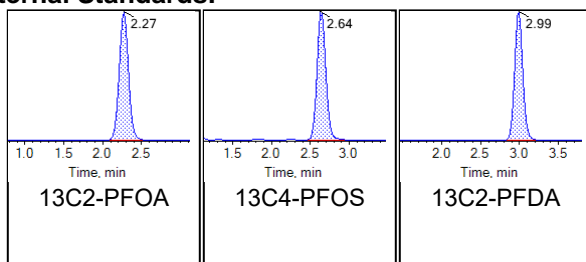
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| Sample Name | LD80 IB | Injection Vial | 4 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 1:33:00 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





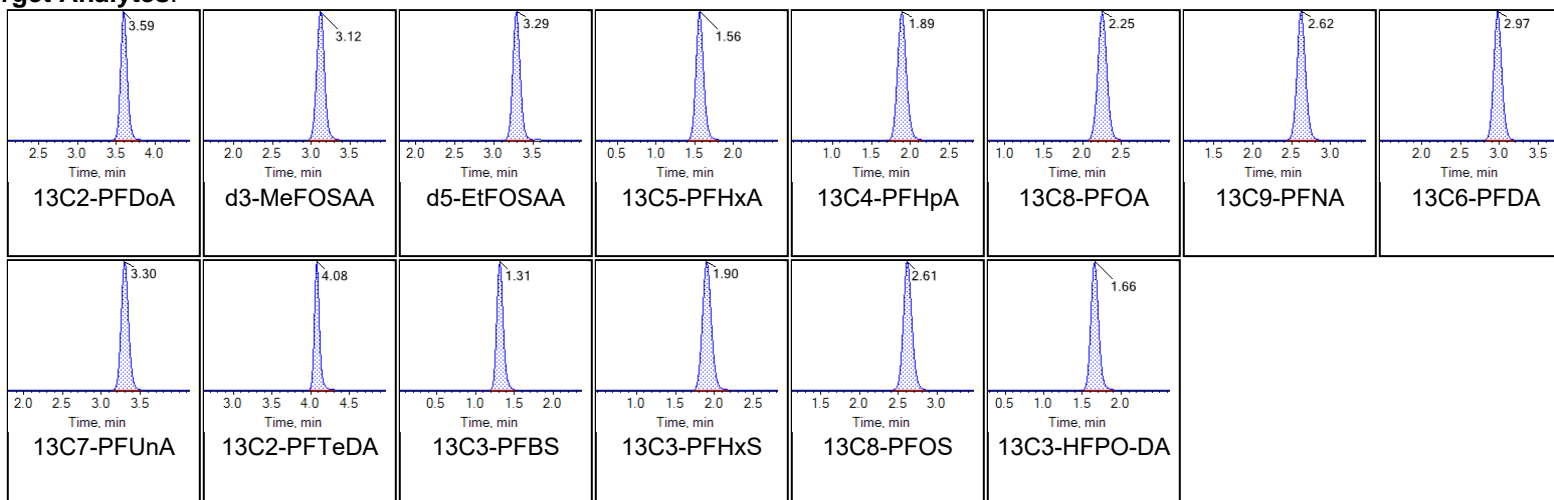
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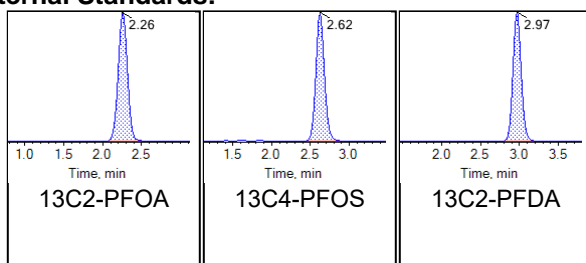
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| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:17:56 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





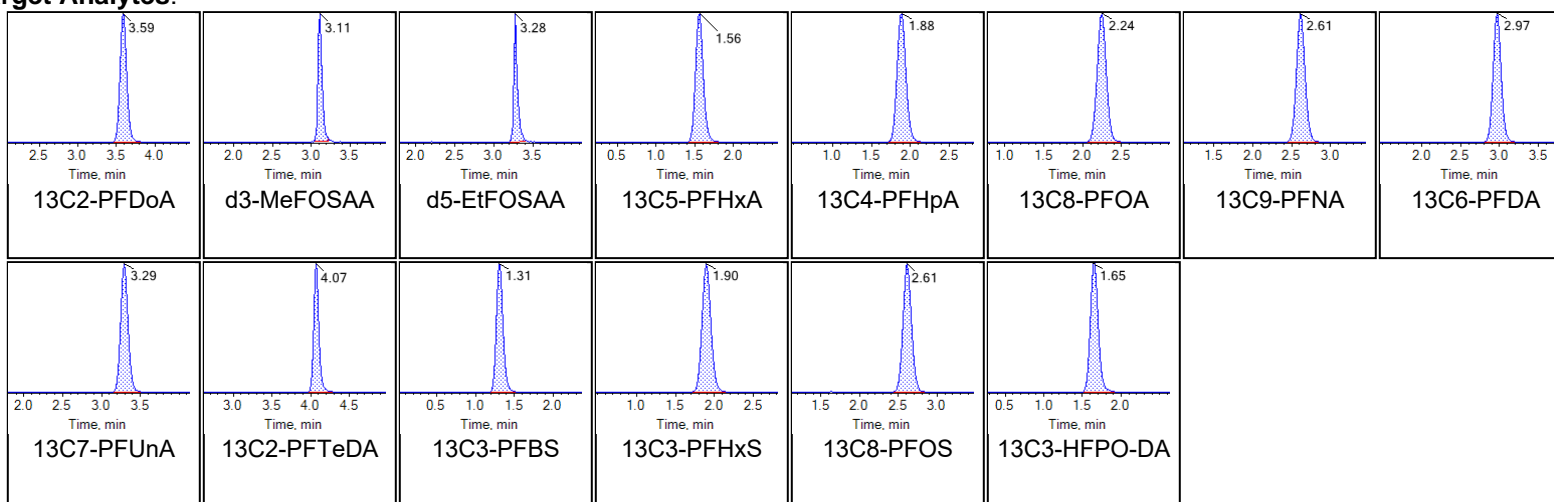
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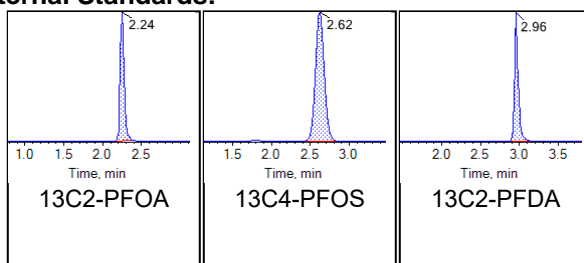
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| Sample Name | DB253PB-FS(0) | Injection Vial | 25 |
| Sample ID | Procedural Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:38:54 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





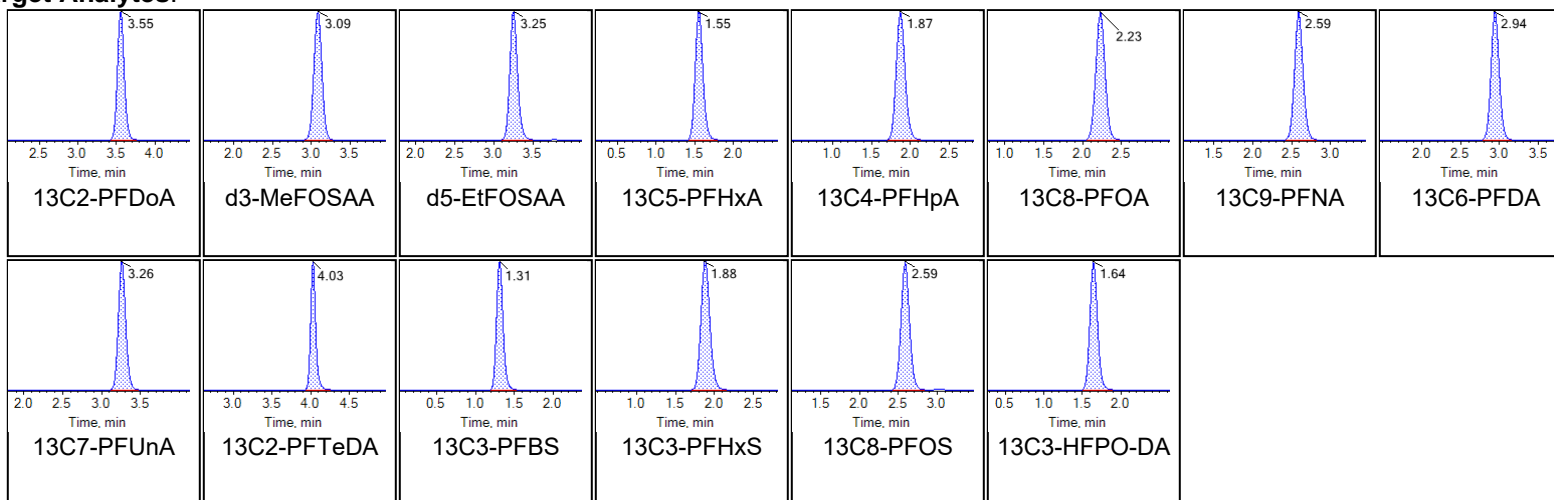
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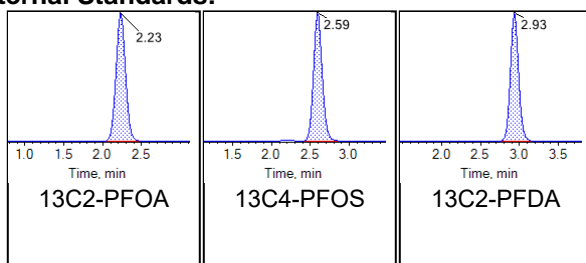
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| Sample Name | DB254LCS-FS(0) | Injection Vial | 26 |
| Sample ID | Laboratory Control Sample | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:49:21 PM | Data File | AE_11062020_5-369.wiff |
| Acquisition Method | 5-369.dam | Result Table | 20-1419_SIS |

Chromatograms

Target Analytes:



Internal Standards:





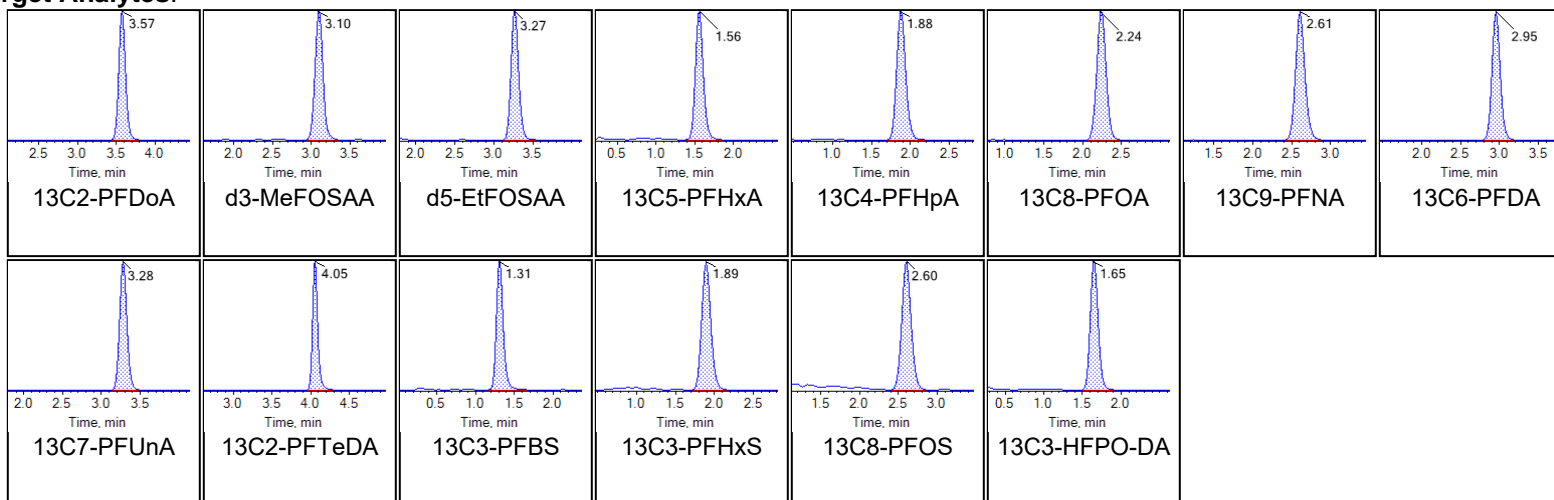
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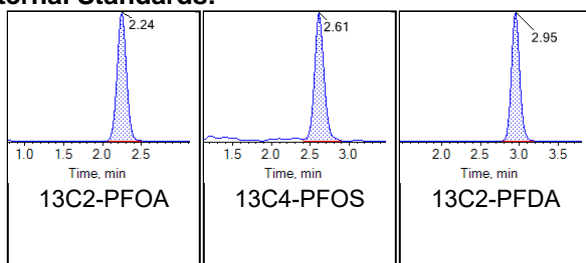
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| Sample Name | G1644-FS1(0) | Injection Vial | 27 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 10:59:49 PM | Data File | AE_11062020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





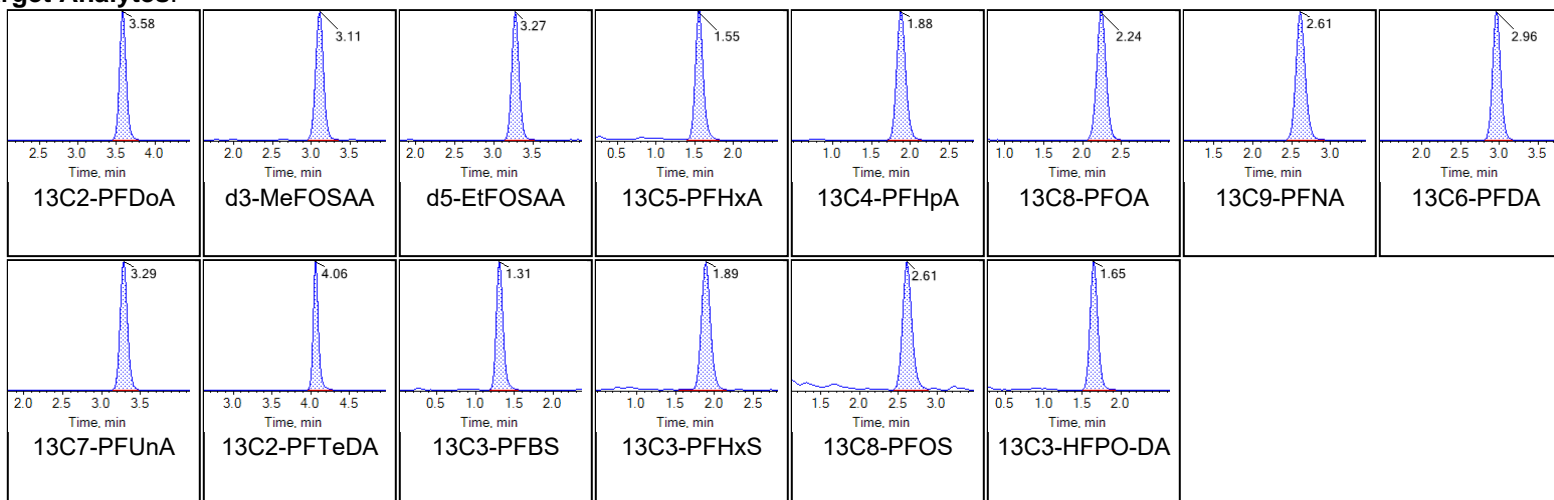
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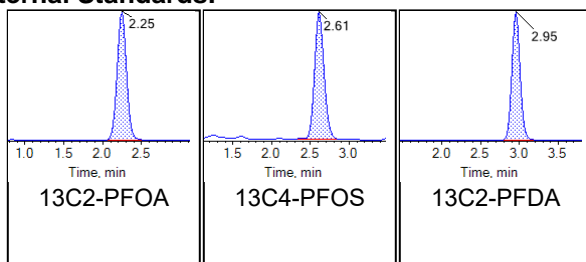
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| Sample Name | G1645-FS1(0) | Injection Vial | 28 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:10:17 PM | Data File | AE_11062020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





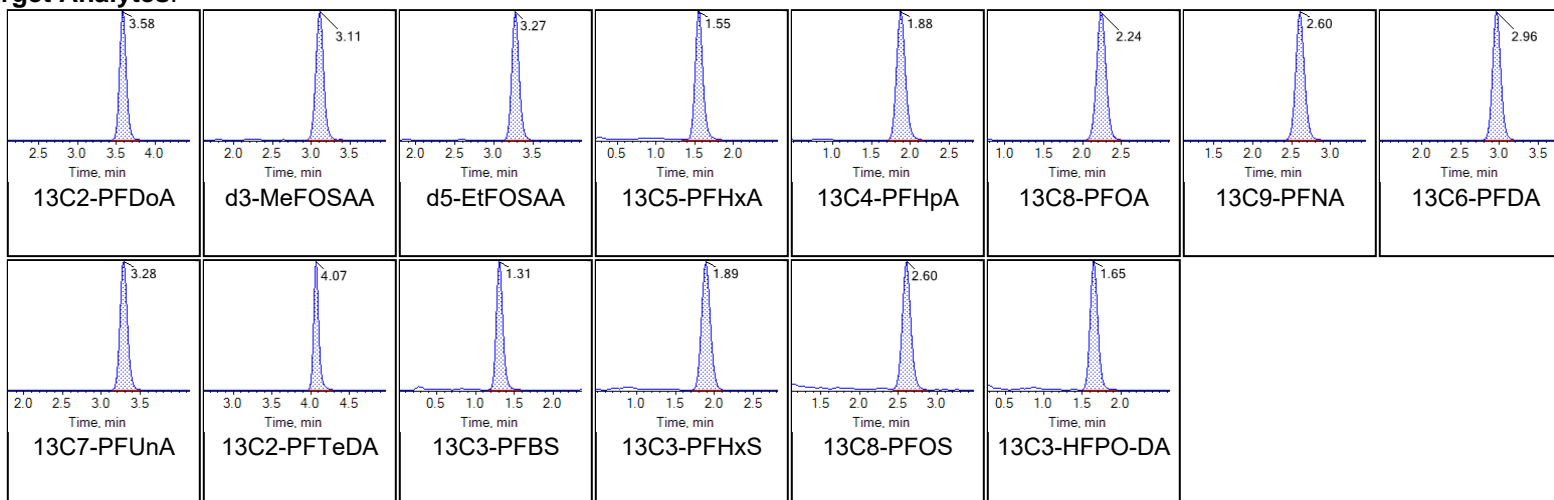
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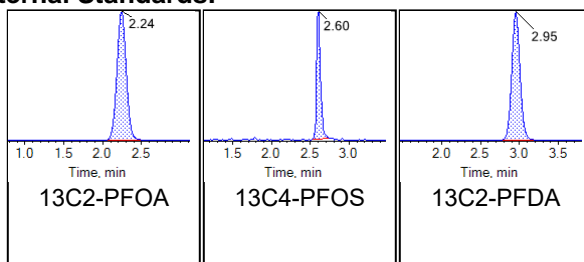
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|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1646-FS1(0) | Injection Vial | 29 |
| Sample ID | CBD-AOA-SW03-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:20:45 PM | Data File | AE_11062020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





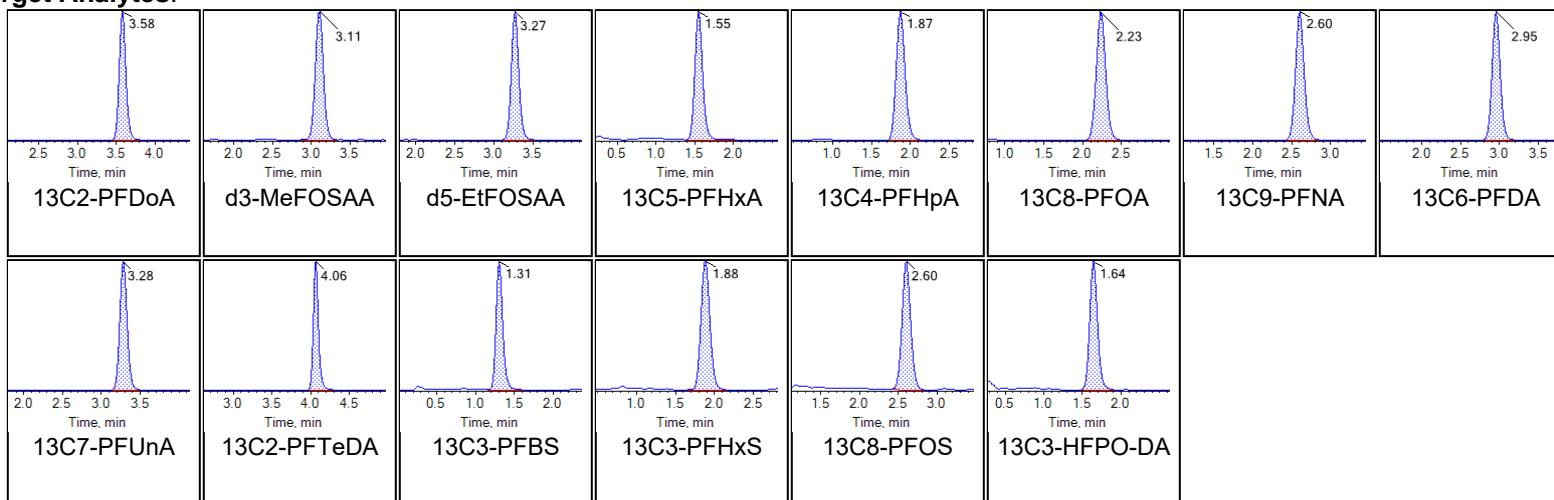
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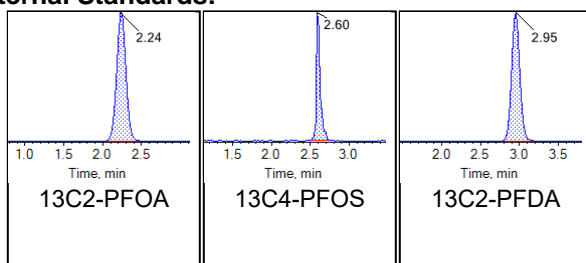
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| Sample Name | G1647-FS1(0) | Injection Vial | 30 |
| Sample ID | CBD-AOA-SW04-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:31:12 PM | Data File | AE_11062020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





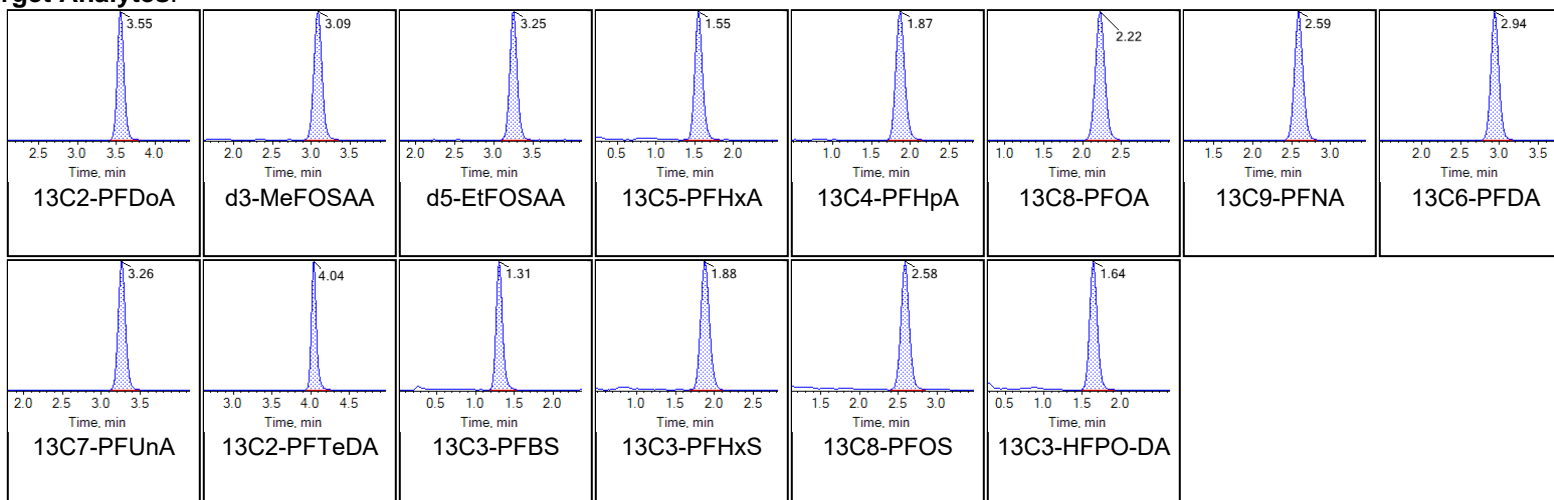
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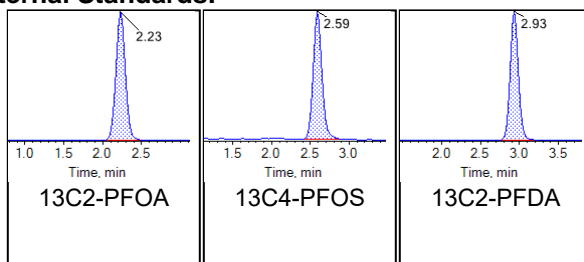
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| Sample Name | G1651-FS1(0) | Injection Vial | 31 |
| Sample ID | CBD-AOA-SW02-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
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Chromatograms

Target Analytes:



Internal Standards:





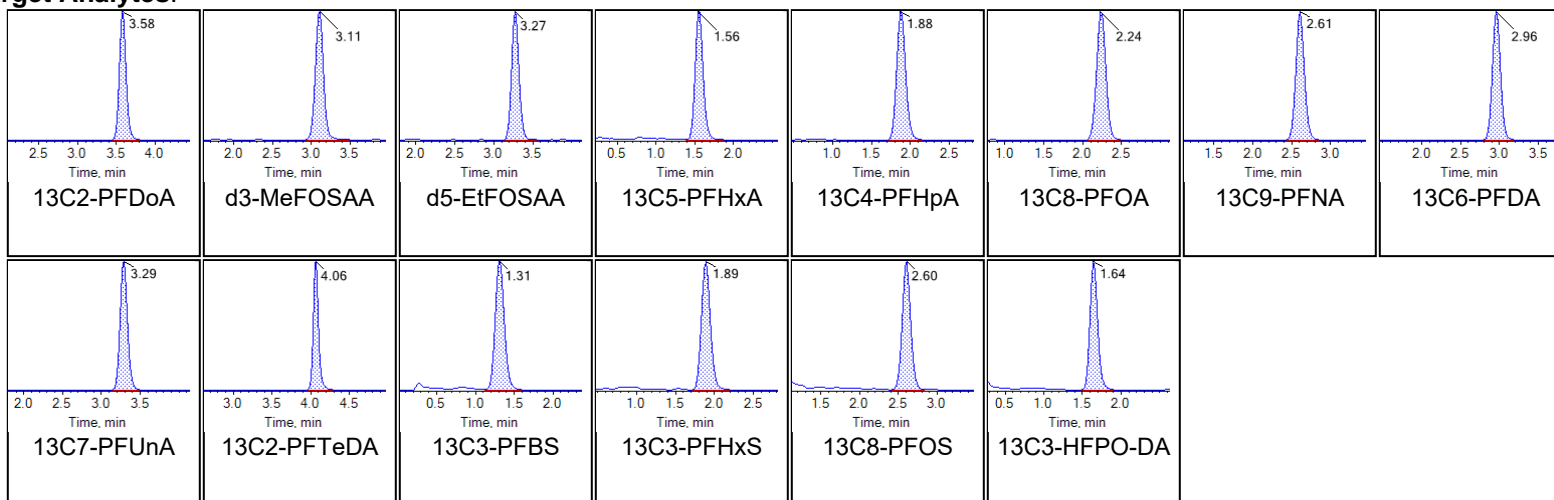
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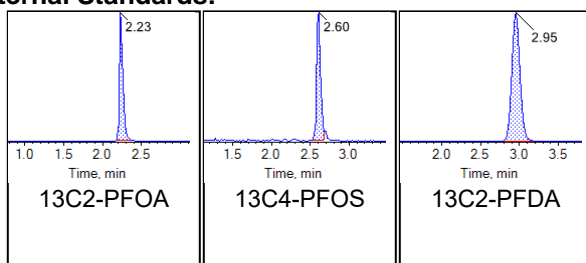
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| Sample Name | G1654-FS1(0) | Injection Vial | 32 |
| Sample ID | CBD-AOA-SW01-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/6/2020 11:52:08 PM | Data File | AE_11062020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





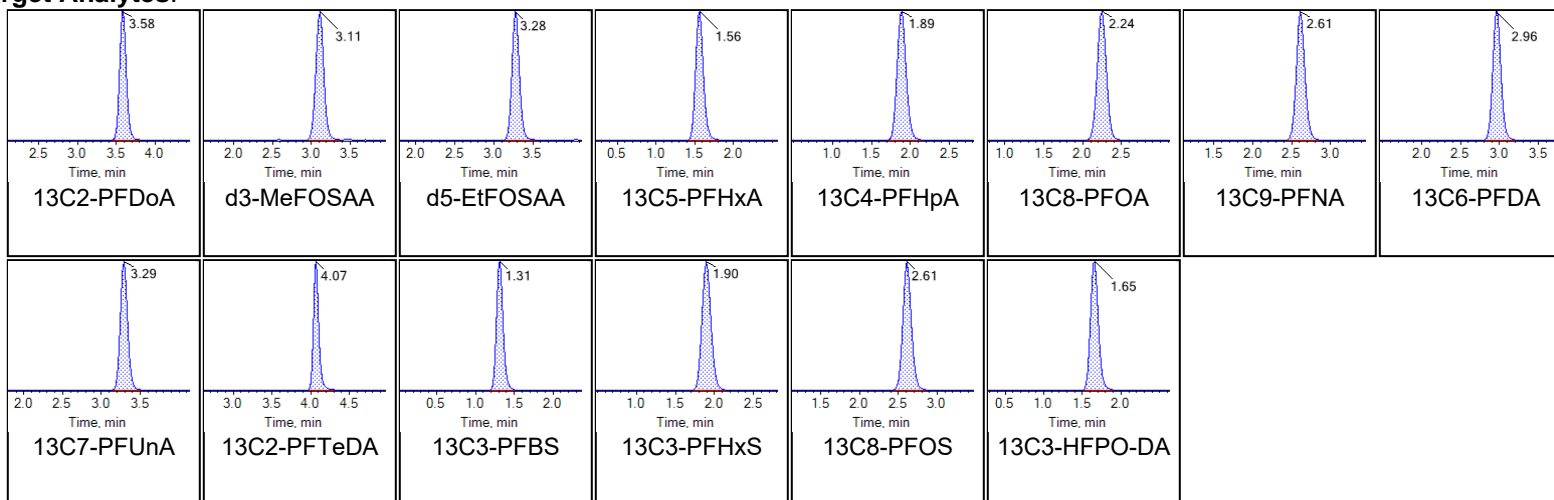
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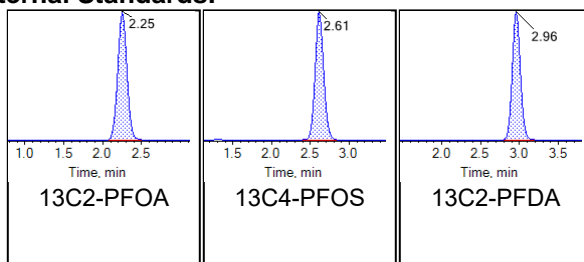
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|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 34 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:13:05 AM | Data File | AE_11062020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





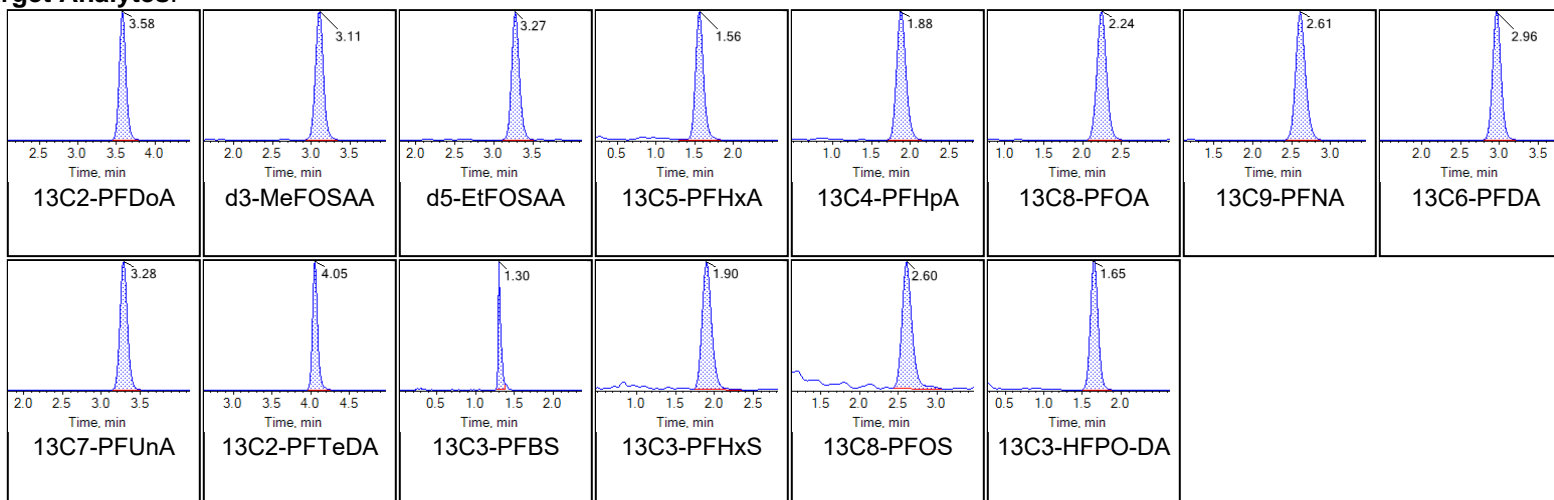
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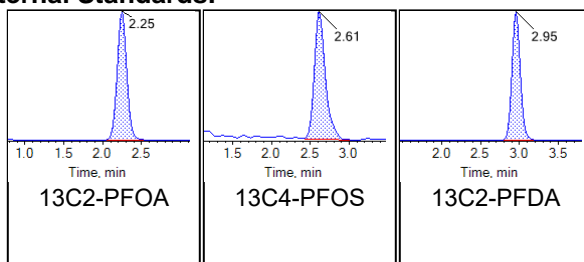
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|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1661-FS1(0) | Injection Vial | 35 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:23:35 AM | Data File | AE_11062020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





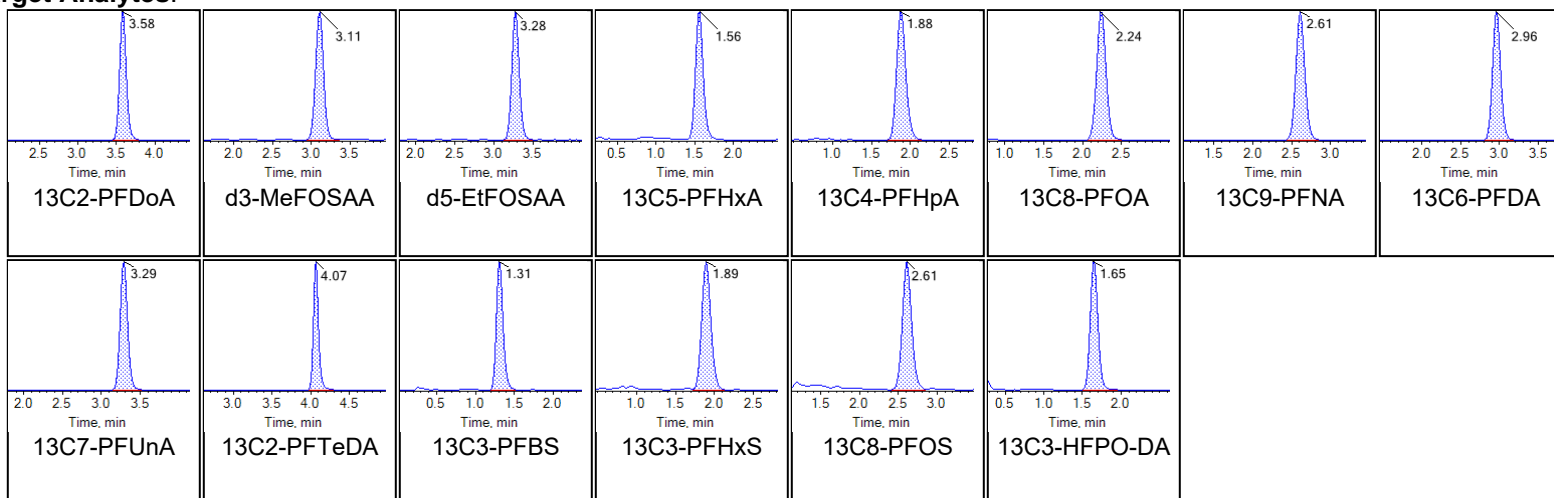
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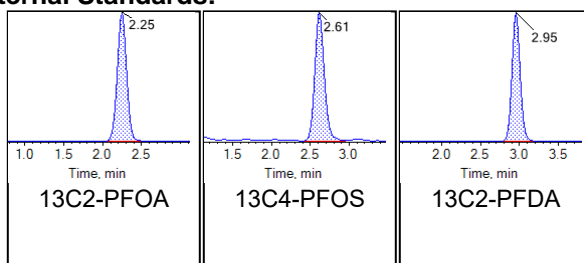
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|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1668-FS1(0) | Injection Vial | 36 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/7/2020 12:34:03 AM | Data File | AE_11062020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





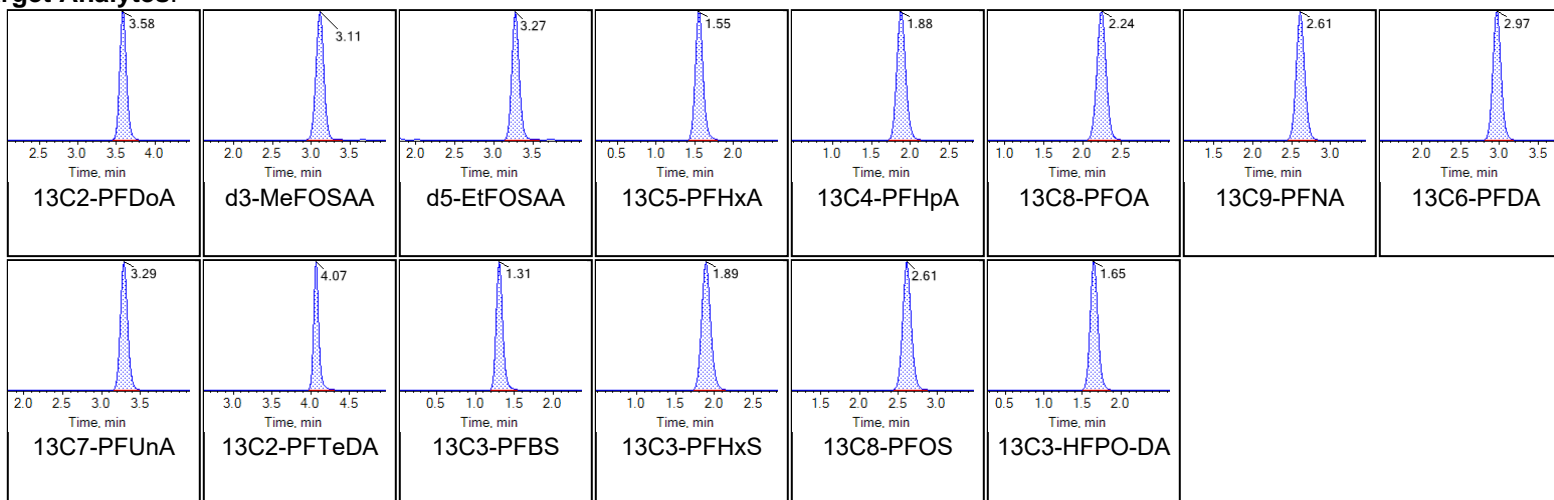
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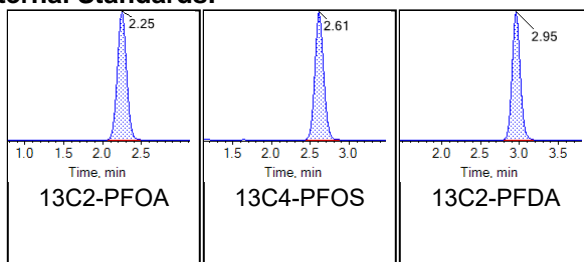
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| Sample Name | LD76 CCV | Injection Vial | 38 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
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Chromatograms

Target Analytes:



Internal Standards:





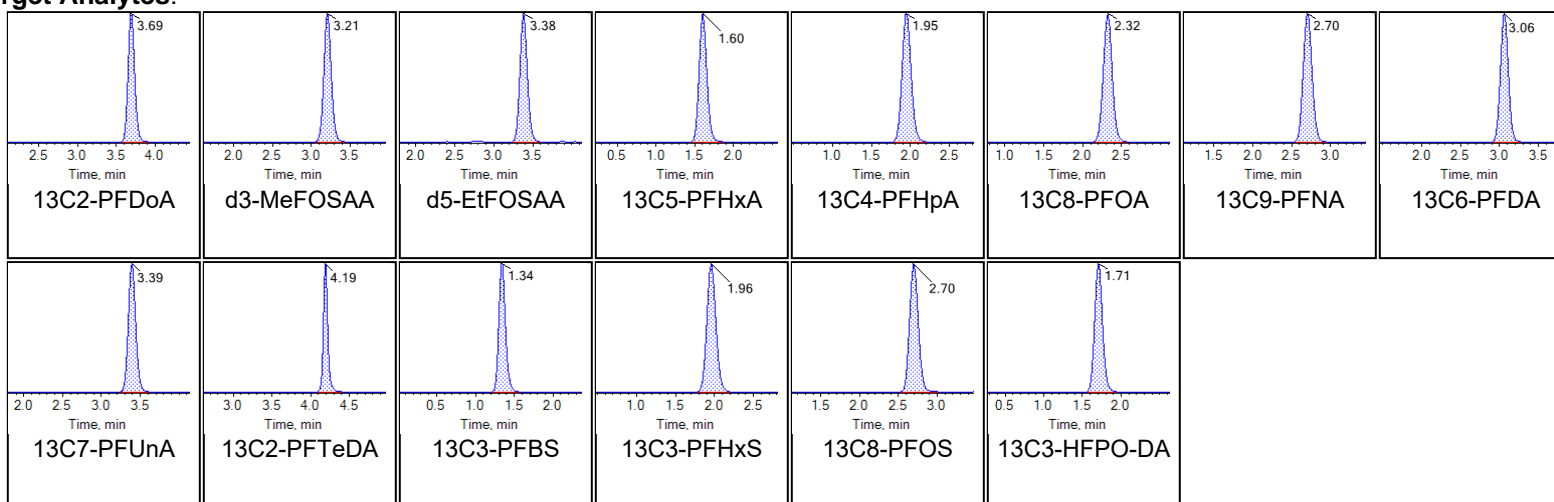
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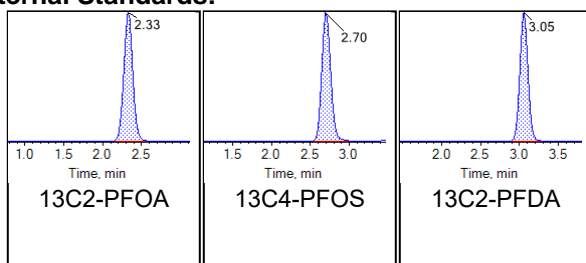
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| Sample Name | LD76 CCV | Injection Vial | 2 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
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Chromatograms

Target Analytes:



Internal Standards:





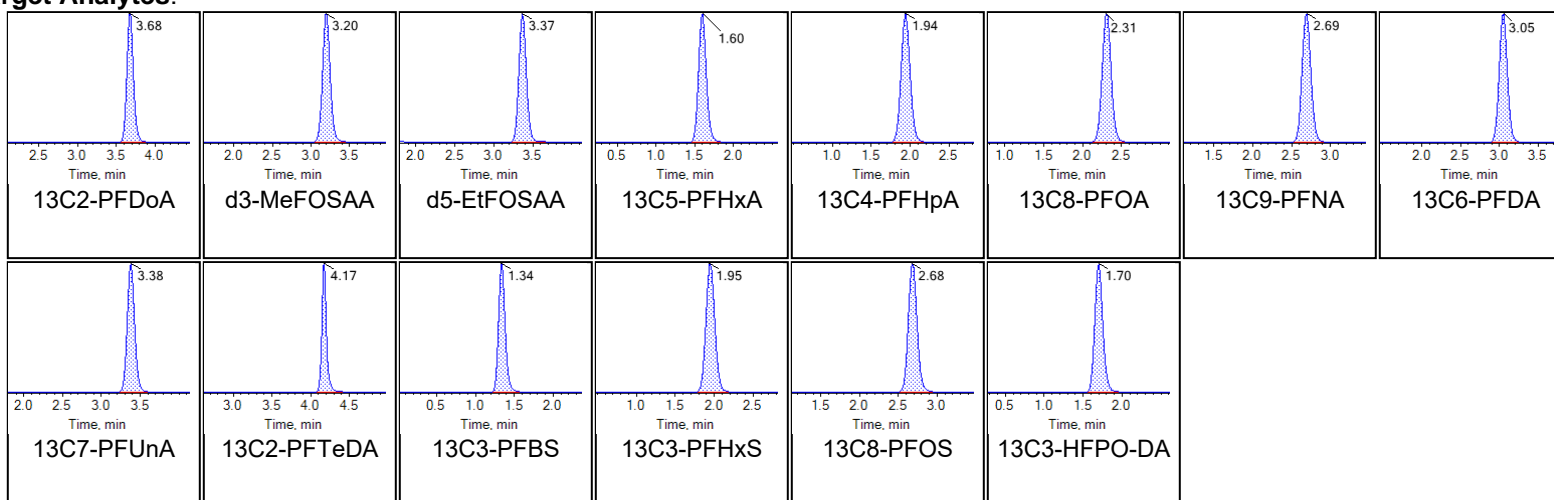
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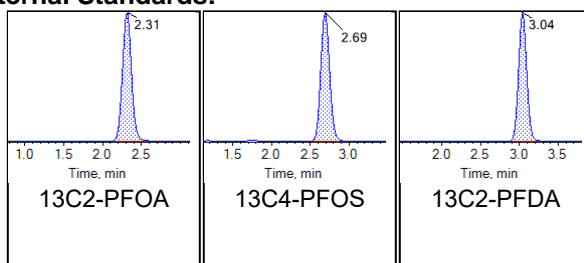
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD80 IB | Injection Vial | 4 |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
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Chromatograms

Target Analytes:



Internal Standards:





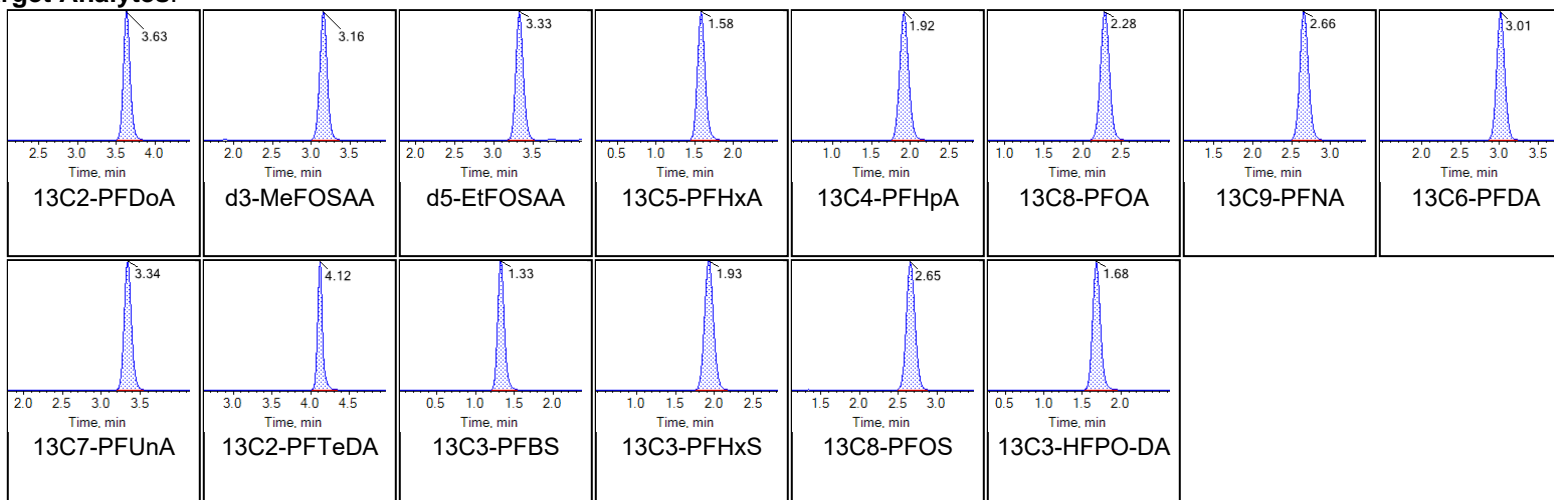
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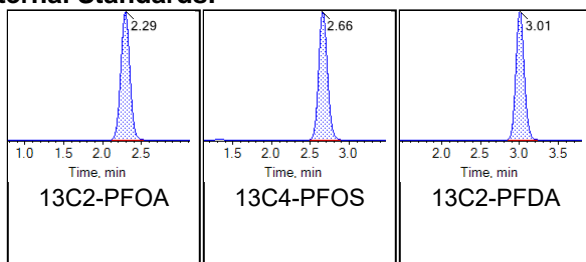
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| Sample Name | LD76 CCV | Injection Vial | 6 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
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Chromatograms

Target Analytes:



Internal Standards:





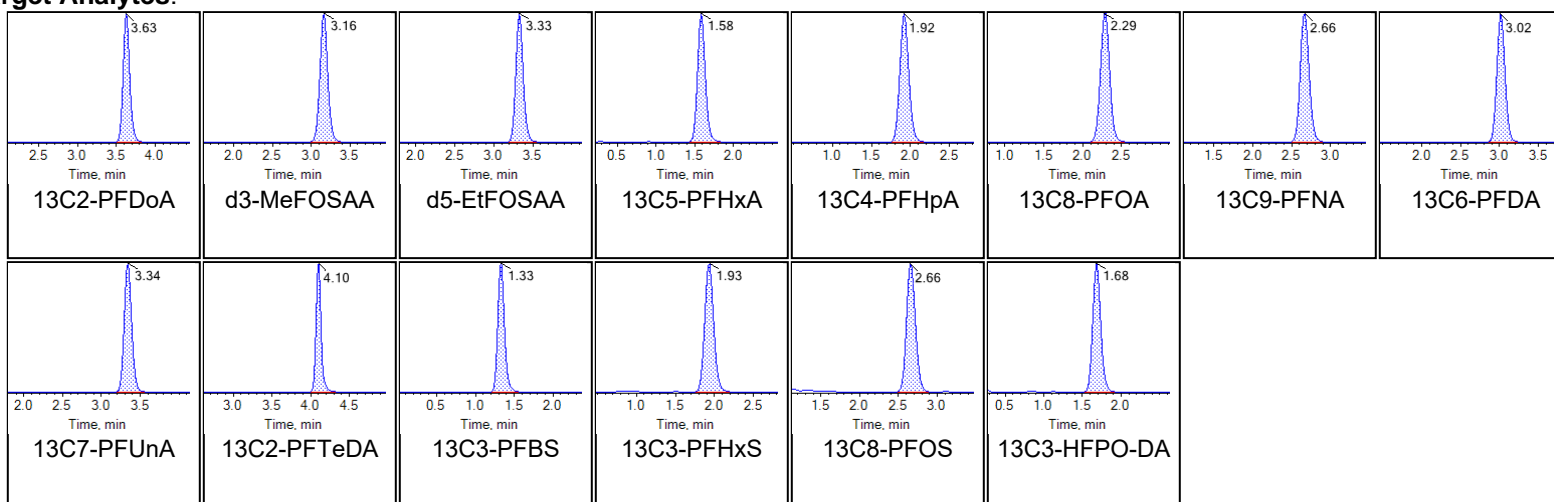
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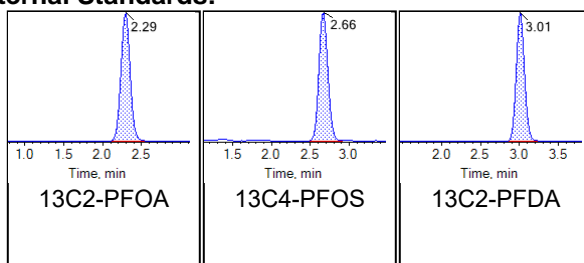
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|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1644-FS1-D(3) | Injection Vial | 7 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
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Chromatograms

Target Analytes:



Internal Standards:





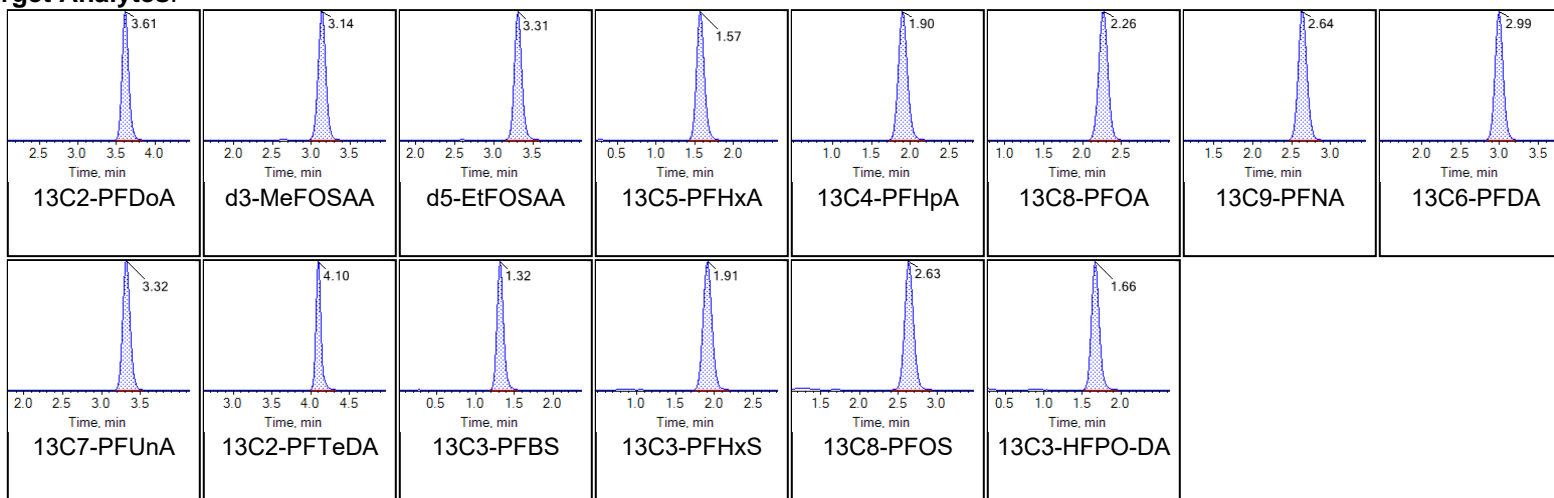
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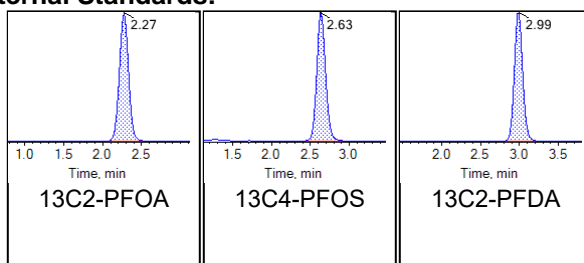
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|---------------------------|-----------------------|-------------------------|----------------------------|
| Sample Name | G1645-FS1-D(3) | Injection Vial | 9 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 12:55:01 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





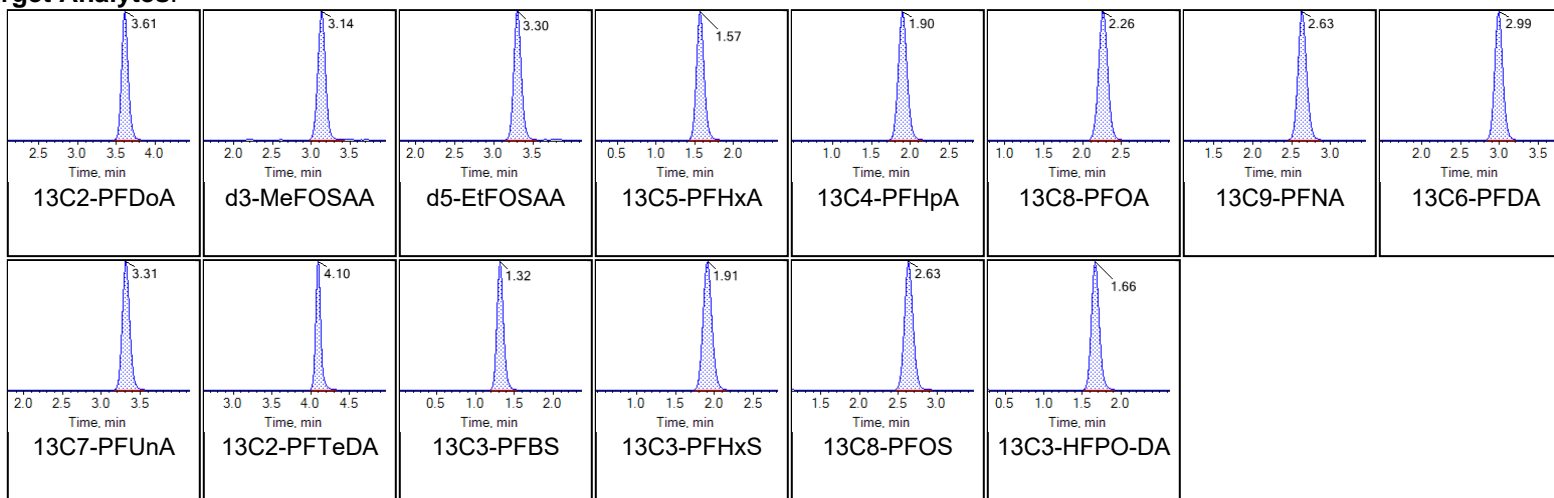
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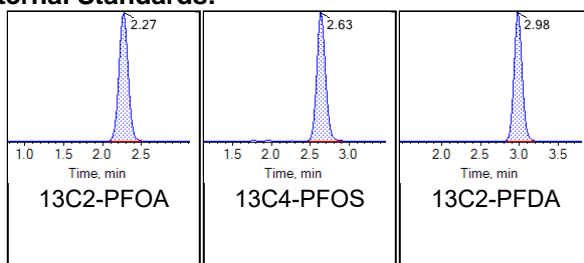
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| Sample Name | G1645-FS1-D(7) | Injection Vial | 11 |
| Sample ID | CBD-AOA-SW05-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
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Chromatograms

Target Analytes:



Internal Standards:





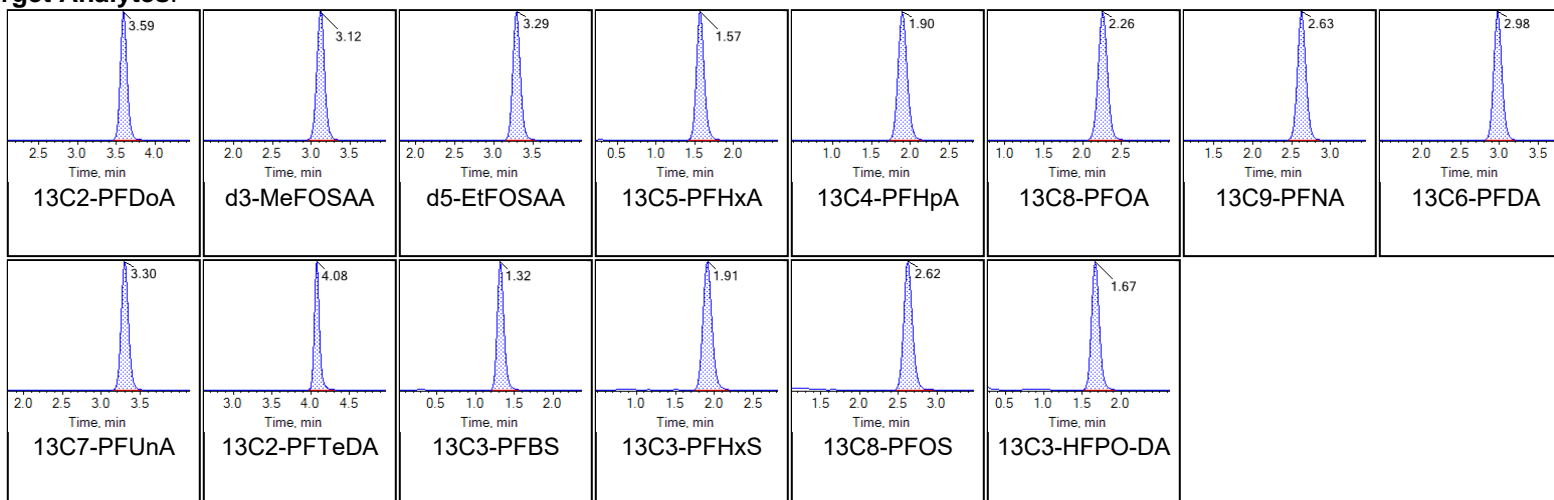
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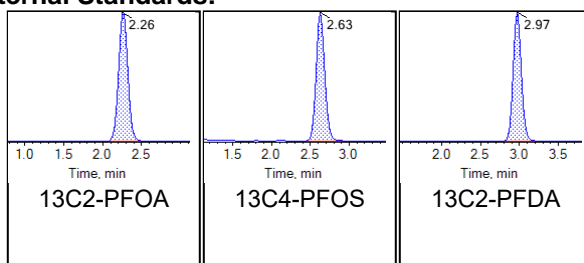
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1646-FS1-D(3) | Injection Vial | 12 |
| Sample ID | CBD-AOA-SW03-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:26:46 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





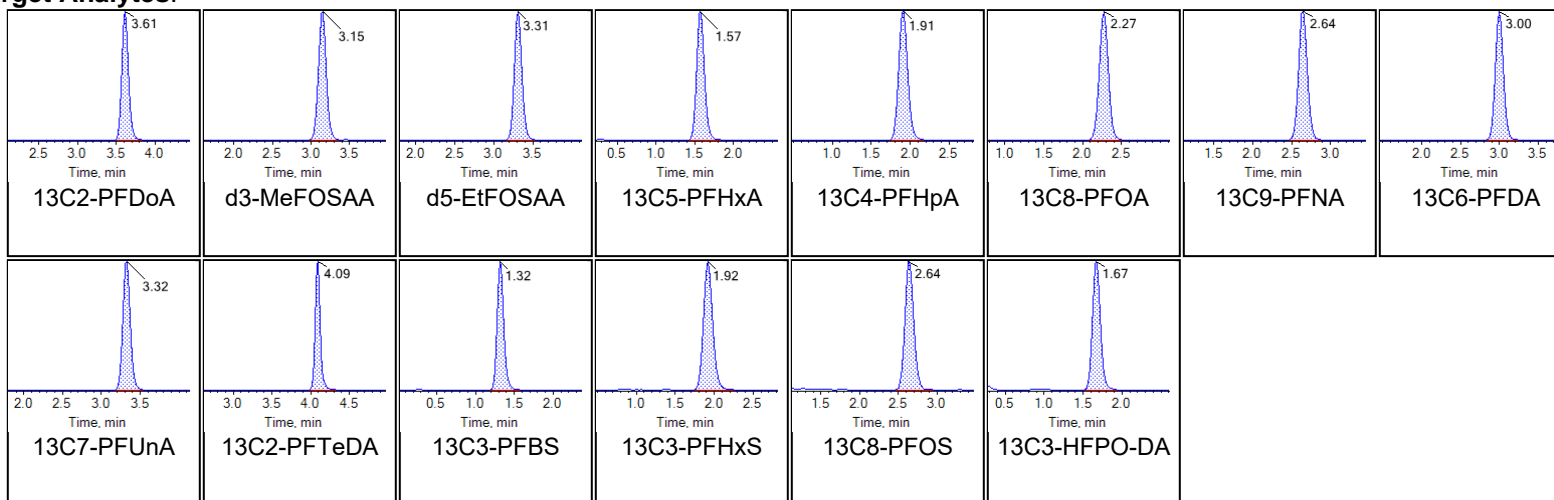
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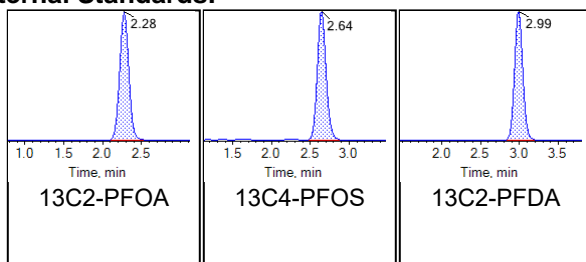
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| Sample Name | G1647-FS1-D(3) | Injection Vial | 13 |
| Sample ID | CBD-AOA-SW04-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:37:13 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





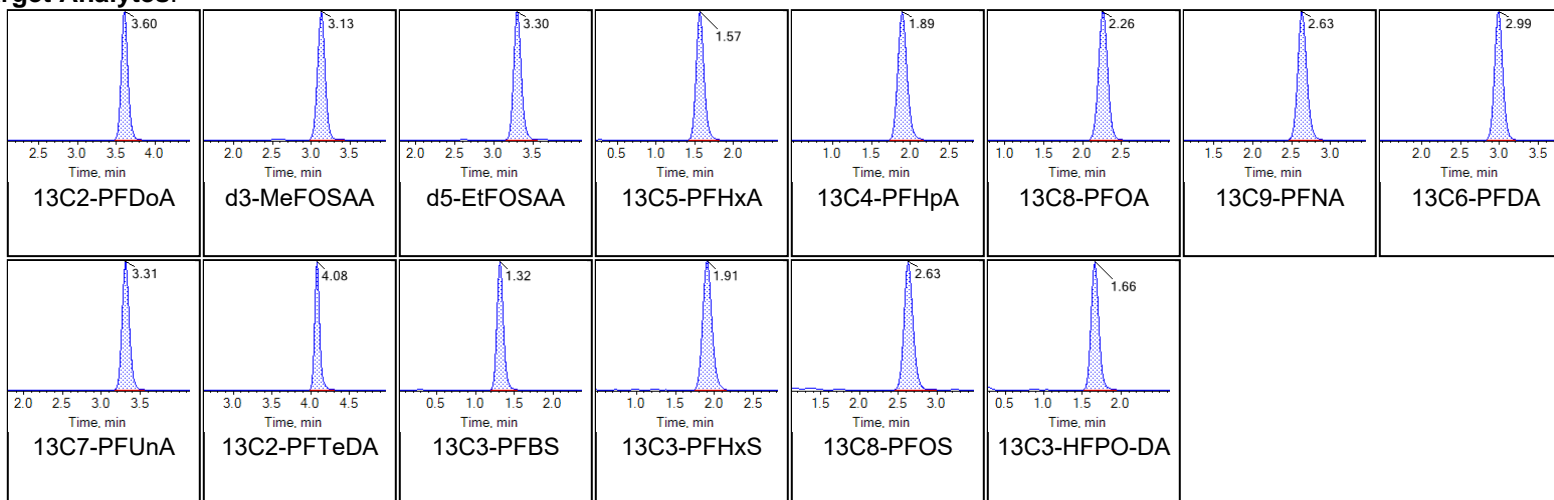
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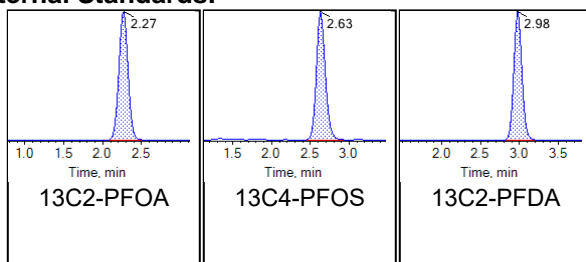
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| Sample Name | G1661-FS1-D(3) | Injection Vial | 14 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 1:47:41 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





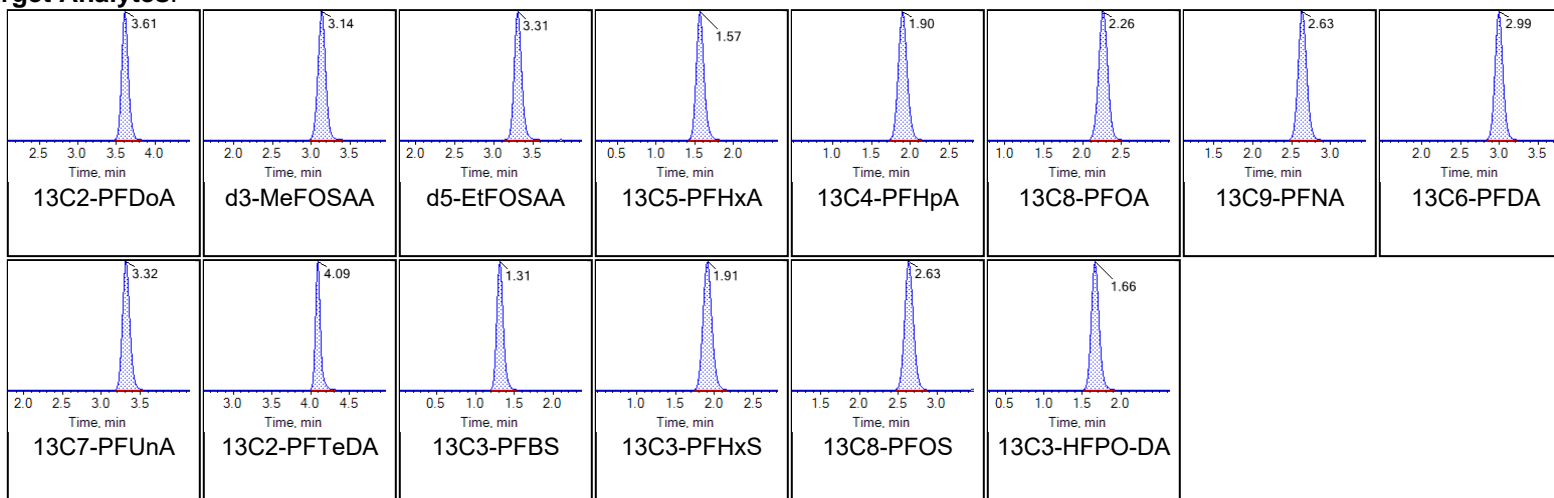
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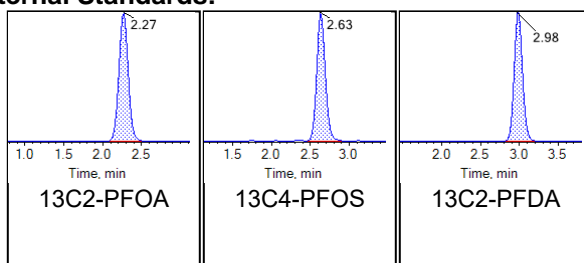
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 16 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:08:37 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





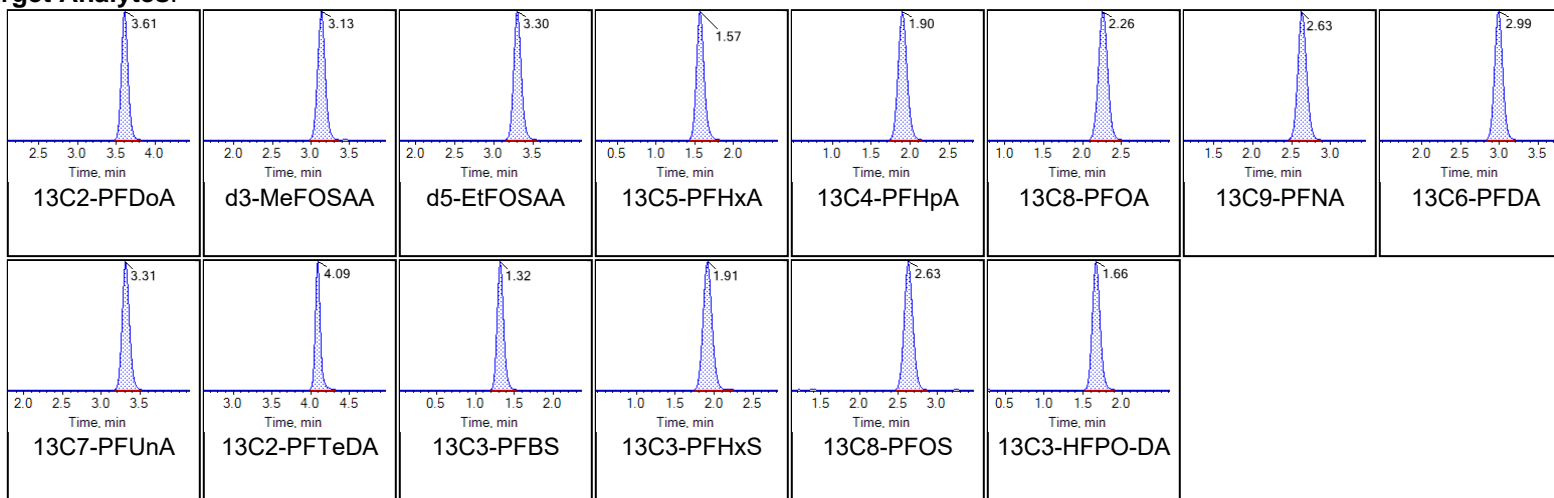
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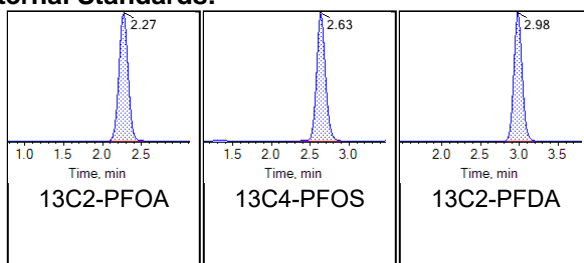
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1661-FS1-D(5) | Injection Vial | 17 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:19:06 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





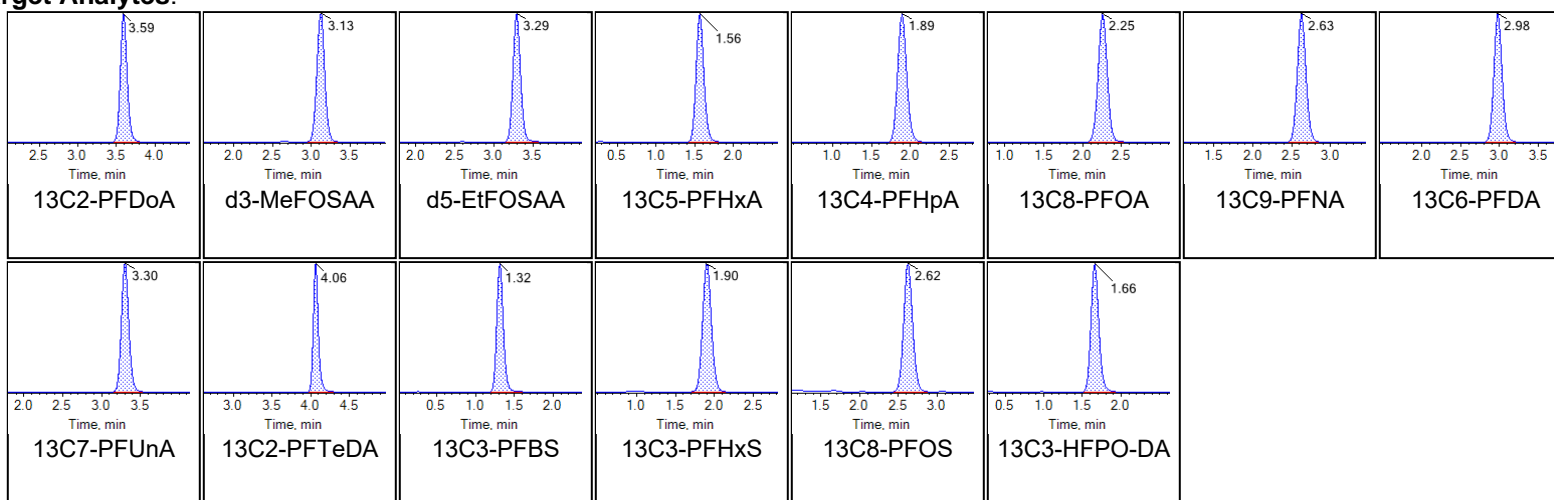
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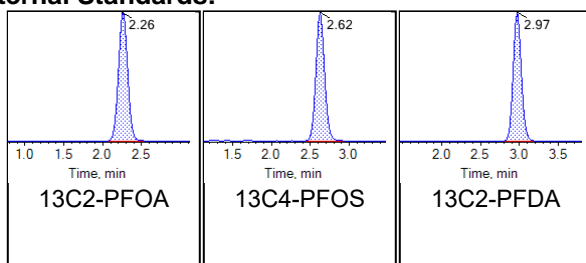
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1668-FS1-D(3) | Injection Vial | 19 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 2:40:03 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





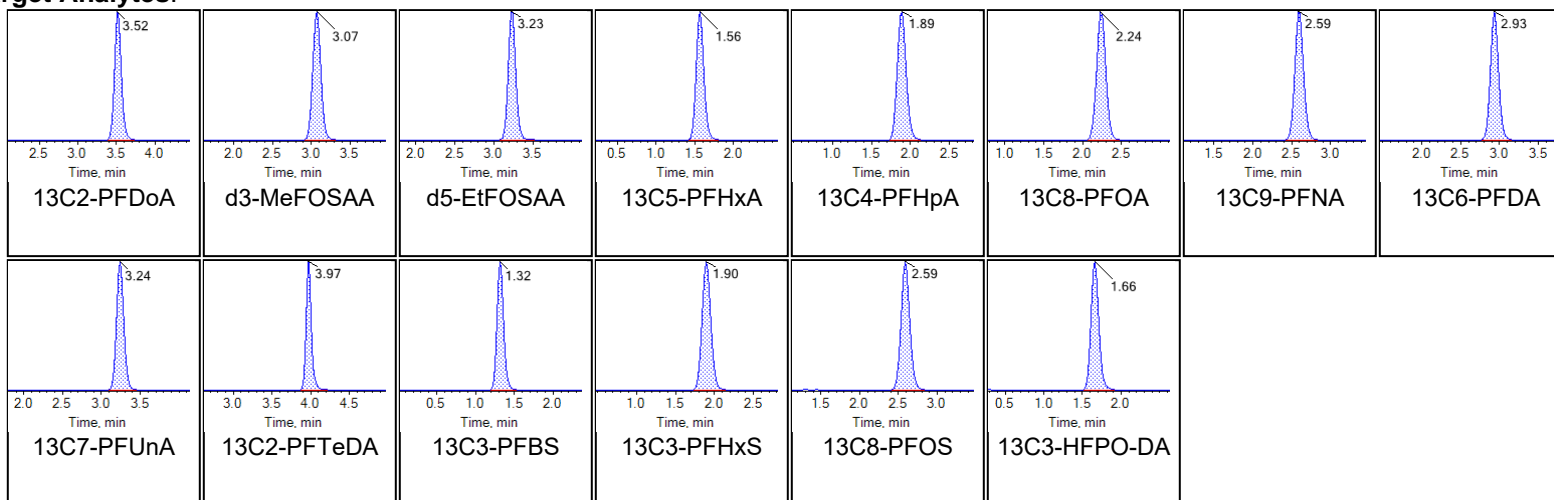
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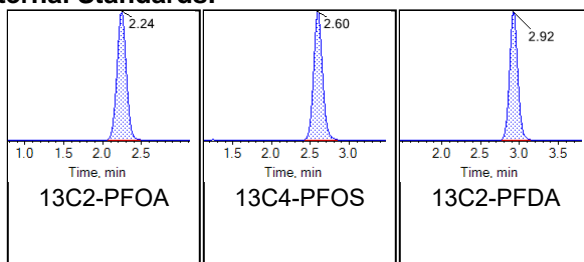
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1668-FS1-D(5) | Injection Vial | 20 |
| Sample ID | CBD-AOA-SW09-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
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Chromatograms

Target Analytes:



Internal Standards:





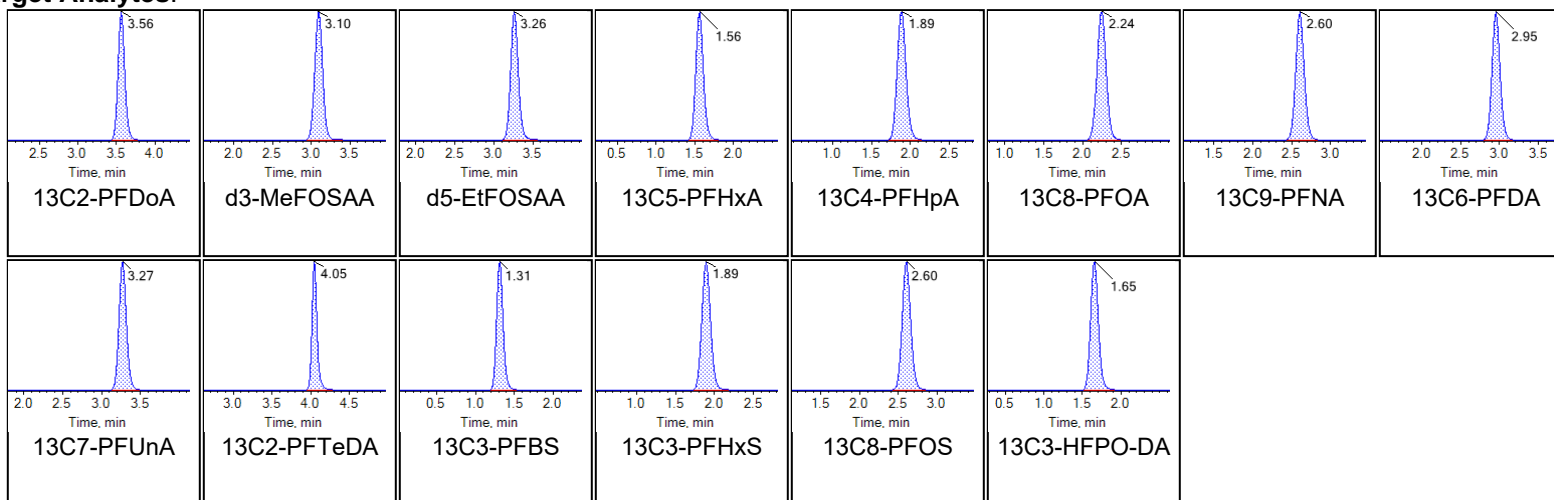
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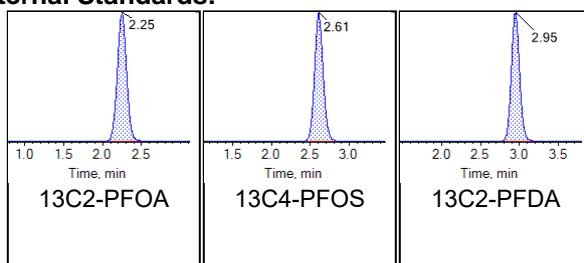
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 23 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 3:21:53 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





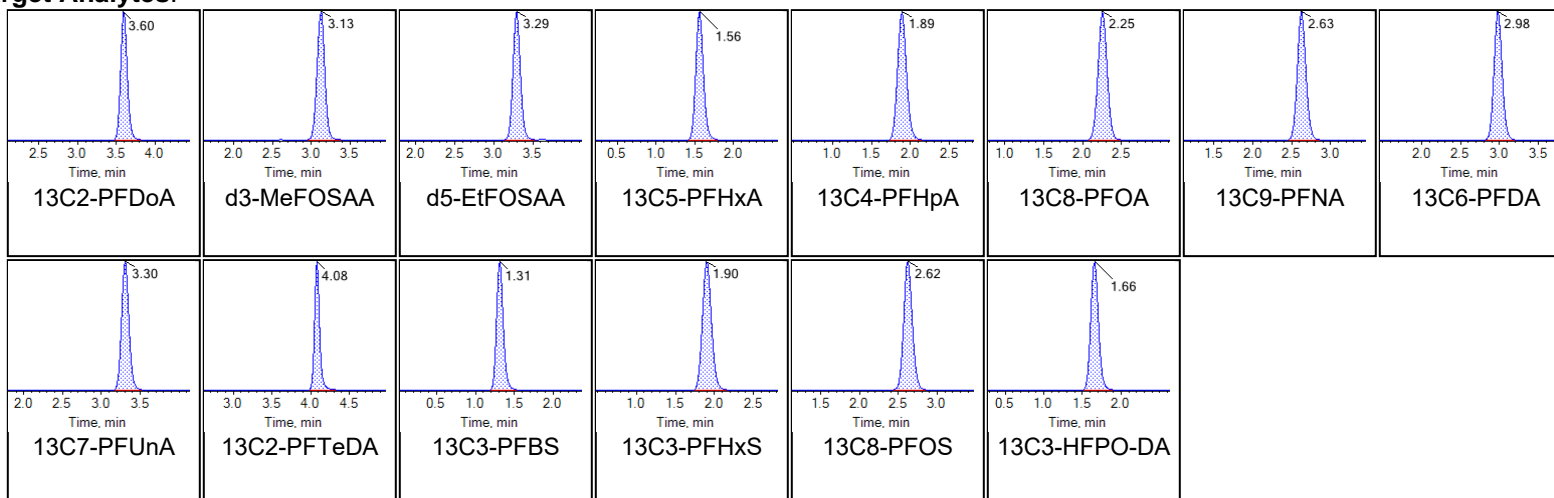
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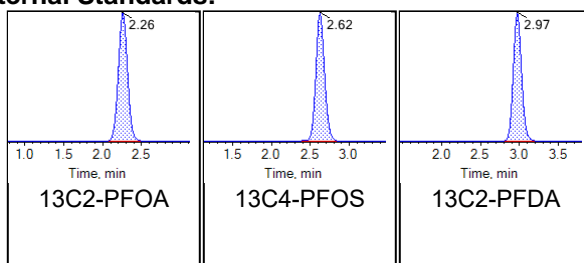
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD77 CCV | Injection Vial | 10 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 5:06:36 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





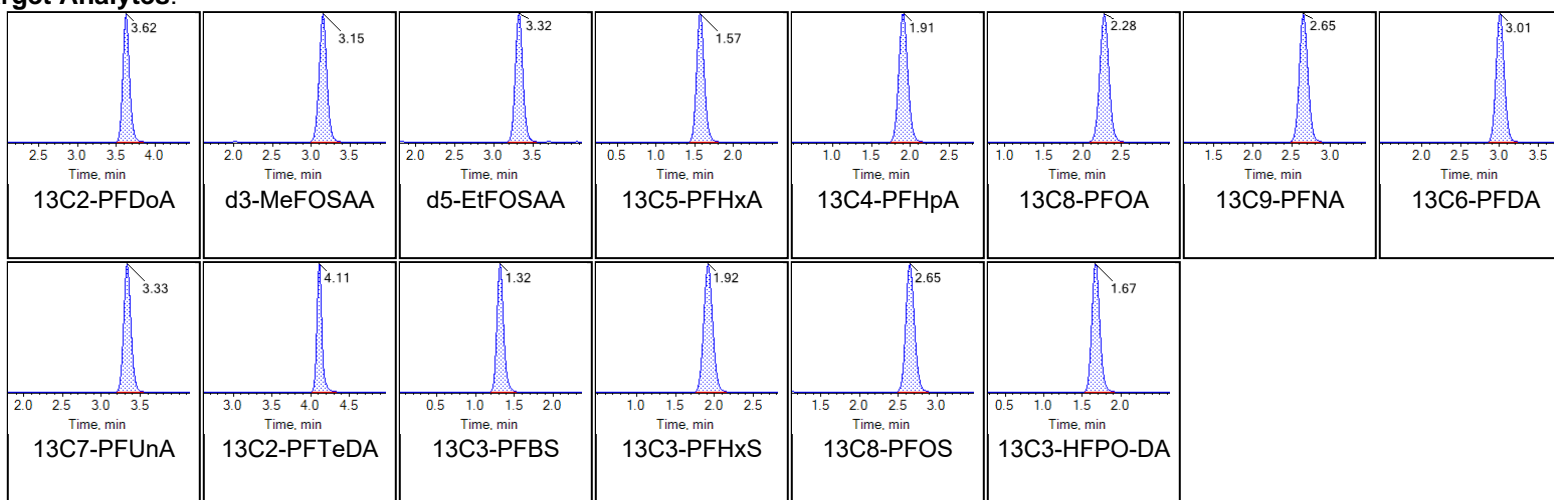
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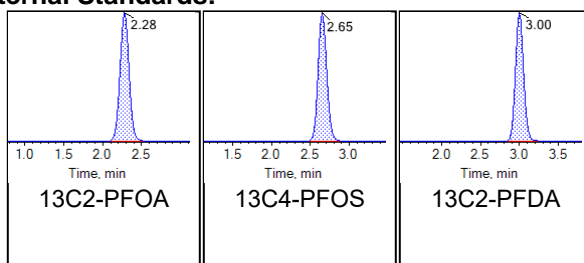
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1644-FS1-D(7) | Injection Vial | 2 |
| Sample ID | CBD-AOA-SW07-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 5:58:41 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





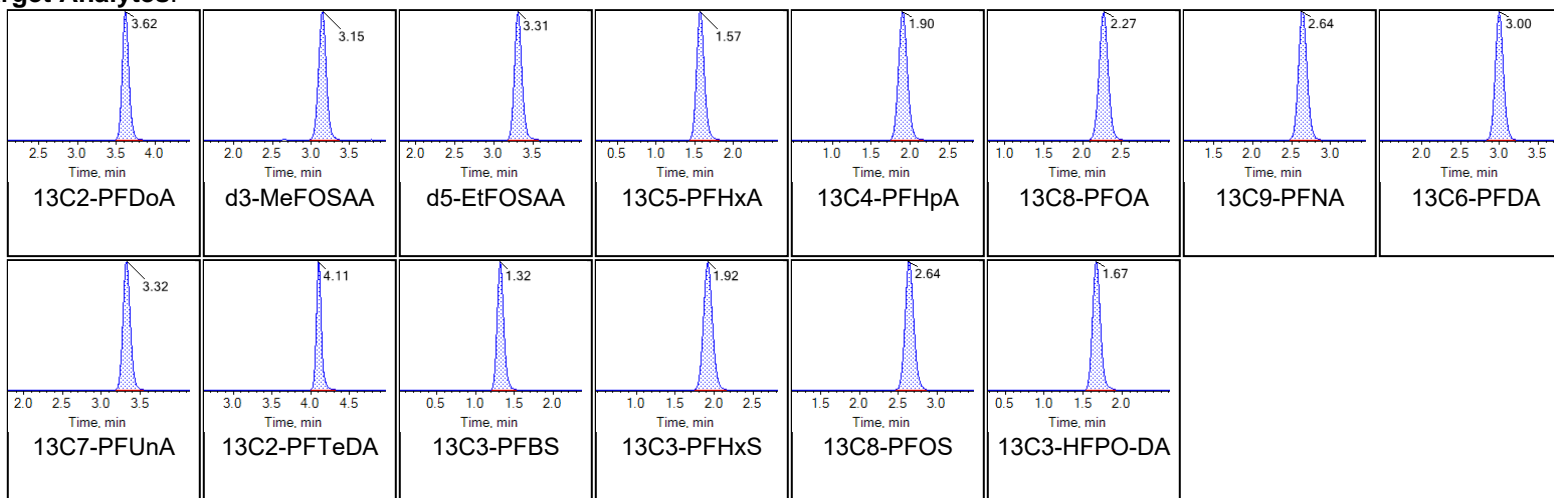
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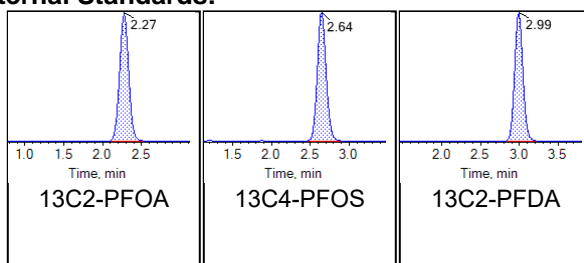
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | G1661-FS1-D(9) | Injection Vial | 3 |
| Sample ID | CBD-AOA-SW06-1020 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 6:09:10 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:





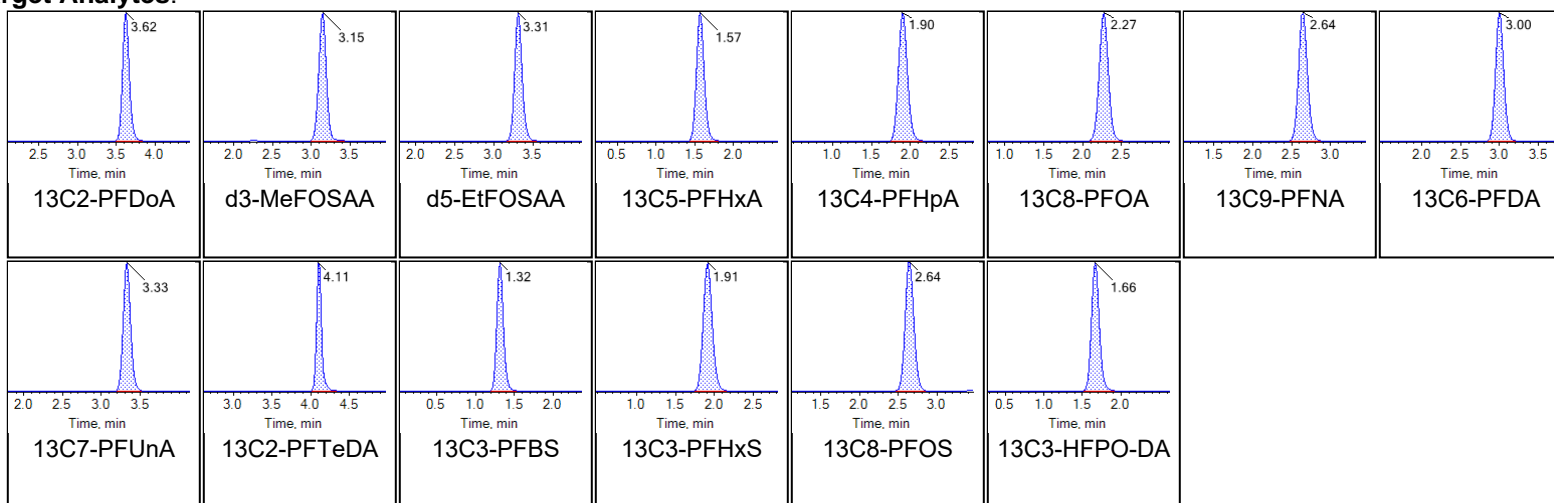
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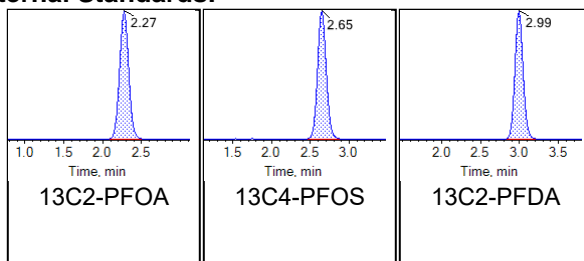
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|---------------------------|----------------------|-------------------------|----------------------------|
| Sample Name | LD76 CCV | Injection Vial | 4 |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | Triple Quad 6500+ Low Mass |
| Acquisition Date | 11/9/2020 6:19:40 PM | Data File | AE_11092020_5-369.wiff |
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Chromatograms

Target Analytes:



Internal Standards:



| Contract_ID | DO_CTO_Number | Phase | Installation_ID | Sample_Name | CH2M_Code | Analysis_Group | Analytical_Method | PRC_Code | Lab_Code | Lab_Name | Leachate_Method | SAMPLE_BASIS | Extraction_Method | Result_Type | Lab_QC_type | SAMPLE_MEDIUM | QC_Level | DateTime_Collected | Date_Received |
|---------------|---------------|-------|----------------------|-------------------|-----------|----------------|-------------------|----------|----------|-----------------------|-----------------|--------------|-------------------|-------------|-------------|---------------|----------|--------------------|---------------|
| N6247016D9000 | 4532 | | CHESAPEAKE BEACH_NRL | CBD-AQA-SW09-1020 | NONE | PFAS | PFAS_QSM5.3 | PFOAS | BMSL_NOR | BATTELLE, NORWELL, MA | NONE | N | METHOD | RAO | REG | W | 4 | 10/13/2020 14:25 | 10/14/2020 |
| N6247016D9000 | 4532 | | CHESAPEAKE BEACH_NRL | CBD-AQA-SW09-1020 | NONE | PFAS | PFAS_QSM5.3 | PFOAS | BMSL_NOR | BATTELLE, NORWELL, MA | NONE | N | METHOD | RAO | REG | W | 4 | 10/13/2020 14:25 | 10/14/2020 |
| N6247016D9000 | 4532 | | CHESAPEAKE BEACH_NRL | CBD-AQA-SW09-1020 | NONE | PFAS | PFAS_QSM5.3 | PFOAS | BMSL_NOR | BATTELLE, NORWELL, MA | NONE | N | METHOD | RAO | REG | W | 4 | 10/13/2020 14:25 | 10/14/2020 |
| N6247016D9000 | 4532 | | CHESAPEAKE BEACH_NRL | CBD-AQA-SW09-1020 | NONE | PFAS | PFAS_QSM5.3 | PFOAS | BMSL_NOR | BATTELLE, NORWELL, MA | NONE | N | METHOD | RAO | REG | W | 4 | 10/13/2020 14:25 | 10/14/2020 |
| N6247016D9000 | 4532 | | CHESAPEAKE BEACH_NRL | CBD-AQA-SW09-1020 | NONE | PFAS | PFAS_QSM5.3 | PFOAS | BMSL_NOR | BATTELLE, NORWELL, MA | NONE | N | METHOD | RAO | REG | W | 4 | 10/13/2020 14:25 | 10/14/2020 |
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| N6247016D9000 | 4532 | | CHESAPEAKE BEACH_NRL | CBD-AQA-SW09-1020 | NONE | PFAS | PFAS_QSM5.3 | PFOAS | BMSL_NOR | BATTELLE, NORWELL, MA | NONE | N | METHOD | DL3 | REG | W | 4 | 10/13/2020 14:25 | 10/14/2020 |
| N6247016D9000 | 4532 | | CHESAPEAKE BEACH_NRL | CBD-AQA-SW09-1020 | NONE | PFAS | PFAS_QSM5.3 | PFOAS | BMSL_NOR | BATTELLE, NORWELL, MA | NONE | N | METHOD | DL3 | REG | W | 4 | 10/13/2020 14:25 | 10/14/2020 |
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| N6247016D9000 | 4532 | | CHESAPEAKE BEACH_NRL | CBD-AQA-SW09-1020 | NONE | PFAS | PFAS_QSM5.3 | PFOAS | BMSL_NOR | BATTELLE, NORWELL, MA | NONE | N | METHOD | RAO | REG | W | 4 | 10/13/2020 14:25 | 10/14/2020 |
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| N6247016D9000 | 4532 | | CHESAPEAKE BEACH_NRL | CBD-AQA-SW09-1020 | NONE | PFAS | PFAS_QSM5.3 | PFOAS | BMSL_NOR | BATTELLE, NORWELL, MA | NONE | N | METHOD | DL5 | REG | W | 4 | 10/13/2020 14:25 | 10/14/2020 |
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| Leachate_Date | Leachate_Time | Extraction_Date | Extraction_Time | Analysis_Date | Analysis_Time | Lab_Sample_ID | Dilution | Run_Number | PERCENT_MOISTURE | PERCENT_LIPID | Chem_Name | Analyte_ID | Analyte_Value | Original_Analyte_Value | Result_Units | Lab_Qualifier | Validator_Qualifier | Final_Flag |
|---------------|---------------|-----------------|-----------------|---------------|---------------|---------------|----------|------------|------------------|---------------|---|-------------|---------------|------------------------|--------------|---------------|---------------------|------------|
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | Perfluorododecanoic Acid (PFDoA) | 307-55-1 | 2.4 | 2.4 | NG L | JT | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | Perfluorotridecanoic Acid (PFTriDA) | 72629-94-8 | 20.4 | 20.4 | NG L | T | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | Perfluorotetradecanoic Acid (PFTeDA) | 376-06-7 | 2 | 2 | NG L | UT | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA) | 2355-31-9 | 1 | 0.75 | NG L | JT | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA) | 2991-50-6 | 1 | 1 | NG L | UT | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | Perfluorobutanesulfonic acid (PFBS) | 375-73-5 | 17.3 | 17.3 | NG L | T | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201109 | 14:40:03 | G1668-FS1 | 5 | 4 | | | Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 323 | 323 | NG L | TD | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201109 | 14:50:31 | G1668-FS1 | 25 | 5 | | | Perfluorooctane Sulfonate (PFOS) | 1763-23-1 | 1380 | 1380 | NG L | TD | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | Perfluoro-2-methyl-3-oxahexanoic acid (HFPO-DA) | 13252-13-6 | 0.5 | 0.5 | NG L | UT | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | 4,8-dioxo-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | 1 | 1 | NG L | UT | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | 763051-92-9 | 1 | 1 | NG L | UT | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | 0.5 | 0.5 | NG L | UT | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201109 | 14:40:03 | G1668-FS1 | 5 | 4 | | | 13C5-PFHxA | BDO-2217 | 66 | 66 | PCT_REC | | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201109 | 14:40:03 | G1668-FS1 | 5 | 4 | | | 13C4-PFHxA | BDO-2218 | 78 | 78 | PCT_REC | | Exclude | Exclude |
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| | | 20201104 | 00:00:00 | 20201109 | 14:40:03 | G1668-FS1 | 5 | 4 | | | 13C7-PFUnA | BDO-2223 | 96 | 96 | PCT_REC | | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | 13C2-PFDoA | BDO-2112 | 36 | 36 | PCT_REC | N | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201107 | 00:34:03 | G1668-FS1 | 1 | 2 | | | 13C2-PFTeDA | BDO-2224 | 12 | 12 | PCT_REC | N | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201109 | 14:50:31 | G1668-FS1 | 25 | 5 | | | d3-MeFOSAA | BDO-1838 | 98 | 98 | PCT_REC | | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201109 | 14:50:31 | G1668-FS1 | 25 | 5 | | | d5-EtFOSAA | BDO-1839 | 112 | 112 | PCT_REC | | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201109 | 14:50:31 | G1668-FS1 | 25 | 5 | | | 13C3-PFBS | BDO-2226 | 94 | 94 | PCT_REC | | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201109 | 14:50:31 | G1668-FS1 | 25 | 5 | | | 13C3-PFHxS | BDO-2227 | 100 | 100 | PCT_REC | | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201109 | 14:50:31 | G1668-FS1 | 25 | 5 | | | 13C8-PFOS | BDO-2228 | 94 | 94 | PCT_REC | | Exclude | Exclude |
| | | 20201104 | 00:00:00 | 20201109 | 14:40:03 | G1668-FS1 | 5 | 4 | | | 13C3-HFPO-DA | BDO-2276 | 71 | 71 | PCT_REC | | Exclude | Exclude |

| GC_Column_Type | Analysis_Result_Type | Result_Narrative | QC_Control_Limit_Code | QC_Accuracy_Upper | QC_Accuracy_Lower | Control_Limit_Date | QC_Narrative | MDL | Detection_Limit | QSM_Version | DL | LOD | LOQ | SDG | Analysis_Batch | Validation_QC | Validator_Name | Val_Date |
|----------------|----------------------|------------------|-----------------------|-------------------|-------------------|--------------------|--------------|-----|-----------------|-------------|------|-----|-----|---------|----------------|-----------------|---------------------------------|----------|
| TRG | | | | | | | RE | | | 5.3 | 0.19 | 0.5 | 5 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| TRG | | | | | | | RE | | | 5.3 | 0.15 | 0.5 | 5 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| TRG | | | | | | | RE | | | 5.3 | 0.73 | 2 | 5 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| TRG | | | | | | | RE | | | 5.3 | 0.35 | 1 | 5 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| TRG | | | | | | | RE | | | 5.3 | 0.5 | 1 | 5 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| TRG | | | | | | | RE | | | 5.3 | 0.14 | 0.5 | 5 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| TRG | | | | | | | RE | | | 5.3 | 0.56 | 2 | 25 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| TRG | | | | | | | RE | | | 5.3 | 10.9 | 25 | 125 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| TRG | | | | | | | RE | | | 5.3 | 0.24 | 0.5 | 5 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| TRG | | | | | | | RE | | | 5.3 | 0.26 | 1 | 5 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| TRG | | | | | | | RE | | | 5.3 | 0.23 | 1 | 5 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| TRG | | | | | | | RE | | | 5.3 | 0.26 | 0.5 | 5 | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |
| SURR | | SLSP | | 150 | 50 | 20171116 | RE | | | 5.3 | | | | 20-1419 | DP-20-1298 | FULL_VALIDATION | ENVIRONMENTAL DATA SERVICES INC | 20210115 |

**DATA VALIDATION SUMMARY REPORT
NAVAL RESEARCH LABORATORY, MARYLAND**

Client: CH2M HILL, Inc., Herndon, Virginia
 SDG: 20-1419
 Laboratory: Battelle Norwell Operations, Norwell, Massachusetts
 Site: Naval Research Laboratory (NRL), Chesapeake Beach, Maryland
 Date: January 11, 2021

| PFAS | | | |
|--------|-------------------|----------------------|--------|
| EDS ID | Client Sample ID | Laboratory Sample ID | Matrix |
| 1 | CBD-AOA-SW07-1020 | G1644-FS1 | Water |
| 2 | CBD-AOA-SW05-1020 | G1645-FS1 | Water |
| 3 | CBD-AOA-SW03-1020 | G1646-FS1 | Water |
| 4 | CBD-AOA-SW04-1020 | G1647-FS1 | Water |
| 5 | CBD-AOA-SW02-1020 | G1651-FS1 | Water |
| 6 | CBD-AOA-SW01-1020 | G1654-FS1 | Water |
| 7 | CBD-AOA-SW06-1020 | G1661-FS1 | Water |
| 8 | CBD-AOA-SW09-1020 | G1668-FS1 | Water |

A Stage 2B/4 data validation was performed on the analytical data for eight water samples collected on October 13, 2020 by CH2M HILL at the Naval Research Laboratory Site 10 Fire Testing Area in Maryland. The samples were analyzed under the Analysis of Poly and Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS).

Specific method references are as follows:

Analysis
PFAS

Method References
Battelle SOP 5-369-08

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the Final Sampling and Analysis Plan Site 10 Fire Testing Area Site Inspection, Naval Research Laboratory, August 2020, and the DoD Final General Data Validation Guidelines, November 2019, including the following Module:

- The Department of Defense (DoD) Data Validation Guidelines Module 3, Data Validation Procedure for Per- and Polyfluoroalkyl Substances Analysis by Quality Systems Manual for Environmental Laboratories (QSM) Table B-15, May 2020;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Date Completeness, Case Narrative & Custody Documentation
- Holding times
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Laboratory Fortified Blank (LFB)
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Stage 2B/4) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no serious deficiencies of data.

The data are acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Per- and Polyfluoroalkyl Substances (PFAS)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted at 22 days which is outside the 14-day holding time for water samples. All samples were qualified estimated (J/UJ).

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent recovery (%R) criteria were met.

Method Blank

- The method blanks exhibited the following contamination.

| Blank ID | Compound | Conc. ng/L | Qualifier | Affected Samples |
|----------|----------|------------|-----------|------------------|
| LD80 IB | NMeFOSAA | 0.398 | U | 7, 8 |

Field QC Blank

- Field QC results are summarized below.

| Blank ID | Compound | Conc. ng/L | Qualifier | Affected Samples |
|------------------------|-----------|------------|-----------|------------------|
| CBD-AOA-EB01-101320-SW | None - ND | - | - | - |
| CBD-AOA-FB03-101320 | None - ND | - | - | - |

Surrogate Spike Recoveries

- Several samples exhibited surrogate percent recoveries outside of QC limits, however the results were already previously qualified (J/UJ) due to holding time deficiencies.

Laboratory Fortified Blank (LFB)

- The LFB samples exhibited acceptable percent recoveries (%R).

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- MS/MSD samples were not analyzed.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- Several compounds were analyzed at a dilution due to high concentrations of target compounds. The reporting limits were adjusted accordingly. No action was required.
- All samples were re-extracted outside of holding times from SDG 20-1298 to verify surrogate recovery deficiencies. Use the original analysis results in SDG 20-1298 for reporting purposes.

Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver
Nancy Weaver
Senior Chemist

Dated: 1/14/21

| Qualifier | Definition |
|-----------|---|
| U | The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample. |
| J | The reported result was an estimated value with an unknown bias. |
| J+ | The result was an estimated quantity, but the result may be biased high. |
| J- | The result was an estimated quantity, but the result may be biased low. |
| N | The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification." |
| NJ | The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample. |
| UJ | The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate. |
| X | <p>The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.</p> <p>Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.</p> |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID: CBD-AOA-SW07-1020

Battelle ID: G1644-F51
 Sample Type: SA
 Collection Date: 10/13/2020
 Extraction Date: 11/04/2020
 Analytical Instrument: Sciex 6500+ (AE) LC/MS/MS
 % Moisture: NA
 Matrix: SW
 Sample Size: 0.250
 Size Unit-Basis: L

Use original results in 20-1298

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|-----------------------|---------------|-------------------------|--------|----------------------|------------------|-------|-----------------|
| PFHxA | 307-24-4 | 131 T | G1644-F51(0) | 1.000 | 11/6/2020 | 0.527 | 1.50 | 5.00 |
| PFHpA | 375-85-9 | 57.7 T | G1644-F51(0) | 1.000 | 11/6/2020 | 0.263 | 1.00 | 5.00 |
| PFOA | 335-67-1 | 102 T | G1644-F51(0) | 1.000 | 11/6/2020 | 0.511 | 1.50 | 5.00 |
| PFNA | 375-95-1 | 197 TD | G1644-F51-D(3) | 5.000 | 11/9/2020 | 1.55 | 5.00 | 25.0 |
| PFDA | 335-76-2 | 5.80 T | G1644-F51(0) | 1.000 | 11/6/2020 | 0.142 | 0.500 | 5.00 |
| PFUnA | 2058-94-8 | 20.7 T | G1644-F51(0) | 1.000 | 11/6/2020 | 0.219 | 0.500 | 5.00 |
| PFDoA | 307-55-1 | 0.500 UT | G1644-F51(0) | 1.000 | 11/6/2020 | 0.192 | 0.500 | 5.00 |
| PFTrDA | 72629-94-8 | 0.500 UT | G1644-F51(0) | 1.000 | 11/6/2020 | 0.154 | 0.500 | 5.00 |
| PFTeDA | 376-06-7 | 2.00 UT | G1644-F51(0) | 1.000 | 11/6/2020 | 0.733 | 2.00 | 5.00 |
| NMeFOSAA | 2359-31-9 | 1.00 UT | G1644-F51(0) | 1.000 | 11/6/2020 | 0.350 | 1.00 | 5.00 |
| NEtFOSAA | 2991-50-6 | 1.00 UT | G1644-F51(0) | 1.000 | 11/6/2020 | 0.500 | 1.00 | 5.00 |
| PFBS | 375-73-5 | 22.0 T | G1644-F51(0) | 1.000 | 11/6/2020 | 0.144 | 0.500 | 5.00 |
| PFHxS | 355-46-4 | 342 TD | G1644-F51-D(3) | 5.000 | 11/9/2020 | 0.560 | 2.00 | 25.0 |
| PFOS | 1763-23-1 | 1610 TD | G1644-F51-D(7) | 31.250 | 11/9/2020 | 13.7 | 31.3 | 150 |
| HFPO-DA | 13252-13-6 | 0.500 UT | G1644-F51(0) | 1.000 | 11/6/2020 | 0.248 | 0.500 | 5.00 |
| Adona | 919005-14-4 | 1.00 UT | G1644-F51(0) | 1.000 | 11/6/2020 | 0.265 | 1.00 | 5.00 |
| 9CI-PF3ONS | 756426-58-1 | 0.500 UT | G1644-F51(0) | 1.000 | 11/6/2020 | 0.268 | 0.500 | 5.00 |
| 11CI-PF3OUdS | 763051-92-9 | 1.00 UT | G1644-F51(0) | 1.000 | 11/6/2020 | 0.231 | 1.00 | 5.00 |

HT

11/11/20



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID: CBD-AOA-SW07-1020
 Battelle ID: G1644-FS1
 Sample Type: SA
 Collection Date: 10/13/2020
 Extraction Date: 11/04/2020
 Analytical Instrument: Sciex 6500+ (AE) LC/MS/MS

Use original

| Surrogate Recoveries (%) | Recovery | Extract ID | Analysis Date |
|--------------------------|-----------------|-------------------------|----------------------|
| 13C5-PFHxA | 38 N | G1644-FS1(0) | 11/6/2020 |
| 13C4-PFHpA | 45 N | G1644-FS1(0) | 11/6/2020 |
| 13C8-PFOA | 78 | G1644-FS1(0) | 11/6/2020 |
| 13C9-PFNA | 104 D | G1644-FS1-D(7) | 11/9/2020 |
| 13C6-PFDA | 86 | G1644-FS1(0) | 11/6/2020 |
| 13C7-PFUxA | 103 | G1644-FS1(0) | 11/6/2020 |
| 13C2-PFDoA | 96 | G1644-FS1(0) | 11/6/2020 |
| 13C2-PFTeDA | 80 | G1644-FS1(0) | 11/6/2020 |
| d3-MeFOSAA | 93 D | G1644-FS1-D(7) | 11/9/2020 |
| d5-EtFOSAA | 97 D | G1644-FS1-D(7) | 11/9/2020 |
| 13C3-PFBS | 103 D | G1644-FS1-D(7) | 11/9/2020 |
| 13C3-PFHxS | 98 D | G1644-FS1-D(7) | 11/9/2020 |
| 13C8-PFOS | 94 D | G1644-FS1-D(7) | 11/9/2020 |
| 13C3-HFPO-DA | 65 | G1644-FS1(0) | 11/6/2020 |

awilulzi

Analyzed by: Schumitz, Denise
 Printed: 11/11/2020



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID CBD-AOA-SW05-1020

Battelle ID G1645-FS1
 Sample Type SA
 Collection Date 10/13/2020
 Extraction Date 11/04/2020
 Analytical Instrument Sciex 6500+ (AE) LC/MS/MS
 % Moisture NA
 Matrix SW
 Sample Size 0.260
 Size Unit-Basis L

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|---------------------|---------------|----------------|--------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 150 T | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.507 | 1.44 | 4.81 |
| PFHpA | 375-85-9 | 55.0 T | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.253 | 0.962 | 4.81 |
| PFOA | 335-67-1 | 113 T | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.491 | 1.44 | 4.81 |
| PFNA | 375-95-1 | 218 TD | G1645-FS1-D(3) | 5.000 | 11/9/2020 | 1.49 | 4.81 | 24.0 |
| PFDA | 335-76-2 | 4.58 JT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.137 | 0.481 | 4.81 |
| PFUnA | 2058-94-8 | 17.1 T | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.211 | 0.481 | 4.81 |
| PFDoA | 307-55-1 | 0.481 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.185 | 0.481 | 4.81 |
| PFTrDA | 72629-94-8 | 0.481 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.148 | 0.481 | 4.81 |
| PFTeDA | 376-06-7 | 1.92 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.705 | 1.92 | 4.81 |
| NMeFOSAA | 2395-31-9 | 0.962 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.337 | 0.962 | 4.81 |
| NEtFOSAA | 2991-50-6 | 0.962 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.481 | 0.962 | 4.81 |
| PFBS | 375-73-5 | 19.5 T | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.138 | 0.481 | 4.81 |
| PFHxS | 355-46-4 | 309 TD | G1645-FS1-D(3) | 5.000 | 11/9/2020 | 0.538 | 1.92 | 24.0 |
| PFOS | 1763-23-1 | 1420 TD | G1645-FS1-D(7) | 31.250 | 11/9/2020 | 13.1 | 30.0 | 150 |
| HFPO-DA | 13252-13-6 | 0.481 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.238 | 0.481 | 4.81 |
| Adona | 919005-14-4 | 0.962 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.255 | 0.962 | 4.81 |
| 9CI-PF3ONS | 756426-58-1 | 0.481 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.258 | 0.481 | 4.81 |
| 11CI-PF3OUds | 763051-92-9 | 0.962 UT | G1645-FS1(0) | 1.000 | 11/6/2020 | 0.222 | 0.962 | 4.81 |

2
 Use original
 results in
 20-1298

11/11/21

Analyzed by: Schumitz, Denise
 Printed: 11/11/2020



Project Client: CH2M
Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
Project No.: 100142218

Client ID: CBD-AOA-SW05-1020
Battelle ID: G1645-FS1
Sample Type: SA
Collection Date: 10/13/2020
Extraction Date: 11/04/2020
Analytical Instrument: Sciex 6500+ (AE) LC/MS/MS

2
Use original

| Surrogate Recoveries (%) | Recovery | Extract ID | Analysis Date |
|--------------------------|----------|----------------|---------------|
| 13C5-PFHxA | 36 | G1645-FS1(0) | 11/6/2020 |
| 13C4-PFHpA | 52 | G1645-FS1(0) | 11/6/2020 |
| 13C8-PFOA | 81 | G1645-FS1(0) | 11/6/2020 |
| 13C9-PFNA | 110 | G1645-FS1-D(7) | 11/9/2020 |
| 13C6-PFDA | 92 | G1645-FS1(0) | 11/6/2020 |
| 13C7-PFUmA | 98 | G1645-FS1(0) | 11/6/2020 |
| 13C2-PFDoA | 89 | G1645-FS1(0) | 11/6/2020 |
| 13C2-PFTeDA | 75 | G1645-FS1(0) | 11/6/2020 |
| d3-MeFOSAA | 105 | G1645-FS1-D(7) | 11/9/2020 |
| d5-EtFOSAA | 112 | G1645-FS1-D(7) | 11/9/2020 |
| 13C3-PFBS | 97 | G1645-FS1-D(7) | 11/9/2020 |
| 13C3-PFHxS | 105 | G1645-FS1-D(7) | 11/9/2020 |
| 13C8-PFOS | 105 | G1645-FS1-D(7) | 11/9/2020 |
| 13C3-HFPO-DA | 69 | G1645-FS1(0) | 11/6/2020 |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID CBD-AOA-SW03-1020

Battelle ID G1646-FS1
 Sample Type SA
 Collection Date 10/13/2020
 Extraction Date 11/04/2020
 Analytical Instrument Sciex 6500+ (AE) LC/MS/MS
 % Moisture NA
 Matrix SW
 Sample Size 0.260
 Size Unit-Basis L

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|---------------------|---------------|----------------|-------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 34.8 T | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.507 | 1.44 | 4.81 |
| PFHpA | 375-85-9 | 17.0 T | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.253 | 0.962 | 4.81 |
| PFOA | 335-67-1 | 71.6 T | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.491 | 1.44 | 4.81 |
| PFNA | 375-95-1 | 23.2 T | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.297 | 0.962 | 4.81 |
| PFDA | 335-76-2 | 0.374 JT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.137 | 0.481 | 4.81 |
| PFUnA | 2058-94-8 | 0.590 JT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.211 | 0.481 | 4.81 |
| PFDoA | 307-55-1 | 0.481 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.185 | 0.481 | 4.81 |
| PFTrDA | 72629-94-8 | 0.481 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.148 | 0.481 | 4.81 |
| PFTeDA | 376-06-7 | 1.92 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.705 | 1.92 | 4.81 |
| NMeFOSAA | 2335-31-9 | 0.962 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.397 | 0.962 | 4.81 |
| NETFOSAA | 2991-50-6 | 0.962 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.481 | 0.962 | 4.81 |
| PFBS | 375-73-5 | 6.74 T | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.138 | 0.481 | 4.81 |
| PFHxS | 355-46-4 | 139 TD | G1646-FS1-D(3) | 5.000 | 11/9/2020 | 0.538 | 1.92 | 24.0 |
| PFOS | 1763-23-1 | 167 TD | G1646-FS1-D(3) | 5.000 | 11/9/2020 | 2.10 | 4.81 | 24.0 |
| HFPO-DA | 13252-13-6 | 0.481 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.238 | 0.481 | 4.81 |
| Adona | 919005-14-4 | 0.962 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.255 | 0.962 | 4.81 |
| 9CI-PF3ONS | 756426-58-1 | 0.481 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.258 | 0.481 | 4.81 |
| 11CI-PF3OUds | 763051-92-9 | 0.962 UT | G1646-FS1(0) | 1.000 | 11/6/2020 | 0.222 | 0.962 | 4.81 |

Use original
 in 20-1298

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 Analyzed by: Schumitz, Denise
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Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

3

Client ID CBD-AOA-SW03-1020
 Battelle ID G1646-FS1
 Sample Type SA
 Collection Date 10/13/2020
 Extraction Date 11/04/2020
 Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

use original

| <u>Surrogate Recoveries (%)</u> | <u>Recovery</u> | <u>Extract ID</u> | <u>Analysis Date</u> |
|---------------------------------|------------------|---------------------------|----------------------|
| 13C5-PFHxA | 36 N | G1646-FS1(0) | 11/6/2020 |
| 13C4-PFHpA | 46 N | G1646-FS1(0) | 11/6/2020 |
| 13C8-PFOA | 70 | G1646-FS1(0) | 11/6/2020 |
| 13C9-PFNA | 103 D | G1646-FS1-D(3) | 11/9/2020 |
| 13C6-PFDA | 90 | G1646-FS1(0) | 11/6/2020 |
| 13C7-PFUxA | 106 D | G1646-FS1(0) | 11/6/2020 |
| 13C2-PFDoA | 91 | G1646-FS1(0) | 11/6/2020 |
| 13C2-PFTeDA | 67 | G1646-FS1(0) | 11/6/2020 |
| d3-MeFOSAA | 103 D | G1646-FS1-D(3) | 11/9/2020 |
| d5-EtFOSAA | 108 D | G1646-FS1-D(3) | 11/9/2020 |
| 13C3-PFBS | 77 D | G1646-FS1-D(3) | 11/9/2020 |
| 13C3-PFbS | 99 D | G1646-FS1-D(3) | 11/9/2020 |
| 13C8-PFOS | 95 D | G1646-FS1-D(3) | 11/9/2020 |
| 13C3-HFPO-DA | 57 | G1646-FS1(0) | 11/6/2020 |

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 Analyzed by: Schumitz, Denise
 Printed: 11/11/2020



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

4

Client ID: CBD-AOA-SW04-1020

Battelle ID: G1647-FS1
 Sample Type: SA
 Collection Date: 10/13/2020
 Extraction Date: 11/04/2020
 Analytical Instrument: Sciex 6500+ (AE) LC/MS/MS
 % Moisture: NA
 Matrix: SW
 Sample Size: 0.260
 Size Unit-Basis: L

Use ORIGINAL IN 20-1298

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|-------------|---------------|----------------|-------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 25.5 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.507 | 1.44 | 4.81 |
| PFHpA | 375-85-9 | 9.50 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.253 | 0.962 | 4.81 |
| PFOA | 335-67-1 | 23.6 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.491 | 1.44 | 4.81 |
| PFNA | 375-95-1 | 16.4 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.297 | 0.962 | 4.81 |
| PFDA | 335-76-2 | 0.481 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.137 | 0.481 | 4.81 |
| PFUnA | 2058-94-8 | 0.523 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.211 | 0.481 | 4.81 |
| PFDoA | 307-55-1 | 0.481 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.185 | 0.481 | 4.81 |
| PFTrDA | 72629-94-8 | 0.481 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.148 | 0.481 | 4.81 |
| PFTeDA | 376-06-7 | 1.92 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.705 | 1.92 | 4.81 |
| NMeFOSAA | 2355-31-9 | 0.962 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.337 | 0.962 | 4.81 |
| NEtFOSAA | 2991-50-6 | 0.962 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.481 | 0.962 | 4.81 |
| PFBS | 375-73-5 | 5.24 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.138 | 0.481 | 4.81 |
| PFHxS | 355-46-4 | 101 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.108 | 0.385 | 4.81 |
| PFOS | 1763-23-1 | 154 | G1647-FS1-D(3) | 5.000 | 11/9/2020 | 2.10 | 4.81 | 24.0 |
| HFPO-DA | 13252-13-6 | 0.481 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.238 | 0.481 | 4.81 |
| Adona | 919005-14-4 | 0.962 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.255 | 0.962 | 4.81 |
| 9CI-PF3ONS | 756426-58-1 | 0.481 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.258 | 0.481 | 4.81 |
| 11CI-PF3OUds | 763051-92-9 | 0.962 | G1647-FS1(0) | 1.000 | 11/6/2020 | 0.222 | 0.962 | 4.81 |

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Analyzed by: Schumitz, Denise
 Printed: 11/11/2020



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID CBD-AOA-SW04-1020
 Battelle ID G1647-FS1
 Sample Type SA
 Collection Date 10/13/2020
 Extraction Date 11/04/2020
 Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

| Surrogate Recoveries (%) | Recovery | Extract ID | Analysis Date |
|--------------------------|----------|----------------|---------------|
| 13C5-PFHxA | 36 N | G1647-FS1(0) | 11/6/2020 |
| 13C4-PFHpA | 47 N | G1647-FS1(0) | 11/6/2020 |
| 13C8-PFOA | 67 | G1647-FS1(0) | 11/6/2020 |
| 13C9-PFNA | 104 D | G1647-FS1-D(3) | 11/9/2020 |
| 13C6-PFDA | 84 | G1647-FS1(0) | 11/6/2020 |
| 13C7-PFUxA | 99 | G1647-FS1(0) | 11/6/2020 |
| 13C2-PFDoA | 86 | G1647-FS1(0) | 11/6/2020 |
| 13C2-PFTeDA | 61 | G1647-FS1(0) | 11/6/2020 |
| d3-MeFOSAA | 98 D | G1647-FS1-D(3) | 11/9/2020 |
| d8-EtFOSAA | 115 D | G1647-FS1-D(3) | 11/9/2020 |
| 13C3-PFBS | 82 D | G1647-FS1-D(3) | 11/9/2020 |
| 13C3-PFHxS | 92 D | G1647-FS1-D(3) | 11/9/2020 |
| 13C8-PFOS | 99 D | G1647-FS1-D(3) | 11/9/2020 |
| 13C3-HFPO-DA | 56 | G1647-FS1(0) | 11/6/2020 |

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Use original

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Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID: CBD-AOA-SW02-1020

Battelle ID: G1651-FS1
 Sample Type: SA
 Collection Date: 10/13/2020
 Extraction Date: 11/04/2020
 Analytical Instrument: Sciex 6500+ (AE) LC/MS/MS
 % Moisture: NA
 Matrix: SW
 Sample Size: 0.255
 Size Unit-Basis: L

5
 Use original
 in 20-1298

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|-------------|---------------|--------------|-------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 11.0 T J | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.517 | 1.47 | 4.90 |
| PFHpA | 375-85-9 | 4.37 JT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.258 | 0.980 | 4.90 |
| PFOA | 335-67-1 | 10.9 T | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.501 | 1.47 | 4.90 |
| PFNA | 375-95-1 | 4.72 JT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.303 | 0.980 | 4.90 |
| PFDA | 335-76-2 | 0.490 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.139 | 0.490 | 4.90 |
| PFUnA | 2058-94-8 | 1.17 JT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.215 | 0.490 | 4.90 |
| PFDoA | 307-55-1 | 0.490 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.188 | 0.490 | 4.90 |
| PFTroDA | 72629-94-8 | 0.490 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.151 | 0.490 | 4.90 |
| PFTeDA | 376-06-7 | 1.96 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.719 | 1.96 | 4.90 |
| NMeFOSAA | 2355-31-9 | 0.980 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.343 | 0.980 | 4.90 |
| NEtFOSAA | 2991-50-6 | 0.980 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.490 | 0.980 | 4.90 |
| PFBS | 375-73-5 | 3.05 JT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.141 | 0.490 | 4.90 |
| PFHxS | 355-46-4 | 51.3 T | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.110 | 0.392 | 4.90 |
| PFOS | 1763-23-1 | 48.7 T | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.428 | 0.980 | 4.90 |
| HFPO-DA | 13252-13-6 | 0.490 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.243 | 0.490 | 4.90 |
| Adona | 919005-14-4 | 0.980 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.260 | 0.980 | 4.90 |
| 9CI-PF3ONS | 756426-58-1 | 0.490 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.263 | 0.490 | 4.90 |
| 11CI-PF3OUds | 763051-92-9 | 0.980 UT | G1651-FS1(0) | 1.000 | 11/6/2020 | 0.226 | 0.980 | 4.90 |

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Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID: CBD-AOA-SW01-1020

Battelle ID: G1654-F51
 Sample Type: SA
 Collection Date: 10/13/2020
 Extraction Date: 11/04/2020
 Analytical Instrument: Sciex 6500+ (AE) LC/MS/MS
 % Moisture: NA
 Matrix: SW
 Sample Size: 0.265
 Size Unit-Basis: L

6

Use original
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| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|------------------------|---------------|--------------|-------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 3.11 JT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.497 | 1.42 | 4.72 |
| PFHpA | 375-85-9 | 1.57 JT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.248 | 0.943 | 4.72 |
| PFOA | 335-67-1 | 2.88 JT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.482 | 1.42 | 4.72 |
| PFNA | 375-93-1 | 1.64 JT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.292 | 0.943 | 4.72 |
| PFDA | 335-76-2 | 0.472 UT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.134 | 0.472 | 4.72 |
| PFUnA | 2058-94-8 | 0.268 JT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.207 | 0.472 | 4.72 |
| PFDoA | 307-55-1 | 0.472 UT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.181 | 0.472 | 4.72 |
| PFTroA | 72629-94-8 | 0.472 UT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.145 | 0.472 | 4.72 |
| PFTeDA | 376-06-7 | 1.89 UT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.692 | 1.89 | 4.72 |
| NMeFOSAA | 2355-31-9 | 0.943 UT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.380 | 0.943 | 4.72 |
| NEFOSAA | 2991-50-6 | 0.943 UT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.472 | 0.943 | 4.72 |
| PFBS | 375-73-5 | 2.02 JT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.136 | 0.472 | 4.72 |
| PFHxS | 355-46-4 | 21.4 T | G1654-F51(0) | 1.000 | 11/6/2020 | 0.106 | 0.377 | 4.72 |
| PFOS | 1763-23-1 | 11.1 T | G1654-F51(0) | 1.000 | 11/6/2020 | 0.412 | 0.943 | 4.72 |
| HFPO-DA | 13252-13-6 | 0.472 UT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.234 | 0.472 | 4.72 |
| Adona | 919005-14-4 | 0.943 UT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.250 | 0.943 | 4.72 |
| 9CI-PF3ONS | 756426-58-1 | 0.472 UT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.253 | 0.472 | 4.72 |
| 11CI-PF3OUds | 763051-92-9 | 0.943 UT | G1654-F51(0) | 1.000 | 11/6/2020 | 0.218 | 0.943 | 4.72 |

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Analyzed by: Schumitz, Denise
 Printed: 11/11/2020



Project Client: CH2M
Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
Project No.: 100142218

Client ID CBD-AOA-SW01-1020

Battelle ID G1654-FS1
Sample Type SA
Collection Date 10/13/2020
Extraction Date 11/04/2020
Analytical Instrument Sciex 6500+ (AE) LC/MS/MS

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Use original

| Surrogate Recoveries (%) | Recovery | Extract ID | Analysis Date |
|--------------------------|-----------------|-------------------------|----------------------|
| 13C5-PFHxA | 30 N | G1654-FS1(0) | 11/6/2020 |
| 13C4-PFHpA | 42 N | G1654-FS1(0) | 11/6/2020 |
| 13C8-PFOA | 66 | G1654-FS1(0) | 11/6/2020 |
| 13C9-PFNA | 85 | G1654-FS1(0) | 11/6/2020 |
| 13C6-PFDA | 76 | G1654-FS1(0) | 11/6/2020 |
| 13C7-PFUnA | 68 | G1654-FS1(0) | 11/6/2020 |
| 13C2-PFDoA | 43 N | G1654-FS1(0) | 11/6/2020 |
| 13C2-PFTeDA | 24 N | G1654-FS1(0) | 11/6/2020 |
| d3-MeFOSAA | 72 | G1654-FS1(0) | 11/6/2020 |
| d5-EtFOSAA | 86 | G1654-FS1(0) | 11/6/2020 |
| 13C3-PFBS | 50 | G1654-FS1(0) | 11/6/2020 |
| 13C3-PFHxS | 78 | G1654-FS1(0) | 11/6/2020 |
| 13C8-PFOS | 86 | G1654-FS1(0) | 11/6/2020 |
| 13C3-HFPO-DA | 51 | G1654-FS1(0) | 11/6/2020 |



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID: CBD-AOA-SW06-1020

Battelle ID: G1661-FS1
 Sample Type: SA
 Collection Date: 10/13/2020
 Extraction Date: 11/04/2020
 Analytical Instrument: Sciex 6500+ (AE) LC/MS/MS
 % Moisture: NA
 Matrix: SW
 Sample Size: 0.260
 Size Unit-Basis: L

7
 Use original IN 20-1298

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|-------------|---------------|----------------|---------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 462 TD J | G1661-FS1-D(3) | 5.000 | 11/9/2020 | 2.53 | 7.21 | 24.0 |
| PFHpA | 375-85-9 | 290 T | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.253 | 0.962 | 4.81 |
| PFOA | 335-67-1 | 380 TD | G1661-FS1-D(5) | 25.000 | 11/9/2020 | 12.3 | 36.1 | 120 |
| PFNA | 375-95-1 | 374 TD | G1661-FS1-D(3) | 5.000 | 11/9/2020 | 1.49 | 4.81 | 24.0 |
| PFDA | 335-76-2 | 40.6 T | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.137 | 0.481 | 4.81 |
| PFUnA | 2058-94-8 | 137 TD | G1661-FS1-D(3) | 5.000 | 11/9/2020 | 1.05 | 2.40 | 24.0 |
| PFDoA | 307-55-1 | 1.59 JT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.185 | 0.481 | 4.81 |
| PFTrDA | 72629-94-8 | 13.5 T | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.148 | 0.481 | 4.81 |
| PFTeDA | 376-06-7 | 1.92 VT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.705 | 1.92 | 4.81 |
| NMeFOSAA | 2355-31-9 | 2.39 JT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.337 | 0.962 | 4.81 |
| NEtFOSAA | 2991-50-6 | 0.962 UT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.481 | 0.962 | 4.81 |
| PFBS | 375-73-5 | 46.0 T J | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.138 | 0.481 | 4.81 |
| PFHxS | 355-46-4 | 1200 TD | G1661-FS1-D(5) | 25.000 | 11/9/2020 | 2.69 | 9.62 | 120 |
| PFOS | 1763-23-1 | 6210 TD | G1661-FS1-D(9) | 156.250 | 11/9/2020 | 65.7 | 150 | 751 |
| HFPO-DA | 13252-13-6 | 0.481 UT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.238 | 0.481 | 4.81 |
| Adona | 919005-14-4 | 0.962 UT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.255 | 0.962 | 4.81 |
| 9Cl-PF3ONS | 756426-58-1 | 0.481 UT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.258 | 0.481 | 4.81 |
| 11Cl-PF3OUds | 763051-92-9 | 0.962 UT | G1661-FS1(0) | 1.000 | 11/7/2020 | 0.222 | 0.962 | 4.81 |

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Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID: CBD-AOA-SW09-1020

Battelle ID: G1668-FS1
 Sample Type: SA
 Collection Date: 10/13/2020
 Extraction Date: 11/04/2020
 Analytical Instrument: Sciex 6500+ (AE) LC/MS/MS
 % Moisture: NA
 Matrix: SW
 Sample Size: 0.250
 Size Unit-Basis: L

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 Use original
 in 20-1298

| Analyte | CAS No. | Result (ng/L) | Extract ID | DF | Analysis Date | DL | LOD | LOQ |
|--------------|-------------|---------------|----------------|--------|---------------|-------|-------|------|
| PFHxA | 307-24-4 | 198 T J | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.527 | 1.50 | 5.00 |
| PFHpA | 375-85-9 | 232 T J | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.263 | 1.00 | 5.00 |
| PFOA | 335-67-1 | 141 TD | G1668-FS1-D(3) | 5.000 | 11/9/2020 | 2.56 | 7.50 | 25.0 |
| PFNA | 375-95-1 | 80.2 T J | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.309 | 1.00 | 5.00 |
| PFDA | 335-76-2 | 9.48 T | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.142 | 0.500 | 5.00 |
| PFUnA | 2058-94-8 | 125 TD | G1668-FS1-D(3) | 5.000 | 11/9/2020 | 1.10 | 2.50 | 25.0 |
| PFDoA | 307-55-1 | 2.40 JT | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.192 | 0.500 | 5.00 |
| PFTrDA | 72629-94-8 | 20.4 T J | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.154 | 0.500 | 5.00 |
| PFTeDA | 376-06-7 | 2.00 UT u J | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.733 | 2.00 | 5.00 |
| NMeFOSAA | 2355-31-9 | 1.00 UT u J | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.350 | 1.00 | 5.00 |
| NEtFOSAA | 2991-50-6 | 1.00 UT u J | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.500 | 1.00 | 5.00 |
| PFBS | 375-73-5 | 17.3 T J | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.144 | 0.500 | 5.00 |
| PFHxS | 355-46-4 | 323 TD | G1668-FS1-D(3) | 5.000 | 11/9/2020 | 0.560 | 2.00 | 25.0 |
| PFOS | 1763-23-1 | 1380 TD | G1668-FS1-D(5) | 25.000 | 11/9/2020 | 10.9 | 25.0 | 125 |
| HFPO-DA | 13252-13-6 | 0.500 UT u J | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.248 | 0.500 | 5.00 |
| Adona | 919005-14-4 | 1.00 UT | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.265 | 1.00 | 5.00 |
| 9Cl-PF3ONS | 756426-58-1 | 0.500 UT | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.268 | 0.500 | 5.00 |
| 11Cl-PF3OUdS | 763051-92-9 | 1.00 UT | G1668-FS1(0) | 1.000 | 11/7/2020 | 0.231 | 1.00 | 5.00 |

1.00

HT
 MGC HT

Handwritten signature

Analyzed by: Schumitz, Denise
 Printed: 11/11/2020



Project Client: CH2M
 Project Name: CTO-4532: NRL Chesapeake Bay Detachment (NRL-CBD) Site 10
 Project No.: 100142218

Client ID: CBD-AOA-SW09-1020
 Battelle ID: G1668-FS1
 Sample Type: SA
 Collection Date: 10/13/2020
 Extraction Date: 11/04/2020
 Analytical Instrument: Sciex 6500+ (AE) LC/MS/MS

8

use original

| Surrogate Recoveries (%) | Recovery | Extract ID | Analysis Date |
|--------------------------|----------|----------------|---------------|
| 13C5-PFHxA | 66 D | G1668-FS1-D(3) | 11/9/2020 |
| 13C4-PFHpA | 78 D | G1668-FS1-D(3) | 11/9/2020 |
| 13C8-PFOA | 90 D | G1668-FS1-D(3) | 11/9/2020 |
| 13C9-PFNA | 98 D | G1668-FS1-D(5) | 11/9/2020 |
| 13C6-PFDA | 73 | G1668-FS1(0) | 11/7/2020 |
| 13C7-PFUaA | 96 D | G1668-FS1-D(3) | 11/9/2020 |
| 13C2-PFDoA | 36 N | G1668-FS1(0) | 11/7/2020 |
| 13C2-PFTeDA | 12 N | G1668-FS1(0) | 11/7/2020 |
| d3-MeFOSAA | 98 D | G1668-FS1-D(5) | 11/9/2020 |
| d5-EtFOSAA | 112 D | G1668-FS1-D(5) | 11/9/2020 |
| 13C3-PFBS | 94 D | G1668-FS1-D(5) | 11/9/2020 |
| 13C3-PFHxS | 100 D | G1668-FS1-D(5) | 11/9/2020 |
| 13C8-PFOS | 94 D | G1668-FS1-D(5) | 11/9/2020 |
| 13C3-HFPO-DA | 71 D | G1668-FS1-D(3) | 11/9/2020 |

reutilized
 Analyzed by: Schumitz, Denise
 Printed: 11/11/2020

| LOCATION_NAME | SITE_NAME | INSTALLATION_ID | LOCATION_TYPE | LOCATION_TYPE_DESCRIPTION | SDG | COORD_X | COORD_Y | ANALYTICAL_METHOD_GRP_DESC | SAMPLE_NAME | SAMPLE_MATRIX | SAMPLE_MATRIX_DESC | COLLECT_DATE |
|----------------|------------|----------------------|---------------|----------------------------------|---------|------------|-----------|----------------------------|-------------------|---------------|--------------------|--------------|
| CBD-AOA-SW01 | SITE 00010 | CHESAPEAKE_BEACH_NRL | SWS | Surface water body - nonspecific | 20-1419 | 1445171.64 | 360920.92 | Perfluoroalkyl Compounds | CBD-AOA-SW01-1020 | WS | Surface water | 13-Oct-20 |
| CBD-AOA-SW03 | SITE 00010 | CHESAPEAKE_BEACH_NRL | SWS | Surface water body - nonspecific | 20-1419 | 1446150.22 | 360491.14 | Perfluoroalkyl Compounds | CBD-AOA-SW03-1020 | WS | Surface water | 13-Oct-20 |
| CBD-AOA-SW05 | SITE 00010 | CHESAPEAKE_BEACH_NRL | SWS | Surface water body - nonspecific | 20-1419 | 1446739.77 | 359968.95 | Perfluoroalkyl Compounds | CBD-AOA-SW05-1020 | WS | Surface water | 13-Oct-20 |
| CBD-AOA-SW07 | SITE 00010 | CHESAPEAKE_BEACH_NRL | SWS | Surface water body - nonspecific | 20-1419 | 1447020.98 | 359832.01 | Perfluoroalkyl Compounds | CBD-AOA-SW07-1020 | WS | Surface water | 13-Oct-20 |
| CBD-AOA-SW09 | SITE 00010 | CHESAPEAKE_BEACH_NRL | SWS | Surface water body - nonspecific | 20-1419 | 1445182.83 | 361936.62 | Perfluoroalkyl Compounds | CBD-AOA-SW09-1020 | WS | Surface water | 13-Oct-20 |
| CBD-AOA-SWSD02 | SITE 00010 | CHESAPEAKE_BEACH_NRL | SWSD | Surface Water/Sediment | 20-1419 | 1445382.26 | 360845.6 | Perfluoroalkyl Compounds | CBD-AOA-SW02-1020 | WS | Surface water | 13-Oct-20 |
| CBD-AOA-SWSD04 | SITE 00010 | CHESAPEAKE_BEACH_NRL | SWSD | Surface Water/Sediment | 20-1419 | 1445697.63 | 360641.15 | Perfluoroalkyl Compounds | CBD-AOA-SW04-1020 | WS | Surface water | 13-Oct-20 |
| CBD-AOA-SWSD06 | SITE 00010 | CHESAPEAKE_BEACH_NRL | SWSD | Surface Water/Sediment | 20-1419 | 1445768.61 | 362342.14 | Perfluoroalkyl Compounds | CBD-AOA-SW06-1020 | WS | Surface water | 13-Oct-20 |