



LELAP Certificate Number: 01955
A2LA Accredited (DoD ELAP-QSM 5.4) Certificate Number: 6429.01

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 10/07/2022

Report # 222082406



Project Benner Soil

Samples Collected 8/18/22 - 8/19/22

| <i>Deliver To</i> | <i>Additional Recipients</i> |
|--|-------------------------------------|
| Erin Peeling Benner Soil 4900 Ritter Rd Suite 101 Mechanicsburg, PA 17055 715906308 | Mathew Blanchard, HDR Engineering |



Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

| | |
|--------------|---|
| ND | Indicates the result was Not Detected at the specified reporting limit |
| NO | Indicates the sample did not ignite when preliminary test performed for EPA Method 1030 |
| DO | Indicates the result was Diluted Out |
| MI | Indicates the result was subject to Matrix Interference |
| TNTC | Indicates the result was Too Numerous To Count |
| SUBC | Indicates the analysis was Sub-Contracted |
| FLD | Indicates the analysis was performed in the Field |
| DL | Detection Limit |
| LOD | Limit of Detection |
| LOQ | Limit of Quantitation |
| RE | Re-analysis |
| CF | HPLC or GC Confirmation |
| 00:01 | Reported as a time equivalent to 12:00 AM |

Reporting Flags that may be Utilized in this Report

| | |
|---------------|---|
| J or I | Indicates the result is between the MDL and LOQ |
| J | DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria |
| U | Indicates the compound was analyzed for but not detected |
| B or V | Indicates the analyte was detected in the associated Method Blank |
| Q | Indicates a non-compliant QC Result (See Q Flag Application Report) |
| * | Indicates a non-compliant or not applicable QC recovery or RPD – see narrative |
| E | Organics - The result is estimated because it exceeded the instrument calibration range |
| E | Metals - % difference for the serial dilution is > 10% |
| L | Reporting Limits adjusted to meet risk-based limit. |
| P | RPD between primary and confirmation result is greater than 40 |
| DL | Diluted analysis – when appended to Client Sample ID |

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.



Authorized Signature
Pace Gulf Coast Report 222082406

Certifications

| Certification | Certification Number |
|------------------------------------|-----------------------------|
| A2LA Accredited (DoD ELAP-QSM 5.4) | 6429.01 |
| Alabama | 01955 |
| Arkansas | 88-0655 |
| Colorado | 01955 |
| Delaware | 01955 |
| Florida | E87854 |
| Georgia | 01955 |
| Hawaii | 01955 |
| Idaho | 01955 |
| Illinois | 200048 |
| Indiana | 01955 |
| Kansas | E-10354 |
| Kentucky | 95 |
| Louisiana | 01955 |
| Maryland | 01955 |
| Massachusetts | 01955 |
| Michigan | 01955 |
| Mississippi | 01955 |
| Missouri | 01955 |
| Montana | N/A |
| Nebraska | 01955 |
| New Mexico | 01955 |
| North Carolina | 618 |
| North Dakota | R-195 |
| Oklahoma | 9403 |
| South Carolina | 73006001 |
| South Dakota | 01955 |
| Tennessee | 01955 |
| Texas | T104704178 |
| Vermont | 01955 |
| Virginia | 460215 |
| Washington | C929 |
| USDA Soil Permit | P330-16-00234 |

Case Narrative

Client: HDR Engineering **Report:** 222082406

Pace Analytical Gulf Coast received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

10/04/2022 KAN- This revised report includes corrections to the sample checklist. This corrected checklist notes sample UPADam1A01:0.5-2 not received by PACE gulf coast and that the bottles used for this project were from PACE lab in Mechanicsburg, PA. This report supersedes and replaces any prior reports issued under this work order.

SEMI-VOLATILES MASS SPECTROMETRY

In the EPA 537 Mod Isotope Dilution analysis for prep batch 748297, the LCS and/or LCSD recoveries are outside control limits for PFODA.

In the EPA 537 Mod Isotope Dilution analysis for prep batch 748297, the LCS/LCSD RPD is above the control limit for PFODA.

Sample Summary

| Lab ID | Client ID | Matrix | Collect Date | Receive Date |
|-------------|---------------------------|--------|---------------|---------------|
| 22208240601 | FILLMORE RW01:0.5-1 | Solid | 8/18/22 10:20 | 8/23/22 09:38 |
| 22208240602 | PANG02:0.25-1.7 | Solid | 8/18/22 14:10 | 8/23/22 09:38 |
| 22208240603 | PANG01:0.5-2 | Solid | 8/18/22 14:45 | 8/23/22 09:38 |
| 22208240604 | UPAPANGOUTFALL01:0.5-0.85 | Solid | 8/18/22 15:35 | 8/23/22 09:38 |
| 22208240605 | EQRB-01 | Water | 8/18/22 15:45 | 8/23/22 09:38 |
| 22208240606 | BD-01 | Solid | 8/18/22 12:00 | 8/23/22 09:38 |
| 22208240608 | UPADAM1A02:0.5-2 | Solid | 8/19/22 09:55 | 8/23/22 09:38 |
| 22208240609 | UPADAM1A03:0.5-2 | Solid | 8/19/22 11:05 | 8/23/22 09:38 |
| 22208240610 | UPADAM1ASPILLWAY:0.5-1.7 | Solid | 8/19/22 12:10 | 8/23/22 09:38 |
| 22208240611 | UPADAM4A01:0.5-2 | Solid | 8/19/22 13:20 | 8/23/22 09:38 |
| 22208240612 | UPADAM4A03:0.5-1.2 | Solid | 8/19/22 15:05 | 8/23/22 09:38 |
| 22208240613 | UPADAM4A02:0.5-1 | Solid | 8/19/22 15:15 | 8/23/22 09:38 |
| 22208240614 | UPADAM4ASPILLWAY:0.5-2 | Solid | 8/19/22 16:00 | 8/23/22 09:38 |
| 22208240615 | BD-02 | Solid | 8/19/22 12:00 | 8/23/22 09:38 |
| 22208240616 | EQRB-02 | Water | 8/19/22 13:30 | 8/23/22 09:38 |

Detect Summary

Results and Detection Limits are adjusted for dilution and moisture when applicable

| EPA 537 Mod Isotope Dil. | | | | | | |
|--------------------------|---------------------------|--------------------------------------|-------|--------|------|--------|
| Lab ID | Client ID | Parameter | Units | Result | Dil. | %Moist |
| 22208240602 | PANG02:0.25-1.7 | NEtFOSAA | ug/Kg | 0.118J | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | NMeFOSAA | ug/Kg | 0.027J | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | Perfluorodecanoic acid (PFDA) | ug/Kg | 0.140J | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | Perfluorododecanoic acid (PFDoA) | ug/Kg | 0.082J | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | Perfluorohexanesulfonic acid (PFHxS) | ug/Kg | 0.043J | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | Perfluorohexanoic acid (PFHxA) | ug/Kg | 0.047J | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | Perfluorononanoic acid (PFNA) | ug/Kg | 0.065J | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | Perfluorooctane Sulfonamide (FOSA) | ug/Kg | 0.026J | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | Perfluorooctanesulfonic acid (PFOS) | ug/Kg | 1.50 | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | Perfluorooctanoic acid (PFOA) | ug/Kg | 0.116J | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | Perfluorotetradecanoic acid (PFTA) | ug/Kg | 0.044J | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | Perfluorotridecanoic acid (PFTDA) | ug/Kg | 0.042J | 1 | 18.6 |
| 22208240602 | PANG02:0.25-1.7 | Perfluoroundecanoic acid (PFUnA) | ug/Kg | 0.077J | 1 | 18.6 |
| 22208240603 | PANG01:0.5-2 | Perfluorohexanoic acid (PFHxA) | ug/Kg | 0.035J | 1 | 19.7 |
| 22208240603 | PANG01:0.5-2 | Perfluorononanoic acid (PFNA) | ug/Kg | 0.029J | 1 | 19.7 |
| 22208240603 | PANG01:0.5-2 | Perfluorooctanesulfonic acid (PFOS) | ug/Kg | 0.269J | 1 | 19.7 |
| 22208240604 | UPAPANGOUTFALL01:0.5-0.85 | Perfluorohexanoic acid (PFHxA) | ug/Kg | 0.027J | 1 | 12.9 |
| 22208240604 | UPAPANGOUTFALL01:0.5-0.85 | Perfluorononanoic acid (PFNA) | ug/Kg | 0.053J | 1 | 12.9 |
| 22208240604 | UPAPANGOUTFALL01:0.5-0.85 | Perfluorooctanesulfonic acid (PFOS) | ug/Kg | 1.15 | 1 | 12.9 |
| 22208240604 | UPAPANGOUTFALL01:0.5-0.85 | Perfluorooctanoic acid (PFOA) | ug/Kg | 0.152J | 1 | 12.9 |
| 22208240605 | EQRB-01 | Perfluorooctanesulfonic acid (PFOS) | ng/L | 1.74J | 1 | NA |
| 22208240605 | EQRB-01 | Perfluorooctanoic acid (PFOA) | ng/L | 1.41J | 1 | NA |
| 22208240606 | BD-01 | Perfluorodecanoic acid (PFDA) | ug/Kg | 0.046J | 1 | 7.93 |
| 22208240606 | BD-01 | Perfluorohexanesulfonic acid (PFHxS) | ug/Kg | 0.035J | 1 | 7.93 |
| 22208240606 | BD-01 | Perfluorohexanoic acid (PFHxA) | ug/Kg | 0.054J | 1 | 7.93 |
| 22208240606 | BD-01 | Perfluorononanoic acid (PFNA) | ug/Kg | 0.079J | 1 | 7.93 |
| 22208240606 | BD-01 | Perfluorooctanesulfonic acid (PFOS) | ug/Kg | 1.53 | 1 | 7.93 |
| 22208240606 | BD-01 | Perfluorooctanoic acid (PFOA) | ug/Kg | 0.220J | 1 | 7.93 |
| 22208240606 | BD-01 | Perfluoroundecanoic acid (PFUnA) | ug/Kg | 0.038J | 1 | 7.93 |
| 22208240608 | UPADAM1A02:0.5-2 | Perfluorodecanoic acid (PFDA) | ug/Kg | 0.082J | 1 | 25.89 |
| 22208240608 | UPADAM1A02:0.5-2 | Perfluorododecanoic acid (PFDoA) | ug/Kg | 0.048J | 1 | 25.89 |
| 22208240608 | UPADAM1A02:0.5-2 | Perfluorohexanoic acid (PFHxA) | ug/Kg | 0.060J | 1 | 25.89 |
| 22208240608 | UPADAM1A02:0.5-2 | Perfluorononanoic acid (PFNA) | ug/Kg | 0.065J | 1 | 25.89 |
| 22208240608 | UPADAM1A02:0.5-2 | Perfluorooctanesulfonic acid (PFOS) | ug/Kg | 2.28 | 1 | 25.89 |
| 22208240608 | UPADAM1A02:0.5-2 | Perfluorooctanoic acid (PFOA) | ug/Kg | 0.125J | 1 | 25.89 |
| 22208240608 | UPADAM1A02:0.5-2 | Perfluoroundecanoic acid (PFUnA) | ug/Kg | 0.046J | 1 | 25.89 |
| 22208240609 | UPADAM1A03:0.5-2 | NEtFOSAA | ug/Kg | 0.055J | 1 | 10.67 |
| 22208240609 | UPADAM1A03:0.5-2 | Perfluorodecanoic acid (PFDA) | ug/Kg | 0.142J | 1 | 10.67 |
| 22208240609 | UPADAM1A03:0.5-2 | Perfluorododecanoic acid (PFDoA) | ug/Kg | 0.073J | 1 | 10.67 |

Detect Summary (Continued)

Results and Detection Limits are adjusted for dilution and moisture when applicable

| EPA 537 Mod Isotope Dil. | | | | | | |
|--------------------------|--------------------------|--------------------------------------|-------|--------|------|--------|
| Lab ID | Client ID | Parameter | Units | Result | Dil. | %Moist |
| 22208240609 | UPADAM1A03:0.5-2 | Perfluorohexanesulfonic acid (PFHxS) | ug/Kg | 0.130J | 1 | 10.67 |
| 22208240609 | UPADAM1A03:0.5-2 | Perfluorohexanoic acid (PFHxA) | ug/Kg | 0.044J | 1 | 10.67 |
| 22208240609 | UPADAM1A03:0.5-2 | Perfluorononanoic acid (PFNA) | ug/Kg | 0.081J | 1 | 10.67 |
| 22208240609 | UPADAM1A03:0.5-2 | Perfluorooctanesulfonic acid (PFOS) | ug/Kg | 3.35 | 1 | 10.67 |
| 22208240609 | UPADAM1A03:0.5-2 | Perfluorooctanoic acid (PFOA) | ug/Kg | 0.133J | 1 | 10.67 |
| 22208240609 | UPADAM1A03:0.5-2 | Perfluorotetradecanoic acid (PFTA) | ug/Kg | 0.026J | 1 | 10.67 |
| 22208240609 | UPADAM1A03:0.5-2 | Perfluoroundecanoic acid (PFUnA) | ug/Kg | 0.062J | 1 | 10.67 |
| 22208240610 | UPADAM1ASPILLWAY:0.5-1.7 | Perfluorohexanesulfonic acid (PFHxS) | ug/Kg | 0.034J | 1 | 9.28 |
| 22208240610 | UPADAM1ASPILLWAY:0.5-1.7 | Perfluorohexanoic acid (PFHxA) | ug/Kg | 0.030J | 1 | 9.28 |
| 22208240610 | UPADAM1ASPILLWAY:0.5-1.7 | Perfluorooctanesulfonic acid (PFOS) | ug/Kg | 0.270J | 1 | 9.28 |
| 22208240611 | UPADAM4A01:0.5-2 | Perfluorohexanesulfonic acid (PFHxS) | ug/Kg | 0.110J | 1 | 12.28 |
| 22208240611 | UPADAM4A01:0.5-2 | Perfluorohexanoic acid (PFHxA) | ug/Kg | 0.111J | 1 | 12.28 |
| 22208240611 | UPADAM4A01:0.5-2 | Perfluorononanoic acid (PFNA) | ug/Kg | 0.088J | 1 | 12.28 |
| 22208240611 | UPADAM4A01:0.5-2 | Perfluorooctanesulfonic acid (PFOS) | ug/Kg | 4.53 | 1 | 12.28 |
| 22208240611 | UPADAM4A01:0.5-2 | Perfluoroundecanoic acid (PFUnA) | ug/Kg | 0.023J | 1 | 12.28 |
| 22208240612 | UPADAM4A03:0.5-1.2 | Perfluorooctanesulfonic acid (PFOS) | ug/Kg | 0.262J | 1 | 20.95 |
| 22208240613 | UPADAM4A02:0.5-1 | Perfluorodecanoic acid (PFDA) | ug/Kg | 0.046J | 1 | 11.91 |
| 22208240613 | UPADAM4A02:0.5-1 | Perfluorohexanesulfonic acid (PFHxS) | ug/Kg | 0.149J | 1 | 11.91 |
| 22208240613 | UPADAM4A02:0.5-1 | Perfluorohexanoic acid (PFHxA) | ug/Kg | 0.099J | 1 | 11.91 |
| 22208240613 | UPADAM4A02:0.5-1 | Perfluorononanoic acid (PFNA) | ug/Kg | 0.076J | 1 | 11.91 |
| 22208240613 | UPADAM4A02:0.5-1 | Perfluorooctanesulfonic acid (PFOS) | ug/Kg | 2.55 | 1 | 11.91 |
| 22208240613 | UPADAM4A02:0.5-1 | Perfluorooctanoic acid (PFOA) | ug/Kg | 0.120J | 1 | 11.91 |
| 22208240613 | UPADAM4A02:0.5-1 | Perfluoroundecanoic acid (PFUnA) | ug/Kg | 0.033J | 1 | 11.91 |
| 22208240614 | UPADAM4ASPILLWAY:0.5-2 | Perfluorohexanoic acid (PFHxA) | ug/Kg | 0.023J | 1 | 13.28 |
| 22208240615 | BD-02 | NEtFOSAA | ug/Kg | 0.044J | 1 | 14.28 |
| 22208240615 | BD-02 | Perfluorodecanoic acid (PFDA) | ug/Kg | 0.117J | 1 | 14.28 |
| 22208240615 | BD-02 | Perfluorododecanoic acid (PFDoA) | ug/Kg | 0.061J | 1 | 14.28 |
| 22208240615 | BD-02 | Perfluorohexanesulfonic acid (PFHxS) | ug/Kg | 0.038J | 1 | 14.28 |
| 22208240615 | BD-02 | Perfluorohexanoic acid (PFHxA) | ug/Kg | 0.023J | 1 | 14.28 |
| 22208240615 | BD-02 | Perfluorononanoic acid (PFNA) | ug/Kg | 0.048J | 1 | 14.28 |
| 22208240615 | BD-02 | Perfluorooctanesulfonic acid (PFOS) | ug/Kg | 2.52 | 1 | 14.28 |
| 22208240615 | BD-02 | Perfluorotetradecanoic acid (PFTA) | ug/Kg | 0.022J | 1 | 14.28 |
| 22208240615 | BD-02 | Perfluoroundecanoic acid (PFUnA) | ug/Kg | 0.052J | 1 | 14.28 |

Sample Results

| | | | | |
|----------------------------|---------------------|------------------|---------------|-------------|
| FILLMORE RW01:0.5-1 | Collect Date | 08/18/2022 10:20 | Lab ID | 22208240601 |
| | Receive Date | 08/23/2022 09:38 | Matrix | Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 18:38 | 748446 | SLR2 | 11.85 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|---|----------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11Cl-PF3OUdS | ND | 0.022 | 1.09 | ug/Kg | |
| 756426-58-1 | 9Cl-PF3ONS | ND | 0.033 | 1.09 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.011 | 1.09 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | ND | 0.033 | 1.09 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.022 | 1.09 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.153 | 2.19 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.022 | 1.09 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | 0.044 | 1.09 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | 0.022 | 1.09 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | ND | 0.033 | 1.09 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | 0.022 | 1.09 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | 0.022 | 1.09 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.022 | 1.09 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | 0.055 | 1.09 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | 0.088 | 1.09 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 0.022 | 1.09 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | 0.033 | 1.09 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | 0.022 | 1.09 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 96.5 | 78.8 | ug/Kg | 82 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 96.5 | 89.8 | ug/Kg | 93 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 96.5 | 88.2 | ug/Kg | 91 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 96.5 | 94.1 | ug/Kg | 98 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 96.5 | 104 | ug/Kg | 108 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 96.5 | 97.7 | ug/Kg | 101 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 96.5 | 92.7 | ug/Kg | 96 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 96.5 | 92 | ug/Kg | 95 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 96.5 | 94.2 | ug/Kg | 98 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 96.5 | 93.2 | ug/Kg | 97 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 96.5 | 91.5 | ug/Kg | 95 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 96.5 | 90.7 | ug/Kg | 94 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 96.5 | 99.3 | ug/Kg | 103 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 96.5 | 98 | ug/Kg | 102 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 96.5 | 83.8 | ug/Kg | 87 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 96.5 | 97.9 | ug/Kg | 101 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 96.5 | 95 | ug/Kg | 98 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 96.5 | 100 | ug/Kg | 104 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 96.5 | 92.4 | ug/Kg | 96 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 96.5 | 95.8 | ug/Kg | 99 | 50 - 150 |

Sample Results

| | | |
|-----------------|--------------------------------------|---------------------------|
| PANG02:0.25-1.7 | Collect Date 08/18/2022 14:10 | Lab ID 22208240602 |
| | Receive Date 08/23/2022 09:38 | Matrix Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 18:24 | 748446 | SLR2 | 18.6 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|---|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11CI-PF3OUdS | ND | 0.023 | 1.17 | ug/Kg | |
| 756426-58-1 | 9CI-PF3ONS | ND | 0.035 | 1.17 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.012 | 1.17 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | 0.118J | 0.035 | 1.17 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | 0.027J | 0.023 | 1.17 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.164 | 2.35 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.023 | 1.17 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.140J | 0.047 | 1.17 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.082J | 0.023 | 1.17 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.043J | 0.035 | 1.17 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.047J | 0.023 | 1.17 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.065J | 0.023 | 1.17 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | 0.026J | 0.023 | 1.17 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 1.50 | 0.059 | 1.17 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.116J | 0.094 | 1.17 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | 0.044J | 0.023 | 1.17 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | 0.042J | 0.035 | 1.17 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.077J | 0.023 | 1.17 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 95.6 | 82.9 | ug/Kg | 87 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 95.6 | 94 | ug/Kg | 98 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 95.6 | 93.3 | ug/Kg | 98 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 95.6 | 105 | ug/Kg | 110 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 95.6 | 106 | ug/Kg | 111 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 95.6 | 101 | ug/Kg | 105 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 95.6 | 83.9 | ug/Kg | 88 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 95.6 | 85.8 | ug/Kg | 90 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 95.6 | 88 | ug/Kg | 92 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 95.6 | 89.3 | ug/Kg | 93 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 95.6 | 87.4 | ug/Kg | 91 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 95.6 | 87.1 | ug/Kg | 91 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 95.6 | 102 | ug/Kg | 107 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 95.6 | 100 | ug/Kg | 105 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 95.6 | 85.1 | ug/Kg | 89 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 95.6 | 93.9 | ug/Kg | 98 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 95.6 | 92.2 | ug/Kg | 96 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 95.6 | 99.5 | ug/Kg | 104 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 95.6 | 86.4 | ug/Kg | 90 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 95.6 | 102 | ug/Kg | 107 | 50 - 150 |

Sample Results

| | | |
|--------------|--------------------------------------|---------------------------|
| PANG01:0.5-2 | Collect Date 08/18/2022 14:45 | Lab ID 22208240603 |
| | Receive Date 08/23/2022 09:38 | Matrix Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 18:53 | 748446 | SLR2 | 19.7 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|--|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11CI-PF3OUdS | ND | 0.024 | 1.19 | ug/Kg | |
| 756426-58-1 | 9CI-PF3ONS | ND | 0.036 | 1.19 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.012 | 1.19 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | ND | 0.036 | 1.19 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.024 | 1.19 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.166 | 2.37 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.024 | 1.19 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | 0.047 | 1.19 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | 0.024 | 1.19 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | ND | 0.036 | 1.19 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.035J | 0.024 | 1.19 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.029J | 0.024 | 1.19 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.024 | 1.19 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.269J | 0.059 | 1.19 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | 0.095 | 1.19 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 0.024 | 1.19 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTTrDA) | ND | 0.036 | 1.19 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | 0.024 | 1.19 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 95.2 | 75 | ug/Kg | 79 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 95.2 | 91.8 | ug/Kg | 96 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 95.2 | 87.6 | ug/Kg | 92 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 95.2 | 92.8 | ug/Kg | 97 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 95.2 | 97.7 | ug/Kg | 103 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 95.2 | 88.4 | ug/Kg | 93 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 95.2 | 86.4 | ug/Kg | 91 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 95.2 | 88.4 | ug/Kg | 93 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 95.2 | 88.7 | ug/Kg | 93 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 95.2 | 88.2 | ug/Kg | 93 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 95.2 | 87.5 | ug/Kg | 92 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 95.2 | 88.9 | ug/Kg | 93 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 95.2 | 97 | ug/Kg | 102 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 95.2 | 92.2 | ug/Kg | 97 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 95.2 | 76.8 | ug/Kg | 81 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 95.2 | 92.5 | ug/Kg | 97 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 95.2 | 93.2 | ug/Kg | 98 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 95.2 | 96.3 | ug/Kg | 101 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 95.2 | 88.6 | ug/Kg | 93 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 95.2 | 92.4 | ug/Kg | 97 | 50 - 150 |

Sample Results

| | | | | |
|----------------------------------|--------------|------------------|--------|-------------|
| UPAPANGOUTFALL01:0.5-0.85 | Collect Date | 08/18/2022 15:35 | Lab ID | 22208240604 |
| | Receive Date | 08/23/2022 09:38 | Matrix | Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 19:07 | 748446 | SLR2 | 12.9 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|--|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11Cl-PF3OUdS | ND | 0.022 | 1.12 | ug/Kg | |
| 756426-58-1 | 9Cl-PF3ONS | ND | 0.034 | 1.12 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.011 | 1.12 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | ND | 0.034 | 1.12 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.022 | 1.12 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.157 | 2.24 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.022 | 1.12 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | 0.045 | 1.12 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | 0.022 | 1.12 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | ND | 0.034 | 1.12 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.027J | 0.022 | 1.12 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.053J | 0.022 | 1.12 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.022 | 1.12 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 1.15 | 0.056 | 1.12 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.152J | 0.090 | 1.12 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 0.022 | 1.12 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTTrDA) | ND | 0.034 | 1.12 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | 0.022 | 1.12 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 97.5 | 79 | ug/Kg | 81 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 97.5 | 87.8 | ug/Kg | 90 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 97.5 | 97.2 | ug/Kg | 100 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 97.5 | 103 | ug/Kg | 105 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 97.5 | 99.8 | ug/Kg | 102 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 97.5 | 98.5 | ug/Kg | 101 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 97.5 | 82.6 | ug/Kg | 85 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 97.5 | 88.7 | ug/Kg | 91 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 97.5 | 89.4 | ug/Kg | 92 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 97.5 | 86.7 | ug/Kg | 89 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 97.5 | 86.5 | ug/Kg | 89 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 97.5 | 86.5 | ug/Kg | 89 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 97.5 | 96.5 | ug/Kg | 99 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 97.5 | 93.7 | ug/Kg | 96 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 97.5 | 78.7 | ug/Kg | 81 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 97.5 | 91.7 | ug/Kg | 94 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 97.5 | 89.7 | ug/Kg | 92 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 97.5 | 96.2 | ug/Kg | 99 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 97.5 | 86.4 | ug/Kg | 89 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 97.5 | 93.7 | ug/Kg | 96 | 50 - 150 |

Sample Results

| | | | | |
|----------------|---------------------|------------------|---------------|-------------|
| EQRB-01 | Collect Date | 08/18/2022 15:45 | Lab ID | 22208240605 |
| | Receive Date | 08/23/2022 09:38 | Matrix | Water |

EPA 537 Mod Isotope Dilution

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 13:00 | 748297 | EPA 537 Mod Isotope Dilution | 1 | 08/27/22 18:34 | 748725 | SLR2 | NA |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|--|--------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11Cl-PF3OUdS | ND | 0.886 | 3.94 | ng/L | |
| 756426-58-1 | 9Cl-PF3ONS | ND | 0.886 | 3.94 | ng/L | |
| 919005-14-4 | ADONA | ND | 0.846 | 3.94 | ng/L | |
| 2991-50-6 | NEtFOSAA | ND | 1.56 | 7.87 | ng/L | |
| 2355-31-9 | NMeFOSAA | ND | 0.886 | 7.87 | ng/L | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 6.56 | 19.7 | ng/L | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.610 | 3.94 | ng/L | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | 1.42 | 3.94 | ng/L | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | 1.28 | 3.94 | ng/L | |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | ND | 1.14 | 3.94 | ng/L | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | ND | 1.22 | 3.94 | ng/L | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | 0.925 | 3.94 | ng/L | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | 0.965 | 3.94 | ng/L | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 1.74J | 0.748 | 3.94 | ng/L | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 1.41J | 0.827 | 3.94 | ng/L | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 1.12 | 3.94 | ng/L | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTTrDA) | ND | 1.21 | 3.94 | ng/L | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | 1.22 | 3.94 | ng/L | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 98.4 | 74.8 | ng/L | 76 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 98.4 | 85.9 | ng/L | 87 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 98.4 | 99.2 | ng/L | 101 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 98.4 | 105 | ng/L | 106 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 98.4 | 98.3 | ng/L | 100 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 98.4 | 77.7 | ng/L | 79 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 98.4 | 98.6 | ng/L | 100 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 98.4 | 91.8 | ng/L | 93 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 98.4 | 90.8 | ng/L | 92 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 98.4 | 99.6 | ng/L | 101 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 98.4 | 100 | ng/L | 102 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 98.4 | 105 | ng/L | 107 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 98.4 | 102 | ng/L | 103 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 98.4 | 92.2 | ng/L | 94 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 98.4 | 77 | ng/L | 78 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 98.4 | 104 | ng/L | 106 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 98.4 | 90.7 | ng/L | 92 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 98.4 | 103 | ng/L | 105 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 98.4 | 102 | ng/L | 104 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 98.4 | 84.7 | ng/L | 86 | 50 - 150 |

Sample Results

| | | | | |
|--------------|---------------------|------------------|---------------|-------------|
| BD-01 | Collect Date | 08/18/2022 12:00 | Lab ID | 22208240606 |
| | Receive Date | 08/23/2022 09:38 | Matrix | Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 19:22 | 748446 | SLR2 | 7.93 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|---|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11Cl-PF3OUdS | ND | 0.022 | 1.08 | ug/Kg | |
| 756426-58-1 | 9Cl-PF3ONS | ND | 0.032 | 1.08 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.011 | 1.08 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | ND | 0.032 | 1.08 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.022 | 1.08 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.151 | 2.15 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.022 | 1.08 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.046J | 0.043 | 1.08 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | 0.022 | 1.08 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.035J | 0.032 | 1.08 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.054J | 0.022 | 1.08 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.079J | 0.022 | 1.08 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.022 | 1.08 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 1.53 | 0.054 | 1.08 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.220J | 0.086 | 1.08 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 0.022 | 1.08 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTTrDA) | ND | 0.032 | 1.08 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.038J | 0.022 | 1.08 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 99 | 69 | ug/Kg | 70 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 99 | 76.2 | ug/Kg | 77 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 99 | 89.4 | ug/Kg | 90 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 99 | 91.5 | ug/Kg | 92 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 99 | 90.8 | ug/Kg | 92 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 99 | 84.8 | ug/Kg | 86 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 99 | 78.9 | ug/Kg | 80 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 99 | 82.9 | ug/Kg | 84 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 99 | 80.1 | ug/Kg | 81 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 99 | 83 | ug/Kg | 84 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 99 | 83.3 | ug/Kg | 84 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 99 | 85.2 | ug/Kg | 86 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 99 | 86.7 | ug/Kg | 88 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 99 | 83 | ug/Kg | 84 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 99 | 73.9 | ug/Kg | 75 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 99 | 85.3 | ug/Kg | 86 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 99 | 80.5 | ug/Kg | 81 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 99 | 85.9 | ug/Kg | 87 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 99 | 85.9 | ug/Kg | 87 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 99 | 83.9 | ug/Kg | 85 | 50 - 150 |

Sample Results

| | | | | |
|-------------------------|---------------------|------------------|---------------|-------------|
| UPADAM1A02:0.5-2 | Collect Date | 08/19/2022 09:55 | Lab ID | 22208240608 |
| | Receive Date | 08/23/2022 09:38 | Matrix | Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 19:37 | 748446 | SLR2 | 25.89 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|--|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11CI-PF3OUdS | ND | 0.026 | 1.29 | ug/Kg | |
| 756426-58-1 | 9CI-PF3ONS | ND | 0.039 | 1.29 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.013 | 1.29 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | ND | 0.039 | 1.29 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.026 | 1.29 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.180 | 2.58 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.026 | 1.29 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.082J | 0.052 | 1.29 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.048J | 0.026 | 1.29 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | ND | 0.039 | 1.29 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.060J | 0.026 | 1.29 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.065J | 0.026 | 1.29 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.026 | 1.29 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 2.28 | 0.064 | 1.29 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.125J | 0.103 | 1.29 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 0.026 | 1.29 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | 0.039 | 1.29 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.046J | 0.026 | 1.29 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 95.4 | 77.7 | ug/Kg | 81 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 95.4 | 86.4 | ug/Kg | 91 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 95.4 | 95.3 | ug/Kg | 100 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 95.4 | 104 | ug/Kg | 109 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 95.4 | 109 | ug/Kg | 114 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 95.4 | 91.4 | ug/Kg | 96 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 95.4 | 84.8 | ug/Kg | 89 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 95.4 | 86 | ug/Kg | 90 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 95.4 | 85.3 | ug/Kg | 89 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 95.4 | 87.7 | ug/Kg | 92 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 95.4 | 86.8 | ug/Kg | 91 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 95.4 | 86.1 | ug/Kg | 90 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 95.4 | 95.2 | ug/Kg | 100 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 95.4 | 93.3 | ug/Kg | 98 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 95.4 | 76.1 | ug/Kg | 80 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 95.4 | 91.8 | ug/Kg | 96 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 95.4 | 85.4 | ug/Kg | 89 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 95.4 | 95.4 | ug/Kg | 100 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 95.4 | 85.9 | ug/Kg | 90 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 95.4 | 91.5 | ug/Kg | 96 | 50 - 150 |

Sample Results

| | | |
|-------------------------|--------------------------------------|---------------------------|
| UPADAM1A03:0.5-2 | Collect Date 08/19/2022 11:05 | Lab ID 22208240609 |
| | Receive Date 08/23/2022 09:38 | Matrix Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 19:51 | 748446 | SLR2 | 10.67 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|---|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11Cl-PF3OUdS | ND | 0.022 | 1.11 | ug/Kg | |
| 756426-58-1 | 9Cl-PF3ONS | ND | 0.033 | 1.11 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.011 | 1.11 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | 0.055J | 0.033 | 1.11 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.022 | 1.11 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.156 | 2.23 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.022 | 1.11 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.142J | 0.045 | 1.11 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.073J | 0.022 | 1.11 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.130J | 0.033 | 1.11 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.044J | 0.022 | 1.11 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.081J | 0.022 | 1.11 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.022 | 1.11 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 3.35 | 0.056 | 1.11 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.133J | 0.089 | 1.11 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | 0.026J | 0.022 | 1.11 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTTrDA) | ND | 0.033 | 1.11 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.062J | 0.022 | 1.11 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 99.4 | 67.1 | ug/Kg | 67 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 99.4 | 76.8 | ug/Kg | 77 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 99.4 | 91.3 | ug/Kg | 92 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 99.4 | 99.8 | ug/Kg | 100 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 99.4 | 94.6 | ug/Kg | 95 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 99.4 | 85.1 | ug/Kg | 86 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 99.4 | 75.3 | ug/Kg | 76 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 99.4 | 78.5 | ug/Kg | 79 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 99.4 | 78.5 | ug/Kg | 79 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 99.4 | 78.6 | ug/Kg | 79 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 99.4 | 77.8 | ug/Kg | 78 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 99.4 | 77.6 | ug/Kg | 78 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 99.4 | 83.7 | ug/Kg | 84 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 99.4 | 83.4 | ug/Kg | 84 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 99.4 | 65.4 | ug/Kg | 66 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 99.4 | 82 | ug/Kg | 83 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 99.4 | 78.2 | ug/Kg | 79 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 99.4 | 82.9 | ug/Kg | 83 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 99.4 | 76.6 | ug/Kg | 77 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 99.4 | 83.8 | ug/Kg | 84 | 50 - 150 |

Sample Results

| | | | | |
|----------------------------------|---------------------|------------------|---------------|-------------|
| UPADAM1 ASPILLWAY:0.5-1.7 | Collect Date | 08/19/2022 12:10 | Lab ID | 22208240610 |
| | Receive Date | 08/23/2022 09:38 | Matrix | Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 20:06 | 748446 | SLR2 | 9.28 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|---|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11Cl-PF3OUdS | ND | 0.021 | 1.07 | ug/Kg | |
| 756426-58-1 | 9Cl-PF3ONS | ND | 0.032 | 1.07 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.011 | 1.07 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | ND | 0.032 | 1.07 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.021 | 1.07 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.150 | 2.14 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.021 | 1.07 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | 0.043 | 1.07 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | 0.021 | 1.07 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.034J | 0.032 | 1.07 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.030J | 0.021 | 1.07 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | 0.021 | 1.07 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.021 | 1.07 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.270J | 0.054 | 1.07 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | 0.086 | 1.07 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 0.021 | 1.07 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTTrDA) | ND | 0.032 | 1.07 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | 0.021 | 1.07 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 97.3 | 61.5 | ug/Kg | 63 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 97.3 | 70.9 | ug/Kg | 73 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 97.3 | 69.5 | ug/Kg | 71 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 97.3 | 74.7 | ug/Kg | 77 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 97.3 | 75.9 | ug/Kg | 78 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 97.3 | 66.4 | ug/Kg | 68 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 97.3 | 75.4 | ug/Kg | 78 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 97.3 | 74.2 | ug/Kg | 76 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 97.3 | 76.7 | ug/Kg | 79 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 97.3 | 74.4 | ug/Kg | 76 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 97.3 | 75.4 | ug/Kg | 77 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 97.3 | 73.1 | ug/Kg | 75 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 97.3 | 80.7 | ug/Kg | 83 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 97.3 | 75.1 | ug/Kg | 77 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 97.3 | 61.3 | ug/Kg | 63 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 97.3 | 78.1 | ug/Kg | 80 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 97.3 | 77.2 | ug/Kg | 79 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 97.3 | 79.4 | ug/Kg | 82 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 97.3 | 74.9 | ug/Kg | 77 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 97.3 | 75.2 | ug/Kg | 77 | 50 - 150 |

Sample Results

| | | | | |
|-------------------------|---------------------|------------------|---------------|-------------|
| UPADAM4A01:0.5-2 | Collect Date | 08/19/2022 13:20 | Lab ID | 22208240611 |
| | Receive Date | 08/23/2022 09:38 | Matrix | Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 20:21 | 748446 | SLR2 | 12.28 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|---|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11Cl-PF3OUdS | ND | 0.023 | 1.13 | ug/Kg | |
| 756426-58-1 | 9Cl-PF3ONS | ND | 0.034 | 1.13 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.011 | 1.13 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | ND | 0.034 | 1.13 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.023 | 1.13 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.158 | 2.26 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.023 | 1.13 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | 0.045 | 1.13 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | 0.023 | 1.13 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.110J | 0.034 | 1.13 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.111J | 0.023 | 1.13 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.088J | 0.023 | 1.13 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.023 | 1.13 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 4.53 | 0.056 | 1.13 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | 0.090 | 1.13 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 0.023 | 1.13 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTTrDA) | ND | 0.034 | 1.13 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.023J | 0.023 | 1.13 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 99 | 61.4 | ug/Kg | 62 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 99 | 68.2 | ug/Kg | 69 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 99 | 78 | ug/Kg | 79 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 99 | 78.5 | ug/Kg | 79 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 99 | 80.1 | ug/Kg | 81 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 99 | 64.2 | ug/Kg | 65 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 99 | 81.5 | ug/Kg | 82 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 99 | 80.1 | ug/Kg | 81 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 99 | 81.2 | ug/Kg | 82 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 99 | 78.8 | ug/Kg | 80 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 99 | 78.1 | ug/Kg | 79 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 99 | 78.4 | ug/Kg | 79 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 99 | 83.3 | ug/Kg | 84 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 99 | 77.9 | ug/Kg | 79 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 99 | 63.4 | ug/Kg | 64 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 99 | 81.7 | ug/Kg | 83 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 99 | 78.5 | ug/Kg | 79 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 99 | 81.3 | ug/Kg | 82 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 99 | 80.1 | ug/Kg | 81 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 99 | 76.1 | ug/Kg | 77 | 50 - 150 |

Sample Results

| | | |
|---------------------------|--------------------------------------|---------------------------|
| UPADAM4A03:0.5-1.2 | Collect Date 08/19/2022 15:05 | Lab ID 22208240612 |
| | Receive Date 08/23/2022 09:38 | Matrix Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 20:50 | 748446 | SLR2 | 20.95 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|--|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11CI-PF3OUdS | ND | 0.024 | 1.19 | ug/Kg | |
| 756426-58-1 | 9CI-PF3ONS | ND | 0.036 | 1.19 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.012 | 1.19 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | ND | 0.036 | 1.19 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.024 | 1.19 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.167 | 2.39 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.024 | 1.19 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | 0.048 | 1.19 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | 0.024 | 1.19 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | ND | 0.036 | 1.19 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | 0.024 | 1.19 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | 0.024 | 1.19 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.024 | 1.19 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 0.262J | 0.060 | 1.19 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | 0.095 | 1.19 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 0.024 | 1.19 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTTrDA) | ND | 0.036 | 1.19 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | 0.024 | 1.19 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 94.3 | 69.8 | ug/Kg | 74 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 94.3 | 78.3 | ug/Kg | 83 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 94.3 | 82.5 | ug/Kg | 88 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 94.3 | 86 | ug/Kg | 91 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 94.3 | 92.4 | ug/Kg | 98 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 94.3 | 75.5 | ug/Kg | 80 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 94.3 | 75.3 | ug/Kg | 80 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 94.3 | 76.4 | ug/Kg | 81 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 94.3 | 78.1 | ug/Kg | 83 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 94.3 | 76.7 | ug/Kg | 81 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 94.3 | 77.4 | ug/Kg | 82 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 94.3 | 76.6 | ug/Kg | 81 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 94.3 | 83.6 | ug/Kg | 89 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 94.3 | 81.6 | ug/Kg | 86 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 94.3 | 70.8 | ug/Kg | 75 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 94.3 | 81.2 | ug/Kg | 86 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 94.3 | 79.1 | ug/Kg | 84 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 94.3 | 81.9 | ug/Kg | 87 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 94.3 | 76.4 | ug/Kg | 81 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 94.3 | 80.3 | ug/Kg | 85 | 50 - 150 |

Sample Results

| | | |
|-------------------------|--------------------------------------|---------------------------|
| UPADAM4A02:0.5-1 | Collect Date 08/19/2022 15:15 | Lab ID 22208240613 |
| | Receive Date 08/23/2022 09:38 | Matrix Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 21:04 | 748446 | SLR2 | 11.91 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|---|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11Cl-PF3OUdS | ND | 0.022 | 1.11 | ug/Kg | |
| 756426-58-1 | 9Cl-PF3ONS | ND | 0.033 | 1.11 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.011 | 1.11 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | ND | 0.033 | 1.11 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.022 | 1.11 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.155 | 2.22 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.022 | 1.11 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.046J | 0.044 | 1.11 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | 0.022 | 1.11 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.149J | 0.033 | 1.11 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.099J | 0.022 | 1.11 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.076J | 0.022 | 1.11 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.022 | 1.11 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 2.55 | 0.055 | 1.11 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | 0.120J | 0.089 | 1.11 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 0.022 | 1.11 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTTrDA) | ND | 0.033 | 1.11 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.033J | 0.022 | 1.11 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 97.7 | 69.4 | ug/Kg | 71 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 97.7 | 79.4 | ug/Kg | 81 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 97.7 | 87.1 | ug/Kg | 89 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 97.7 | 87.9 | ug/Kg | 90 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 97.7 | 94.5 | ug/Kg | 97 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 97.7 | 80.4 | ug/Kg | 82 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 97.7 | 83.2 | ug/Kg | 85 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 97.7 | 82.5 | ug/Kg | 84 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 97.7 | 82.3 | ug/Kg | 84 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 97.7 | 81.6 | ug/Kg | 84 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 97.7 | 82.6 | ug/Kg | 85 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 97.7 | 83.3 | ug/Kg | 85 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 97.7 | 86 | ug/Kg | 88 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 97.7 | 81.7 | ug/Kg | 84 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 97.7 | 67.6 | ug/Kg | 69 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 97.7 | 84.9 | ug/Kg | 87 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 97.7 | 78.6 | ug/Kg | 80 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 97.7 | 84.7 | ug/Kg | 87 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 97.7 | 83.7 | ug/Kg | 86 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 97.7 | 82.7 | ug/Kg | 85 | 50 - 150 |

Sample Results

| | | | | |
|-------------------------------|---------------------|------------------|---------------|-------------|
| UPADAM4ASPILLWAY:0.5-2 | Collect Date | 08/19/2022 16:00 | Lab ID | 22208240614 |
| | Receive Date | 08/23/2022 09:38 | Matrix | Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 21:19 | 748446 | SLR2 | 13.28 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|---|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11Cl-PF3OUdS | ND | 0.022 | 1.11 | ug/Kg | |
| 756426-58-1 | 9Cl-PF3ONS | ND | 0.033 | 1.11 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.011 | 1.11 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | ND | 0.033 | 1.11 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.022 | 1.11 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.155 | 2.22 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.022 | 1.11 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | 0.044 | 1.11 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | 0.022 | 1.11 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | ND | 0.033 | 1.11 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.023J | 0.022 | 1.11 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | 0.022 | 1.11 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.022 | 1.11 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | 0.055 | 1.11 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | 0.089 | 1.11 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 0.022 | 1.11 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTTrDA) | ND | 0.033 | 1.11 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | 0.022 | 1.11 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 96.2 | 72.7 | ug/Kg | 76 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 96.2 | 78.4 | ug/Kg | 82 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 96.2 | 89.5 | ug/Kg | 93 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 96.2 | 88.3 | ug/Kg | 92 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 96.2 | 85.2 | ug/Kg | 89 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 96.2 | 79.4 | ug/Kg | 83 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 96.2 | 82.8 | ug/Kg | 86 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 96.2 | 83.7 | ug/Kg | 87 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 96.2 | 81.1 | ug/Kg | 84 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 96.2 | 82.7 | ug/Kg | 86 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 96.2 | 84.4 | ug/Kg | 88 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 96.2 | 86.4 | ug/Kg | 90 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 96.2 | 85.2 | ug/Kg | 89 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 96.2 | 82.5 | ug/Kg | 86 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 96.2 | 74.2 | ug/Kg | 77 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 96.2 | 85 | ug/Kg | 88 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 96.2 | 79.1 | ug/Kg | 82 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 96.2 | 85.8 | ug/Kg | 89 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 96.2 | 87.4 | ug/Kg | 91 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 96.2 | 82.5 | ug/Kg | 86 | 50 - 150 |

Sample Results

| | | |
|--------------|--------------------------------------|---------------------------|
| BD-02 | Collect Date 08/19/2022 12:00 | Lab ID 22208240615 |
| | Receive Date 08/23/2022 09:38 | Matrix Solid |

EPA 537 Mod Isotope Dilution

*Results and limits adjusted for moisture content

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 12:10 | 748285 | EPA 537 Mod Isotope Dilution | 1 | 08/26/22 21:33 | 748446 | SLR2 | 14.28 |

| CAS# | Parameter | Result | DL | LOQ | Units | |
|-----------------|---|---------------|-----------|-------|-----------|-------------|
| 763051-92-9 | 11Cl-PF3OUdS | ND | 0.022 | 1.10 | ug/Kg | |
| 756426-58-1 | 9Cl-PF3ONS | ND | 0.033 | 1.10 | ug/Kg | |
| 919005-14-4 | ADONA | ND | 0.011 | 1.10 | ug/Kg | |
| 2991-50-6 | NEtFOSAA | 0.044J | 0.033 | 1.10 | ug/Kg | |
| 2355-31-9 | NMeFOSAA | ND | 0.022 | 1.10 | ug/Kg | |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 0.153 | 2.19 | ug/Kg | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.022 | 1.10 | ug/Kg | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | 0.117J | 0.044 | 1.10 | ug/Kg | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | 0.061J | 0.022 | 1.10 | ug/Kg | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | 0.038J | 0.033 | 1.10 | ug/Kg | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.023J | 0.022 | 1.10 | ug/Kg | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | 0.048J | 0.022 | 1.10 | ug/Kg | |
| 754-91-6 | Perfluorooctane Sulfonamide (FOSA) | ND | 0.022 | 1.10 | ug/Kg | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | 2.52 | 0.055 | 1.10 | ug/Kg | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | 0.088 | 1.10 | ug/Kg | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | 0.022J | 0.022 | 1.10 | ug/Kg | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | 0.033 | 1.10 | ug/Kg | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | 0.052J | 0.022 | 1.10 | ug/Kg | |
| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
| 2355-31-9-EIS | d3-NMeFOSAA | 94 | 74.4 | ug/Kg | 79 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 94 | 83.5 | ug/Kg | 89 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 94 | 99 | ug/Kg | 105 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 94 | 104 | ug/Kg | 111 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 94 | 107 | ug/Kg | 114 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 94 | 93.9 | ug/Kg | 100 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 94 | 77.5 | ug/Kg | 83 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 94 | 79.2 | ug/Kg | 84 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 94 | 80.4 | ug/Kg | 86 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 94 | 80.5 | ug/Kg | 86 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 94 | 80.5 | ug/Kg | 86 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 94 | 78.9 | ug/Kg | 84 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 94 | 90.5 | ug/Kg | 96 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 94 | 87.6 | ug/Kg | 93 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 94 | 72.5 | ug/Kg | 77 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 94 | 83.7 | ug/Kg | 89 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 94 | 85 | ug/Kg | 90 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 94 | 87.1 | ug/Kg | 93 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 94 | 79.3 | ug/Kg | 84 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 94 | 92.5 | ug/Kg | 98 | 50 - 150 |

Sample Results

| | | |
|----------------|--------------------------------------|---------------------------|
| EQRB-02 | Collect Date 08/19/2022 13:30 | Lab ID 22208240616 |
| | Receive Date 08/23/2022 09:38 | Matrix Water |

EPA 537 Mod Isotope Dilution

| Prep Date | Prep Batch | Prep Method | Dilution | Run Date | Run Batch | Analyst | %Moisture |
|----------------|------------|------------------------------|----------|----------------|-----------|---------|-----------|
| 08/24/22 13:00 | 748297 | EPA 537 Mod Isotope Dilution | 1 | 08/27/22 18:48 | 748725 | SLR2 | NA |

| CAS# | Parameter | Result | DL | LOQ | Units |
|-------------|---|--------|-------|------|-------|
| 763051-92-9 | 11Cl-PF3OUdS | ND | 0.900 | 4.00 | ng/L |
| 756426-58-1 | 9Cl-PF3ONS | ND | 0.900 | 4.00 | ng/L |
| 919005-14-4 | ADONA | ND | 0.860 | 4.00 | ng/L |
| 2991-50-6 | NEtFOSAA | ND | 1.58 | 8.00 | ng/L |
| 2355-31-9 | NMeFOSAA | ND | 0.900 | 8.00 | ng/L |
| 13252-13-6 | Perfluoro-2-proxypropanoic acid (HFPO-DA) | ND | 6.67 | 20.0 | ng/L |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | 0.620 | 4.00 | ng/L |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | 1.44 | 4.00 | ng/L |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | 1.30 | 4.00 | ng/L |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | ND | 1.16 | 4.00 | ng/L |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | ND | 1.24 | 4.00 | ng/L |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | 0.940 | 4.00 | ng/L |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | 0.980 | 4.00 | ng/L |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | 0.760 | 4.00 | ng/L |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | 0.840 | 4.00 | ng/L |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | 1.14 | 4.00 | ng/L |
| 72629-94-8 | Perfluorotridecanoic acid (PFTTrDA) | ND | 1.23 | 4.00 | ng/L |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | 1.24 | 4.00 | ng/L |

| CAS# | Extracted Internal Standard(EIS) | Cal Area | Samp Area | Units | %Recovery | %Rec Limits |
|-----------------|----------------------------------|----------|-----------|-------|-----------|-------------|
| 2355-31-9-EIS | d3-NMeFOSAA | 100 | 80.3 | ng/L | 80 | 50 - 150 |
| 2991-50-6-EIS | d5-NEtFOSAA | 100 | 86.2 | ng/L | 86 | 50 - 150 |
| 757124-72-4-EIS | M2 4:2 FTS | 100 | 96.7 | ng/L | 97 | 50 - 150 |
| 27619-97-2-EIS | M2 6:2 FTS | 100 | 97.5 | ng/L | 97 | 50 - 150 |
| 39108-34-4-EIS | M2 8:2 FTS | 100 | 92.8 | ng/L | 93 | 50 - 150 |
| 376-06-7-EIS | M2PFTA | 100 | 66.9 | ng/L | 67 | 50 - 150 |
| 13252-13-6-EIS | M3HFPODA | 100 | 99 | ng/L | 99 | 50 - 150 |
| 375-73-5-EIS | M3PFBS | 100 | 89.9 | ng/L | 90 | 50 - 150 |
| 355-46-4-EIS | M3PFHxS | 100 | 90.7 | ng/L | 91 | 50 - 150 |
| 375-85-9-EIS | M4PFHpA | 100 | 99.5 | ng/L | 100 | 50 - 150 |
| 307-24-4-EIS | M5PFHxA | 100 | 101 | ng/L | 101 | 50 - 150 |
| 2706-90-3-EIS | M5PFPeA | 100 | 103 | ng/L | 103 | 50 - 150 |
| 335-76-2-EIS | M6PFDA | 100 | 99.8 | ng/L | 100 | 50 - 150 |
| 2058-94-8-EIS | M7PFUnA | 100 | 88.9 | ng/L | 89 | 50 - 150 |
| 754-91-6-EIS | M8FOSA | 100 | 66.6 | ng/L | 67 | 50 - 150 |
| 335-67-1-EIS | M8PFOA | 100 | 103 | ng/L | 103 | 50 - 150 |
| 1763-23-1-EIS | M8PFOS | 100 | 89.7 | ng/L | 90 | 50 - 150 |
| 375-95-1-EIS | M9PFNA | 100 | 103 | ng/L | 103 | 50 - 150 |
| 375-22-4-EIS | MPFBA | 100 | 102 | ng/L | 102 | 50 - 150 |
| 307-55-1-EIS | MPFDoA | 100 | 80.5 | ng/L | 81 | 50 - 150 |



LC-MS/MS PFAS QC Summary

| Analytical Batch | | Client ID | LCS748285 | | | | LCSD748285 | | | | | |
|---|-----------------|---------------|----------------|-------------|--------|-----|------------------|-------------|--------|-----|-----|-----------|
| 748388 | | MB748285 | 2387422 | | | | 2387424 | | | | | |
| Prep Batch | | Sample Type | LCS | | | | LCSD | | | | | |
| 748285 | | Prep Date | 08/24/22 12:10 | | | | 08/24/22 12:10 | | | | | |
| Prep Method | | Analysis Date | 08/25/22 12:30 | | | | 08/25/22 12:45 | | | | | |
| EPA 537 Mod Isotope Dilution | | Matrix | Solid | | | | Solid | | | | | |
| EPA 537 Mod Isotope Dilution | | Units Result | ug/Kg DL | Spike Added | Result | %R | Control Limits%R | Spike Added | Result | %R | RPD | RPD Limit |
| 11CI-PF3OUdS | 763051-92-9 | ND | 0.020 | 1.89 | 1.82 | 97 | 70 - 130 | 1.89 | 1.76 | 94 | 3 | 30 |
| 9CI-PF3ONS | 756426-58-1 | ND | 0.030 | 1.87 | 1.77 | 95 | 70 - 130 | 1.87 | 1.74 | 93 | 1 | 30 |
| ADONA | 919005-14-4 | ND | 0.010 | 1.89 | 1.83 | 97 | 70 - 130 | 1.89 | 1.79 | 95 | 2 | 30 |
| NEtFOSAA | 2991-50-6 | ND | 0.030 | 2.00 | 1.92 | 96 | 70 - 130 | 2.00 | 1.81 | 91 | 5 | 30 |
| NMeFOSAA | 2355-31-9 | ND | 0.020 | 2.00 | 2.10 | 105 | 70 - 130 | 2.00 | 2.03 | 102 | 3 | 30 |
| Perfluoro-2-proxypropanoic acid (HFPO-DA) | 13252-13-6 | ND | 0.140 | 4.00 | 4.00 | 100 | 70 - 130 | 4.00 | 3.90 | 97 | 3 | 30 |
| Perfluorobutanesulfonic acid (PFBS) | 375-73-5 | ND | 0.020 | 1.77 | 1.79 | 101 | 70 - 130 | 1.77 | 1.69 | 95 | 5 | 30 |
| Perfluorodecanoic acid (PFDA) | 335-76-2 | ND | 0.040 | 2.00 | 1.94 | 97 | 70 - 130 | 2.00 | 1.87 | 93 | 4 | 30 |
| Perfluorododecanoic acid (PFDoA) | 307-55-1 | ND | 0.020 | 2.00 | 2.07 | 103 | 70 - 130 | 2.00 | 1.95 | 97 | 6 | 30 |
| Perfluoroheptanoic acid (PFHpA) | 375-85-9 | ND | 0.020 | 2.00 | 1.97 | 99 | 70 - 130 | 2.00 | 1.90 | 95 | 4 | 30 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | ND | 0.030 | 1.83 | 1.77 | 97 | 70 - 130 | 1.83 | 1.71 | 94 | 3 | 30 |
| Perfluorohexanoic acid (PFHxA) | 307-24-4 | ND | 0.020 | 2.00 | 1.97 | 99 | 70 - 130 | 2.00 | 1.89 | 94 | 4 | 30 |
| Perfluorononanoic acid (PFNA) | 375-95-1 | ND | 0.020 | 2.00 | 2.01 | 100 | 70 - 130 | 2.00 | 1.93 | 97 | 4 | 30 |
| Perfluorooctane Sulfonamide (FOSA) | 754-91-6 | ND | 0.020 | 2.00 | 2.06 | 103 | 70 - 130 | 2.00 | 1.96 | 98 | 5 | 30 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | ND | 0.050 | 1.86 | 1.75 | 94 | 70 - 130 | 1.86 | 1.69 | 91 | 4 | 30 |
| Perfluorooctanoic acid (PFOA) | 335-67-1 | ND | 0.080 | 2.00 | 1.93 | 97 | 70 - 130 | 2.00 | 1.89 | 95 | 2 | 30 |
| Perfluorotetradecanoic acid (PFTA) | 376-06-7 | ND | 0.020 | 2.00 | 1.99 | 100 | 70 - 130 | 2.00 | 1.91 | 95 | 4 | 30 |
| Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | ND | 0.030 | 2.00 | 1.99 | 99 | 70 - 130 | 2.00 | 1.93 | 96 | 3 | 30 |
| Perfluoroundecanoic acid (PFUnA) | 2058-94-8 | ND | 0.020 | 2.00 | 2.05 | 103 | 70 - 130 | 2.00 | 1.93 | 97 | 6 | 30 |
| Extracted Internal Standard(EIS) | CAS# | Area | %R | CalArea | Area | %R | Limits | CalArea | Area | % | RPD | Limit |
| d3-NMeFOSAA | 2355-31-9-EIS | 70.4 | 70 | 100 | 81.2 | 81 | 50 - 150 | 100 | 87.2 | 87 | NA | NA |
| d5-NEtFOSAA | 2991-50-6-EIS | 82.1 | 82 | 100 | 88.5 | 88 | 50 - 150 | 100 | 95 | 95 | NA | NA |
| M2 4:2 FTS | 757124-72-4-EIS | 87.1 | 87 | 100 | 95.2 | 95 | 50 - 150 | 100 | 103 | 103 | NA | NA |
| M2 6:2 FTS | 27619-97-2-EIS | 82.3 | 82 | 100 | 95.2 | 95 | 50 - 150 | 100 | 105 | 105 | NA | NA |
| M2 8:2 FTS | 39108-34-4-EIS | 81.5 | 81 | 100 | 95.2 | 95 | 50 - 150 | 100 | 99.5 | 99 | NA | NA |
| M2PFTA | 376-06-7-EIS | 81 | 81 | 100 | 92.8 | 93 | 50 - 150 | 100 | 103 | 103 | NA | NA |
| M3HFPODA | 13252-13-6-EIS | 81.7 | 82 | 100 | 92.4 | 92 | 50 - 150 | 100 | 99.8 | 100 | NA | NA |
| M3PFBS | 375-73-5-EIS | 80.6 | 81 | 100 | 92.1 | 92 | 50 - 150 | 100 | 102 | 102 | NA | NA |
| M3PFHxS | 355-46-4-EIS | 84.4 | 84 | 100 | 95.6 | 96 | 50 - 150 | 100 | 104 | 104 | NA | NA |
| M4PFHpA | 375-85-9-EIS | 83.6 | 84 | 100 | 96.7 | 97 | 50 - 150 | 100 | 104 | 104 | NA | NA |
| M5PFHxA | 307-24-4-EIS | 84.9 | 85 | 100 | 97 | 97 | 50 - 150 | 100 | 106 | 106 | NA | NA |
| M5PFPeA | 2706-90-3-EIS | 84.4 | 84 | 100 | 96.6 | 97 | 50 - 150 | 100 | 105 | 105 | NA | NA |
| M6PFDA | 335-76-2-EIS | 85.2 | 85 | 100 | 96.9 | 97 | 50 - 150 | 100 | 104 | 104 | NA | NA |
| M7PFUnA | 2058-94-8-EIS | 86.1 | 86 | 100 | 94 | 94 | 50 - 150 | 100 | 103 | 103 | NA | NA |
| M8FOSA | 754-91-6-EIS | 81.2 | 81 | 100 | 88.9 | 89 | 50 - 150 | 100 | 96.8 | 97 | NA | NA |
| M8PFOA | 335-67-1-EIS | 83.1 | 83 | 100 | 96.9 | 97 | 50 - 150 | 100 | 104 | 104 | NA | NA |
| M8PFOS | 1763-23-1-EIS | 82.8 | 83 | 100 | 95.7 | 96 | 50 - 150 | 100 | 103 | 103 | NA | NA |
| M9PFNA | 375-95-1-EIS | 83.6 | 84 | 100 | 95.8 | 96 | 50 - 150 | 100 | 103 | 103 | NA | NA |
| MPFBA | 375-22-4-EIS | 84.9 | 85 | 100 | 97.1 | 97 | 50 - 150 | 100 | 105 | 105 | NA | NA |
| MPFDoA | 307-55-1-EIS | 82 | 82 | 100 | 93.6 | 94 | 50 - 150 | 100 | 101 | 101 | NA | NA |



LC-MS/MS PFAS QC Summary

| Analytical Batch | | Client ID | LCS748297 | | LCS748297 | | LCS748297 | | LCS748297 | | LCS748297 | |
|---|-----------------|---------------|----------------|---------|----------------|-----|----------------|---------|----------------|-----|----------------|-------|
| 748725 | | MB748297 | 2387542 | | 2387543 | | 2387544 | | 2387544 | | 2387544 | |
| Prep Batch | | Lab ID | MB | | LCS | | LCS | | LCS | | LCS | |
| 748297 | | Sample Type | 08/24/22 13:00 | | 08/24/22 13:00 | | 08/24/22 13:00 | | 08/24/22 13:00 | | 08/24/22 13:00 | |
| Prep Method | | Analysis Date | 08/27/22 14:54 | | 08/27/22 15:09 | | 08/27/22 15:09 | | 08/27/22 15:09 | | 08/27/22 15:23 | |
| EPA 537 Mod Isotope Dilution | | Matrix | Water | | Water | | Water | | Water | | Water | |
| EPA 537 Mod Isotope Dilution | | Units | ng/L | Spike | Result | %R | Control | Spike | Result | %R | RPD | RPD |
| | | Result | DL | Added | | | Limits | Added | | | | Limit |
| 11CI-PF3OUdS | 763051-92-9 | ND | 0.900 | 75.4 | 79.1 | 105 | 70 - 130 | 75.4 | 78.7 | 104 | 1 | 30 |
| 9CI-PF3ONS | 756426-58-1 | ND | 0.900 | 74.6 | 80.4 | 108 | 70 - 130 | 74.6 | 81.6 | 109 | 1 | 30 |
| ADONA | 919005-14-4 | ND | 0.860 | 75.6 | 75.1 | 99 | 70 - 130 | 75.6 | 76.4 | 101 | 2 | 30 |
| NEtFOSAA | 2991-50-6 | ND | 1.58 | 80.0 | 77.7 | 97 | 70 - 130 | 80.0 | 80.7 | 101 | 4 | 30 |
| NMeFOSAA | 2355-31-9 | ND | 0.900 | 80.0 | 85.5 | 107 | 70 - 130 | 80.0 | 87.1 | 109 | 2 | 30 |
| Perfluoro-2-proxypropanoic acid (HFPO-DA) | 13252-13-6 | ND | 6.67 | 160 | 165 | 103 | 70 - 130 | 160 | 169 | 106 | 2 | 30 |
| Perfluorobutanesulfonic acid (PFBS) | 375-73-5 | ND | 0.620 | 71.0 | 73.8 | 104 | 70 - 130 | 71.0 | 74.7 | 105 | 1 | 30 |
| Perfluorodecanoic acid (PFDA) | 335-76-2 | ND | 1.44 | 80.0 | 80.0 | 100 | 70 - 130 | 80.0 | 83.3 | 104 | 4 | 30 |
| Perfluorododecanoic acid (PFDoA) | 307-55-1 | ND | 1.30 | 80.0 | 86.8 | 109 | 70 - 130 | 80.0 | 85.1 | 106 | 2 | 30 |
| Perfluoroheptanoic acid (PFHpA) | 375-85-9 | ND | 1.16 | 80.0 | 82.6 | 103 | 70 - 130 | 80.0 | 82.9 | 104 | 0 | 30 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | ND | 1.24 | 73.1 | 73.4 | 100 | 70 - 130 | 73.1 | 73.5 | 100 | 0 | 30 |
| Perfluorohexanoic acid (PFHxA) | 307-24-4 | ND | 0.940 | 80.0 | 82.1 | 103 | 70 - 130 | 80.0 | 82.1 | 103 | 0 | 30 |
| Perfluorononanoic acid (PFNA) | 375-95-1 | ND | 0.980 | 80.0 | 83.8 | 105 | 70 - 130 | 80.0 | 85.4 | 107 | 2 | 30 |
| Perfluorooctane Sulfonamide (FOSA) | 754-91-6 | ND | 0.740 | 80.0 | 85.8 | 107 | 70 - 130 | 80.0 | 86.3 | 108 | 1 | 30 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | ND | 0.760 | 74.2 | 72.6 | 98 | 70 - 130 | 74.2 | 73.9 | 100 | 2 | 30 |
| Perfluorooctanoic acid (PFOA) | 335-67-1 | ND | 0.840 | 80.0 | 81.5 | 102 | 70 - 130 | 80.0 | 82.3 | 103 | 1 | 30 |
| Perfluorotetradecanoic acid (PFTA) | 376-06-7 | ND | 1.14 | 80.0 | 83.9 | 105 | 70 - 130 | 80.0 | 86.3 | 108 | 3 | 30 |
| Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | ND | 1.23 | 80.0 | 81.5 | 102 | 70 - 130 | 80.0 | 80.1 | 100 | 2 | 30 |
| Perfluoroundecanoic acid (PFUnA) | 2058-94-8 | ND | 1.24 | 80.0 | 82.3 | 103 | 70 - 130 | 80.0 | 84.0 | 105 | 2 | 30 |
| Extracted Internal Standard(EIS) | CAS# | Area | %R | CalArea | Area | %R | Limits | CalArea | Area | % | RPD | Limit |
| d3-NMeFOSAA | 2355-31-9-EIS | 94.1 | 94 | 100 | 100 | 100 | 50 - 150 | 100 | 94.4 | 94 | NA | NA |
| d5-NEtFOSAA | 2991-50-6-EIS | 101 | 101 | 100 | 107 | 107 | 50 - 150 | 100 | 96.8 | 97 | NA | NA |
| M2 4:2 FTS | 757124-72-4-EIS | 95.2 | 95 | 100 | 104 | 104 | 50 - 150 | 100 | 97.2 | 97 | NA | NA |
| M2 6:2 FTS | 27619-97-2-EIS | 97.7 | 98 | 100 | 102 | 102 | 50 - 150 | 100 | 100 | 100 | NA | NA |
| M2 8:2 FTS | 39108-34-4-EIS | 96.5 | 97 | 100 | 101 | 101 | 50 - 150 | 100 | 92.2 | 92 | NA | NA |
| M2PFTA | 376-06-7-EIS | 84.9 | 85 | 100 | 95.2 | 95 | 50 - 150 | 100 | 86.2 | 86 | NA | NA |
| M3HFPODA | 13252-13-6-EIS | 101 | 101 | 100 | 110 | 110 | 50 - 150 | 100 | 105 | 105 | NA | NA |
| M3PFBS | 375-73-5-EIS | 92.1 | 92 | 100 | 101 | 101 | 50 - 150 | 100 | 96 | 96 | NA | NA |
| M3PFHxS | 355-46-4-EIS | 89.8 | 90 | 100 | 101 | 101 | 50 - 150 | 100 | 96.8 | 97 | NA | NA |
| M4PFHpA | 375-85-9-EIS | 101 | 101 | 100 | 110 | 110 | 50 - 150 | 100 | 105 | 105 | NA | NA |
| M5PFHxA | 307-24-4-EIS | 102 | 102 | 100 | 112 | 112 | 50 - 150 | 100 | 106 | 106 | NA | NA |
| M5PFPeA | 2706-90-3-EIS | 102 | 102 | 100 | 112 | 112 | 50 - 150 | 100 | 106 | 106 | NA | NA |
| M6PFDA | 335-76-2-EIS | 104 | 104 | 100 | 113 | 113 | 50 - 150 | 100 | 103 | 103 | NA | NA |
| M7PFUnA | 2058-94-8-EIS | 95.2 | 95 | 100 | 107 | 107 | 50 - 150 | 100 | 98 | 98 | NA | NA |
| M8FOSA | 754-91-6-EIS | 83.2 | 83 | 100 | 90 | 90 | 50 - 150 | 100 | 82.4 | 82 | NA | NA |
| M8PFOA | 335-67-1-EIS | 105 | 105 | 100 | 115 | 115 | 50 - 150 | 100 | 107 | 107 | NA | NA |
| M8PFOS | 1763-23-1-EIS | 90.3 | 90 | 100 | 99.9 | 100 | 50 - 150 | 100 | 93.4 | 93 | NA | NA |
| M9PFNA | 375-95-1-EIS | 105 | 105 | 100 | 115 | 115 | 50 - 150 | 100 | 106 | 106 | NA | NA |
| MPFBA | 375-22-4-EIS | 103 | 103 | 100 | 113 | 113 | 50 - 150 | 100 | 107 | 107 | NA | NA |
| MPFDoA | 307-55-1-EIS | 91.3 | 91 | 100 | 100 | 100 | 50 - 150 | 100 | 94 | 94 | NA | NA |



CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

1 of 2
6

Company: **HDR** Billing Information:

Address: **4900 Ritter Rd Suite 101 Mechanicsburg PA 17055**

Report To: **Math Blanchard** Email To:

Copy To: **Erin Peeling** Site Collection Info/Address:

Customer Project Name/Number: **GTAC-Benner Township** State: **PA** County/City: Time Zone Collected: [] PT [] MT [] CT [] ET

Phone: Site/Facility ID #: Compliance Monitoring? [] Yes [] No

Email: Purchased By (print): **Erin Peeling** Purchase Order #: **00120765** DW PWS ID #: DW Location Code:

Collected By (signature): **[Signature]** Turnaround Date Required: **Standard** Immediately Packed on Ice: [] Yes [] No

Sample Disposal: [] Dispose as appropriate [] Return [] Archive: [] Hold: Rush: [] Same Day [] Next Day [] 2 Day [] 3 Day [] 4 Day [] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [] Yes [] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

| Customer Sample ID | Matrix * | Comp / Grab | Collected (or Composite Start) | | Composite End | | Res Cl | # of Ctns |
|--------------------|----------|-------------|--------------------------------|------|---------------|------|--------|-----------|
| | | | Date | Time | Date | Time | | |
| Fillmore ROW 01 | 0.5-1.7 | Soil G | | | 8/18/22 | 1020 | | 1 |
| PANG02 | 0.25-1.7 | Soil G | | | | 1410 | | 1 |
| PANG01 | 0.5-2 | Soil G | | | | 1445 | | 1 |
| UPAPANG01 | 0.5-0.85 | G | | | | 1535 | | 1 |
| EQ RB-01 | Water | G | | | | 1545 | | 2 |
| BD-01 | Soil | G | | | | 1700 | | 1 |
| UPADam1A01 | 0.5-2 | G | | | 8/19/22 | 0925 | | 1 |
| UPADam1A02 | 0.5-2 | G | | | | 0955 | | 1 |
| UPADam1A03 | 0.5-2 | G | | | | 1105 | | 1 |
| UPADam1A Spillway | 0.5-1.7 | G | | | | 1210 | | 1 |

PFS-18 Compounds - See Quote

ALL SHAD

Container Preservative Ty

Client ID: 5240 - HDR Engineering

SDG: 222082406



PM: KAN

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (6) methanol, (7) sodium bisulfate, (8) sodium hydroxide, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved

Analyses

Custody Seals Present/Intact Y N NA
 Custody Signatures Present Y N NA
 Collector Signature Present Y N NA
 Bottles Intact Y N NA
 Correct Bottles Y N NA
 Sufficient Volume Y N NA
 Samples Received on Ice Y N NA
 VOA - Headspace Acceptable Y N NA
 USDA Regulated Soils Y N NA
 Samples in Holding Time Y N NA
 Residual Chlorine Present Y N NA
 Cl Strips: _____
 Sample pH Acceptable Y N NA
 pH Strips: _____
 Sulfide Present Y N NA
 Lead Acetate Strips: _____

LAB USE ONLY: Lab Sample # / Comments:

1
2
3
4
5
6
7
8
9
10

Customer Remarks / Special Conditions / Possible Hazards: Type of Ice Used: Wet Blue Dry None SHORT HOLDS PRESENT (<72 hours): Y N N/A

Packing Material Used: **5344 4102 588C** Lab Tracking #: **2812284**

Radchem sample(s) screened (<500 cpm): Y N NA Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:

Temp Blank Received: Y N NA
 Therm ID#: _____
 Cooler 1 Temp Upon Receipt: _____ oC
 Cooler 1 Therm Corr. Factor: _____ oC
 Cooler 1 Corrected Temp: _____ oC
 Comments:

| | | | |
|---|---------------------------------|---|---------------------------------|
| Relinquished by/Company: (Signature) [Signature] | Date/Time: 1835 08/19/22 | Received by/Company: (Signature) RDS HACE | Date/Time: 08/19/22 1845 |
| Relinquished by/Company: (Signature) RDS HACE | Date/Time: 8/19/22 2230 | Received by/Company: (Signature) | Date/Time: |
| Relinquished by/Company: (Signature) FedEx | Date/Time: 8-23-22 0938 | Received by/Company: (Signature) [Signature] | Date/Time: 8-23-22 0938 |

Table #: **5.6E42**

Acctnum: _____
 Template: _____
 Prelogin: _____
 PM: _____
 PB: _____

Trip Blank Received: Y N NA
 HCL MeOH TSP Other

Non Conformance(s): Page: **1**
 YES / NO of: **1**

CHAIN-OF-CUSTODY Analytical Request Document
 Pace Analytical®
 Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: **HDR** Billing Information:
 Address: **4900 Ritter Rd Suite 101**
 Report To: **Matt Blanchard** Email To: **MB-onfile**
 Copy To: **Erin Peeling** Site Collection Info/Address:
 Customer Project Name/Number: **GTAC - Benner Township** State: **PA** County/City: _____ Time Zone Collected: [] PT [] MT [] CT [] ET
 Phone: _____ Site/Facility ID #: _____ Compliance Monitoring? [] Yes [] No
 Email: _____
 Collected By (print): **HDR - Erin Peeling** Purchase Order #: _____ DW PWS ID #: _____
 Quote #: **00120765** DW Location Code: _____
 Collected By (signature): *[Signature]* Turnaround Date Required: **Standard** Immediately Packed on Ice: [] Yes [] No
 Sample Disposal: [] Archive: _____ [] Hold: _____ Rush: [] Same Day [] Next Day [] 2 Day [] 3 Day [] 4 Day [] 5 Day (Expedite Charges Apply)
 Field Filtered (if applicable): [] Yes [] No
 Analysis: _____
 * Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

LAB USE ONLY - Affix Work
ALL SHAD
 Container Preservative Type: _____
 Client ID: **5240 - HDR Engineering**
 SDG: **222082406**
 PM: **KAN**



** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

| Customer Sample ID | Matrix * | Comp / Grab | Collected (or Composite Start) | | Composite End | | Res Cl | # of Ctns | PFAS - 18 parameters | |
|------------------------|----------|-------------|--------------------------------|------|---------------|------|--------|-----------|----------------------|---|
| | | | Date | Time | Date | Time | | | | |
| UPADam4A01:0.5-2 | Soil | G | Z | ✓ | 8/19/22 | 1320 | | 1 | X | |
| UPADam4A03:0.5-1.2 | Soil | G | | | | 1505 | | 1 | 1 | X |
| UPADam4A02:0.5-1 | Soil | G | | | | 1515 | | 1 | 1 | X |
| UPADam4ASpillway:0.5-2 | Soil | G | | | | 1600 | | 1 | 1 | X |
| BD-02 | Soil | G | | | | 1206 | | 1 | 1 | X |
| EGRB-02 | Water | G | | | | 1330 | | 2 | 2 | X |

| Analyses | | | | | | | | | | Lab Profile/Line: |
|----------|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | Lab Sample Receipt Checklist: Custody Seals Present/Intact Y N NA Custody Signatures Present Y N NA Collector Signature Present Y N NA Bottles Intact Y N NA Correct Bottles Y N NA Sufficient Volume Y N NA Samples Received on Ice Y N NA VOA - Headspace Acceptable Y N NA USDA Regulated Soils Y N NA Samples in Holding Time Y N NA Residual Chlorine Present Y N NA Cl Strips: _____ Sample pH Acceptable Y N NA pH Strips: _____ Sulfide Present Y N NA Lead Acetate Strips: _____ LAB USE ONLY: Lab Sample # / Comments: |

Customer Remarks / Special Conditions / Possible Hazards: _____
 Type of Ice Used: Wet Blue Dry None
 SHORT HOLDS PRESENT (<72 hours): Y N N/A
 Packing Material Used: _____
 Lab Tracking #: **2812283**
 Radchem sample(s) screened (<500 cpm): Y N NA
 Samples received via: FEDEX UPS Client Courier Pace Courier

| | | | | |
|--|-----------------------------|--|----------------------------|---|
| Relinquished by/Company: (Signature) <i>[Signature]</i> / HDR | Date/Time: 08/19/22 1835 | Received by/Company: (Signature) RDS - ACE | Date/Time: 8/19/22 1845 | MTJL LAB USE ONLY Table #: Acctnum: Template: Prelogin: PM: PB: |
| Relinquished by/Company: (Signature) RDS - ACE | Date/Time: 8/19/22 2030 | Received by/Company: (Signature) | Date/Time: | |
| Relinquished by/Company: (Signature) FedEx | Date/Time: 8-23-22 0938 | Received by/Company: (Signature) <i>[Signature]</i> | Date/Time: 8-23-22 0938 | |

Trip Blank Received: Y N NA
 HCL MeOH TSP Other
 Non Conformance(s): YES / NO
 Page: 2 of 2



SAMPLE RECEIVING CHECKLIST



| SAMPLE DELIVERY GROUP 222082406 | | CHECKLIST | | YES | NO |
|---------------------------------|--|------------------|------------------|-------------------------------------|-------------------------------------|
| Client | PM KAN 5240 - HDR Engineering | Transport Method | FEDEX | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Profile Number | 300134 | Received By | Perkins, Brennan | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Line Item(s) | 1 - 001 Solids 2 - 001 Water | Receive Date(s) | 08/23/22 | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | | | | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | | | | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| COOLERS | | DISCREPANCIES | | LAB PRESERVATIONS | |
| Airbill | Thermometer ID: E42 | Temp °C | None | None | |
| 5344 4102 5886 | | 5.6 | | | |
| NOTES | DID NOT RECEIVE SAMPLE -07 LISTED ON COC | | | | |