

# ANALYTICAL REPORT

## PREPARED FOR

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## JOB DESCRIPTION

INTERA - Red-Hill-Incident  
Site D2 PFAS 1633

## JOB NUMBER

380-219931-1

# Eurofins Pomona

## Job Notes

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The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Drinking Water and Wastewater West, LLC Project Manager.

## Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.  
(DW, Water matrices)

## Authorization



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## Definitions/Glossary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

### Qualifiers

#### LCMS

| Qualifier | Qualifier Description                                                                |
|-----------|--------------------------------------------------------------------------------------|
| *5+       | Isotope dilution analyte is outside acceptance limits, high biased.                  |
| ^+        | Continuing Calibration Verification (CCV) is outside acceptance limits, high biased. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| ☼              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |
| MQL            | Method Quantitation Limit                                                                                   |
| NC             | Not Calculated                                                                                              |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)                                                |
| NEG            | Negative / Absent                                                                                           |
| POS            | Positive / Present                                                                                          |
| PQL            | Practical Quantitation Limit                                                                                |
| PRES           | Presumptive                                                                                                 |
| QC             | Quality Control                                                                                             |
| RER            | Relative Error Ratio (Radiochemistry)                                                                       |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)                                                         |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)                                                                         |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)                                                                       |
| TNTC           | Too Numerous To Count                                                                                       |

# Case Narrative

Client: City & County of Honolulu  
Project: INTERA - Red-Hill-Incident

Job ID: 380-219931-1

**Job ID: 380-219931-1**

**Eurofins Pomona**

## Job Narrative 380-219931-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

### Receipt

The sample was received on 6/16/2026 9:20 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.7°C.

### PFAS

Method QSM B-24: If aqueous samples were extracted beyond 7 days from collection, NMeFOSE, NEtFOSE, NMeFOSAA, and NEtFOSAA may be affected. If soil or tissue samples were extracted beyond 3 days from collection, NFDHA may be affected. If sample extracts, regardless of matrix, were analyzed beyond 28 days from extraction, 9Cl-PF3ONS and 11Cl-PF3OUdS may be affected. Per DoD Environmental Data Quality Workgroup Memorandum dated March 27, 2025, none of these analytes have associated regulatory limits or toxicity factors, thus any additional uncertainty associated with a holding time exceedance for these analytes will not affect current decision making and the DoD is willing to accept any additional uncertainty.

Method QSM B-24: The low level continuing calibration verification (CCVL) and continuing calibration verification (CCV) associated with batch 320-923426 recovered above the upper control limit for one or more of the following isotope dilution analyte (IDA): d3-NMeFOSAA and d7-N-MeFOSE-M. The associated target analytes, N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) and N-methylperfluorooctane sulfonamidoethanol (NMeFOSE), were within control limits in the CCV. The client samples were in control for the affected IDA. The method blank (MB) and client samples associated with this CCV were non-detects for the associated target analytes, the low level laboratory control sample, laboratory control sample, and laboratory control sample duplicate (LLCS/LCS/LCSD) recoveries were in control for the associated target analyte; therefore, the data have been reported. The associated samples are impacted: BWS2254-D2-AQ (380-219931-1), (CCV 320-923426/16), (CCV 320-923426/24), (CCV 320-923426/37), (CCVL 320-923426/4), (LCS 320-923254/3-A), (LCSD 320-923254/4-A), (LLCS 320-923254/2-A) and (MB 320-923254/1-A).

Method QSM B-24: The following continuing calibration blank (CCB) was flagged for Isotope Dilution Analyte (IDA) recovery above the method recommended limit: (CCB 320-923426/17) and (CCB 320-923426/38). As the CCB was non-detect for all native analytes, there is no adverse impact on data quality; therefore, the data have been reported.

Method QSM B-24: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: (LCS 320-923254/3-A) and (LLCS 320-923254/2-A). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method QSM B-24: The continuing calibration verification (CCV) associated with batch 320-923426 recovered above the upper control limit for 4,8-Dioxa-3H-perfluorononanoic acid (ADONA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are: BWS2254-D2-AQ (380-219931-1) and (CCV 320-923426/24).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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## Detection Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

**Client Sample ID: BWS2254-D2-AQ**

**Lab Sample ID: 380-219931-1**

| Analyte                              | Result | Qualifier | RL  | Unit | Dil Fac | D | Method   | Prep Type |
|--------------------------------------|--------|-----------|-----|------|---------|---|----------|-----------|
| Perfluorooctanoic acid (PFOA)        | 4.8    |           | 1.5 | ng/L | 1       |   | QSM B-24 | Total/NA  |
| Perfluorohexanesulfonic acid (PFHxS) | 9.6    |           | 1.5 | ng/L | 1       |   | QSM B-24 | Total/NA  |

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-219931-1

Date Collected: 06/15/26 12:00

Matrix: Water

Date Received: 06/16/26 09:20

## Method: DoD 6.0 QSM B-24 - PFAS for QSM 6.0, Table B-24

| Analyte                                                  | Result  | Qualifier | RL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------------------|---------|-----------|-----|------|---|----------------|----------------|---------|
| Perfluorobutanoic acid (PFBA)                            | <3.1    |           | 3.1 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluoropentanoic acid (PFPeA)                          | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorohexanoic acid (PFHxA)                           | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluoroheptanoic acid (PFHpA)                          | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorooctanoic acid (PFOA)                            | 4.8     |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorononanoic acid (PFNA)                            | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorodecanoic acid (PFDA)                            | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluoroundecanoic acid (PFUnA)                         | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorododecanoic acid (PFDoA)                         | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorotridecanoic acid (PFTrDA)                       | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorotetradecanoic acid (PFTeDA)                     | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorobutanesulfonic acid (PFBS)                      | <3.1    |           | 3.1 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluoropentanesulfonic acid (PFPeS)                    | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorohexanesulfonic acid (PFHxS)                     | 9.6     |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluoroheptanesulfonic acid (PFHpS)                    | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorooctanesulfonic acid (PFOS)                      | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorononanesulfonic acid (PFNS)                      | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorodecanesulfonic acid (PFDS)                      | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorododecanesulfonic acid (PFDoS)                   | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)      | <3.1    |           | 3.1 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)      | <3.1    |           | 3.1 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)      | <3.1    |           | 3.1 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluorooctanesulfonamide (PFOSA)                       | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| N-methylperfluorooctane sulfonamide (NMeFOSA)            | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| N-ethylperfluorooctane sulfonamide (NEtFOSA)             | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)  | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)     | <7.6    |           | 7.6 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)      | <7.6    |           | 7.6 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)           | <1.1    |           | 1.1 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 4,8-Dioxo-3H-perfluorononanoic acid (ADONA)              | <1.5 ^+ |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluoro-4-methoxybutanoic acid (PFMBA)                 | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)               | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluoro-3-methoxypropanoic acid (PFMPA)                | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid       | <1.5    |           | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |

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# Client Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-219931-1

Date Collected: 06/15/26 12:00

Matrix: Water

Date Received: 06/16/26 09:20

## Method: DoD 6.0 QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

| Analyte                                                 | Result    | Qualifier | RL       | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------------------------|-----------|-----------|----------|------|---|----------------|----------------|---------|
| 11-Chloroeicosafluoro-3-oxaundecan<br>e-1-sulfonic acid | <1.5      |           | 1.5      | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Perfluoro (2-ethoxyethane) sulfonic<br>acid (PFESA)     | <1.5      |           | 1.5      | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 3-Perfluoropropylpropanoic acid (3:3<br>FTCA)           | <3.1      |           | 3.1      | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 3-Perfluoropentylpropanoic acid (5:3<br>FTCA)           | <7.6      |           | 7.6      | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 3-Perfluoroheptylpropanoic acid (7:3<br>FTCA)           | <7.6      |           | 7.6      | ng/L |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| Isotope Dilution                                        | %Recovery | Qualifier | Limits   |      |   | Prepared       | Analyzed       | Dil Fac |
| 13C4 PFBA                                               | 107       |           | 5 - 130  |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C5 PFPeA                                              | 90.2      |           | 40 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C5 PFHxA                                              | 93.3      |           | 40 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C4 PFHpA                                              | 112       |           | 40 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C8 PFOA                                               | 103       |           | 40 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C9 PFNA                                               | 102       |           | 40 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C6 PFDA                                               | 86.4      |           | 40 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C7 PFUnA                                              | 92.4      |           | 30 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C2 PFDoA                                              | 87.5      |           | 10 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C2 PFTeDA                                             | 73.1      |           | 10 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C6 PFTriDA                                            | 73.2      |           | 20 - 150 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C3 PFBS                                               | 97.3      |           | 40 - 135 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C3 PFHxS                                              | 109       |           | 40 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C8 PFOS                                               | 122       |           | 40 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C8 PFOSA                                              | 118       |           | 40 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| d3-NMeFOSAA                                             | 125       |           | 40 - 170 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| d5-NEtFOSAA                                             | 88.3      |           | 25 - 135 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C2 4:2 FTS                                            | 107       |           | 40 - 200 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C2 6:2 FTS                                            | 98.5      |           | 40 - 200 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C2 8:2 FTS                                            | 85.2      |           | 40 - 300 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C3 HFPO-DA                                            | 67.9      |           | 40 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| d7-N-MeFOSE-M                                           | 102       |           | 10 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| d9-N-EtFOSE-M                                           | 93.9      |           | 10 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| d5-NEtPFOSA                                             | 79.9      |           | 10 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| d3-NMePFOSA                                             | 82.3      |           | 10 - 130 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C3-3:3 FTCA                                           | 84.2      |           | 20 - 150 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |
| 13C3-5:3 FTCA                                           | 98.0      |           | 20 - 150 |      |   | 06/23/26 05:56 | 06/24/26 14:46 | 1       |



## Action Limit Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-219931-1

### Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

| Analyte                                        | Result | Qualifier | Unit | EPAMCL | RL  | Method   | Prep Type |
|------------------------------------------------|--------|-----------|------|--------|-----|----------|-----------|
|                                                |        |           |      | Limit  |     |          |           |
| Perfluorooctanoic acid (PFOA)                  | 4.8    |           | ng/L | 4      | 1.5 | QSM B-24 | Total/NA  |
| Perfluorononanoic acid (PFNA)                  | <1.5   |           | ng/L | 10     | 1.5 | QSM B-24 | Total/NA  |
| Perfluorohexanesulfonic acid (PFHxS)           | 9.6    |           | ng/L | 10     | 1.5 | QSM B-24 | Total/NA  |
| Perfluorooctanesulfonic acid (PFOS)            | <1.5   |           | ng/L | 4      | 1.5 | QSM B-24 | Total/NA  |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | <1.1   |           | ng/L | 10     | 1.1 | QSM B-24 | Total/NA  |

# Isotope Dilution Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID       | Client Sample ID       | PFBA<br>(5-130) | PFPeA<br>(40-130) | 13C5PHA<br>(40-130) | C4PFHA<br>(40-130) | C8PFOA<br>(40-130) | C9PFNA<br>(40-130) | C6PFDA<br>(40-130) | 13C7PUA<br>(30-130) |
|---------------------|------------------------|-----------------|-------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| 380-219931-1        | BWS2254-D2-AQ          | 107             | 90.2              | 93.3                | 112                | 103                | 102                | 86.4               | 92.4                |
| LCS 320-923254/3-A  | Lab Control Sample     | 98.4            | 120               | 102                 | 135 *5+            | 105                | 95.6               | 86.9               | 107                 |
| LCSD 320-923254/4-A | Lab Control Sample Dup | 104             | 101               | 93.5                | 115                | 105                | 121                | 95.9               | 107                 |
| LLCS 320-923254/2-A | Lab Control Sample     | 103             | 116               | 96.0                | 135 *5+            | 93.9               | 112                | 87.2               | 108                 |
| MB 320-923254/1-A   | Method Blank           | 99.5            | 103               | 84.7                | 110                | 106                | 113                | 89.5               | 106                 |

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID       | Client Sample ID       | PFDaA<br>(10-130) | PFTDA<br>(10-130) | C6PFTTrDA<br>(20-150) | C3PFBS<br>(40-135) | C3PFHS<br>(40-130) | C8PFOS<br>(40-130) | PFOSA<br>(40-130) | d3NMFOS<br>(40-170) |
|---------------------|------------------------|-------------------|-------------------|-----------------------|--------------------|--------------------|--------------------|-------------------|---------------------|
| 380-219931-1        | BWS2254-D2-AQ          | 87.5              | 73.1              | 73.2                  | 97.3               | 109                | 122                | 118               | 125                 |
| LCS 320-923254/3-A  | Lab Control Sample     | 89.8              | 78.4              | 81.4                  | 97.2               | 107                | 125                | 114               | 120                 |
| LCSD 320-923254/4-A | Lab Control Sample Dup | 92.2              | 81.5              | 90.2                  | 100                | 103                | 126                | 113               | 123                 |
| LLCS 320-923254/2-A | Lab Control Sample     | 106               | 85.1              | 86.4                  | 102                | 102                | 122                | 114               | 114                 |
| MB 320-923254/1-A   | Method Blank           | 101               | 84.8              | 90.9                  | 102                | 101                | 113                | 109               | 112                 |

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID       | Client Sample ID       | d5NEFOS<br>(25-135) | M242FTS<br>(40-200) | M262FTS<br>(40-200) | M282FTS<br>(40-300) | HFPODA<br>(40-130) | NMFM<br>(10-130) | NEFM<br>(10-130) | d5NPFSA<br>(10-130) |
|---------------------|------------------------|---------------------|---------------------|---------------------|---------------------|--------------------|------------------|------------------|---------------------|
| 380-219931-1        | BWS2254-D2-AQ          | 88.3                | 107                 | 98.5                | 85.2                | 67.9               | 102              | 93.9             | 79.9                |
| LCS 320-923254/3-A  | Lab Control Sample     | 92.7                | 84.6                | 89.3                | 89.4                | 85.5               | 104              | 98.1             | 91.6                |
| LCSD 320-923254/4-A | Lab Control Sample Dup | 86.5                | 100                 | 87.2                | 96.2                | 72.9               | 104              | 99.0             | 88.2                |
| LLCS 320-923254/2-A | Lab Control Sample     | 92.1                | 95.0                | 83.3                | 92.8                | 81.9               | 100              | 94.7             | 81.8                |
| MB 320-923254/1-A   | Method Blank           | 81.8                | 98.3                | 85.9                | 89.8                | 70.4               | 103              | 99.6             | 91.0                |

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID       | Client Sample ID       | d3NMFSA<br>(10-130) | 13-3:3 FTC/<br>(20-150) | 13-5:3 FTC/<br>(20-150) |
|---------------------|------------------------|---------------------|-------------------------|-------------------------|
| 380-219931-1        | BWS2254-D2-AQ          | 82.3                | 84.2                    | 98.0                    |
| LCS 320-923254/3-A  | Lab Control Sample     | 87.1                | 95.3                    | 103                     |
| LCSD 320-923254/4-A | Lab Control Sample Dup | 84.8                | 89.2                    | 93.1                    |
| LLCS 320-923254/2-A | Lab Control Sample     | 81.5                | 101                     | 108                     |
| MB 320-923254/1-A   | Method Blank           | 85.9                | 85.7                    | 89.3                    |

### Surrogate Legend

PFBA = 13C4 PFBA  
PFPeA = 13C5 PFPeA  
13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDaA = 13C2 PFDaA  
PFTDA = 13C2 PFTeDA  
C6PFTTrDA = 13C6 PFTTrDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
PFOSA = 13C8 PFOSA  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
M242FTS = 13C2 4:2 FTS

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Isotope Dilution Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

M262FTS = 13C2 6:2 FTS

M282FTS = 13C2 8:2 FTS

HFPODA = 13C3 HFPO-DA

NMFM = d7-N-MeFOSE-M

NEFM = d9-N-EtFOSE-M

d5NPFSA = d5-NEtPFOSA

d3NMFSA = d3-NMePFOSA

C3-3:3 FTCA = 13C3-3:3 FTCA

C3-5:3 FTCA = 13C3-5:3 FTCA

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

|    |
|----|
| 1  |
| 2  |
| 3  |
| 4  |
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| 14 |
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| 16 |

# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24

Lab Sample ID: MB 320-923254/1-A

Matrix: Water

Analysis Batch: 923426

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 923254

| Analyte                                                  | MB<br>Result | MB<br>Qualifier | RL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------------------|--------------|-----------------|-----|------|---|----------------|----------------|---------|
| Perfluorobutanoic acid (PFBA)                            | <4.0         |                 | 4.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluoropentanoic acid (PFPeA)                          | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorohexanoic acid (PFHxA)                           | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluoroheptanoic acid (PFHpA)                          | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorooctanoic acid (PFOA)                            | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorononanoic acid (PFNA)                            | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorodecanoic acid (PFDA)                            | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluoroundecanoic acid (PFUnA)                         | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorododecanoic acid (PFDoA)                         | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorotridecanoic acid (PFTriDA)                      | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorotetradecanoic acid (PFTeDA)                     | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorobutanesulfonic acid (PFBS)                      | <4.0         |                 | 4.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluoropentanesulfonic acid (PFPeS)                    | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorohexanesulfonic acid (PFHxS)                     | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluoroheptanesulfonic acid (PFHpS)                    | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorooctanesulfonic acid (PFOS)                      | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorononanesulfonic acid (PFNS)                      | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorodecanesulfonic acid (PFDS)                      | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorododecanesulfonic acid (PFDoS)                   | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)      | <4.0         |                 | 4.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)      | <4.0         |                 | 4.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)      | <4.0         |                 | 4.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluorooctanesulfonamide (PFOSA)                       | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| N-methylperfluorooctane sulfonamide (NMeFOSA)            | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| N-ethylperfluorooctane sulfonamide (NEtFOSA)             | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)  | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)     | <10          |                 | 10  | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)      | <10          |                 | 10  | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)           | <1.5         |                 | 1.5 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 4,8-Dioxo-3H-perfluorononanoic acid (ADONA)              | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluoro-4-methoxybutanoic acid (PFMBA)                 | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Nonfluoro-3,6-dioxahexanoic acid (NFDHA)                 | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluoro-3-methoxypropanoic acid (PFMPA)                | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid       | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: MB 320-923254/1-A

Matrix: Water

Analysis Batch: 923426

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 923254

| Analyte                                                 | MB<br>Result | MB<br>Qualifier | RL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------------------------|--------------|-----------------|-----|------|---|----------------|----------------|---------|
| 11-Chloroeicosafluoro-3-oxaundecan<br>e-1-sulfonic acid | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| Perfluoro (2-ethoxyethane) sulfonic<br>acid (PFEEESA)   | <2.0         |                 | 2.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 3-Perfluoropropylpropanoic acid (3:3<br>FTCA)           | <4.0         |                 | 4.0 | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 3-Perfluoropentylpropanoic acid (5:3<br>FTCA)           | <10          |                 | 10  | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 3-Perfluoroheptylpropanoic acid (7:3<br>FTCA)           | <10          |                 | 10  | ng/L |   | 06/23/26 05:56 | 06/24/26 07:06 | 1       |

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 13C4 PFBA        | 99.5            |                 | 5 - 130  | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C5 PFPeA       | 103             |                 | 40 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C5 PFHxA       | 84.7            |                 | 40 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C4 PFHpA       | 110             |                 | 40 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C8 PFOA        | 106             |                 | 40 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C9 PFNA        | 113             |                 | 40 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C6 PFDA        | 89.5            |                 | 40 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C7 PFUnA       | 106             |                 | 30 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C2 PFDoA       | 101             |                 | 10 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C2 PFTeDA      | 84.8            |                 | 10 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C6 PFTrDA      | 90.9            |                 | 20 - 150 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C3 PFBS        | 102             |                 | 40 - 135 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C3 PFHxS       | 101             |                 | 40 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C8 PFOS        | 113             |                 | 40 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C8 PFOSA       | 109             |                 | 40 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| d3-NMeFOSAA      | 112             |                 | 40 - 170 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| d5-NEtFOSAA      | 81.8            |                 | 25 - 135 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C2 4:2 FTS     | 98.3            |                 | 40 - 200 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C2 6:2 FTS     | 85.9            |                 | 40 - 200 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C2 8:2 FTS     | 89.8            |                 | 40 - 300 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C3 HFPO-DA     | 70.4            |                 | 40 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| d7-N-MeFOSE-M    | 103             |                 | 10 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| d9-N-EtFOSE-M    | 99.6            |                 | 10 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| d5-NEtPFOSA      | 91.0            |                 | 10 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| d3-NMePFOSA      | 85.9            |                 | 10 - 130 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C3-3:3 FTCA    | 85.7            |                 | 20 - 150 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |
| 13C3-5:3 FTCA    | 89.3            |                 | 20 - 150 | 06/23/26 05:56 | 06/24/26 07:06 | 1       |

Lab Sample ID: LCS 320-923254/3-A

Matrix: Water

Analysis Batch: 923426

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 923254

| Analyte                         | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec<br>Limits |
|---------------------------------|----------------|---------------|------------------|------|---|------|----------------|
| Perfluorobutanoic acid (PFBA)   | 80.0           | 72.9          |                  | ng/L |   | 91   | 70 - 140       |
| Perfluoropentanoic acid (PFPeA) | 40.0           | 36.4          |                  | ng/L |   | 91   | 65 - 135       |
| Perfluorohexanoic acid (PFHxA)  | 40.0           | 39.8          |                  | ng/L |   | 100  | 70 - 145       |
| Perfluoroheptanoic acid (PFHpA) | 40.0           | 35.3          |                  | ng/L |   | 88   | 70 - 150       |
| Perfluorooctanoic acid (PFOA)   | 40.0           | 37.5          |                  | ng/L |   | 94   | 70 - 150       |

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCS 320-923254/3-A

Matrix: Water

Analysis Batch: 923426

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 923254

| Analyte                                                  | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Perfluorononanoic acid (PFNA)                            | 40.0        | 40.2       |               | ng/L |   | 101  | 70 - 150    |
| Perfluorodecanoic acid (PFDA)                            | 40.0        | 35.9       |               | ng/L |   | 90   | 70 - 140    |
| Perfluoroundecanoic acid (PFUnA)                         | 40.0        | 36.6       |               | ng/L |   | 91   | 70 - 145    |
| Perfluorododecanoic acid (PFDoA)                         | 40.0        | 38.0       |               | ng/L |   | 95   | 70 - 140    |
| Perfluorotridecanoic acid (PFTrDA)                       | 40.0        | 43.7       |               | ng/L |   | 109  | 65 - 140    |
| Perfluorotetradecanoic acid (PFTeDA)                     | 40.0        | 34.9       |               | ng/L |   | 87   | 60 - 140    |
| Perfluorobutanesulfonic acid (PFBS)                      | 71.0        | 54.7       |               | ng/L |   | 77   | 60 - 145    |
| Perfluoropentanesulfonic acid (PFPeS)                    | 37.6        | 35.6       |               | ng/L |   | 95   | 65 - 140    |
| Perfluorohexanesulfonic acid (PFHxS)                     | 36.5        | 30.5       |               | ng/L |   | 84   | 65 - 145    |
| Perfluoroheptanesulfonic acid (PFHpS)                    | 38.2        | 36.9       |               | ng/L |   | 97   | 70 - 150    |
| Perfluorooctanesulfonic acid (PFOS)                      | 37.2        | 31.9       |               | ng/L |   | 86   | 55 - 150    |
| Perfluorononanesulfonic acid (PFNS)                      | 38.5        | 33.7       |               | ng/L |   | 88   | 65 - 145    |
| Perfluorodecanesulfonic acid (PFDS)                      | 38.6        | 40.2       |               | ng/L |   | 104  | 60 - 145    |
| Perfluorododecanesulfonic acid (PFDoS)                   | 38.8        | 31.6       |               | ng/L |   | 82   | 50 - 145    |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)      | 75.0        | 78.9       |               | ng/L |   | 105  | 70 - 145    |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)      | 76.2        | 85.0       |               | ng/L |   | 112  | 65 - 155    |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)      | 76.8        | 85.6       |               | ng/L |   | 111  | 60 - 150    |
| Perfluorooctanesulfonamide (PFOSA)                       | 40.0        | 41.7       |               | ng/L |   | 104  | 70 - 145    |
| N-methylperfluorooctane sulfonamide (NMeFOSA)            | 40.0        | 36.2       |               | ng/L |   | 91   | 60 - 150    |
| N-ethylperfluorooctane sulfonamide (NEtFOSA)             | 40.0        | 36.0       |               | ng/L |   | 90   | 65 - 145    |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.0        | 39.5       |               | ng/L |   | 99   | 50 - 140    |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)  | 40.0        | 38.8       |               | ng/L |   | 97   | 70 - 145    |
| N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)     | 200         | 199        |               | ng/L |   | 99   | 70 - 145    |
| N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)      | 200         | 196        |               | ng/L |   | 98   | 70 - 135    |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)           | 30.0        | 32.5       |               | ng/L |   | 108  | 70 - 140    |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA)              | 37.8        | 47.3       |               | ng/L |   | 125  | 65 - 145    |
| Perfluoro-4-methoxybutanoic acid (PFMBA)                 | 40.0        | 35.0       |               | ng/L |   | 88   | 60 - 150    |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)               | 40.0        | 41.0       |               | ng/L |   | 102  | 50 - 150    |

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCS 320-923254/3-A

Matrix: Water

Analysis Batch: 923426

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 923254

| Analyte                                             | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Perfluoro-3-methoxypropanoic acid (PFMPA)           | 40.0        | 34.8       |               | ng/L |   | 87   | 55 - 140    |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid  | 37.4        | 33.9       |               | ng/L |   | 91   | 70 - 155    |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | 37.8        | 35.1       |               | ng/L |   | 93   | 55 - 160    |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)  | 35.7        | 30.0       |               | ng/L |   | 84   | 70 - 140    |
| 3-Perfluoropropylpropanoic acid (3:3 FTCA)          | 80.0        | 83.9       |               | ng/L |   | 105  | 65 - 130    |
| 3-Perfluoropentylpropanoic acid (5:3 FTCA)          | 200         | 219        |               | ng/L |   | 110  | 70 - 135    |
| 3-Perfluoroheptylpropanoic acid (7:3 FTCA)          | 200         | 208        |               | ng/L |   | 104  | 50 - 145    |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| 13C4 PFBA        | 98.4          |               | 5 - 130  |
| 13C5 PFPeA       | 120           |               | 40 - 130 |
| 13C5 PFHxA       | 102           |               | 40 - 130 |
| 13C4 PFHpA       | 135           | *5+           | 40 - 130 |
| 13C8 PFOA        | 105           |               | 40 - 130 |
| 13C9 PFNA        | 95.6          |               | 40 - 130 |
| 13C6 PFDA        | 86.9          |               | 40 - 130 |
| 13C7 PFUnA       | 107           |               | 30 - 130 |
| 13C2 PFDoA       | 89.8          |               | 10 - 130 |
| 13C2 PFTeDA      | 78.4          |               | 10 - 130 |
| 13C6 PFTrDA      | 81.4          |               | 20 - 150 |
| 13C3 PFBS        | 97.2          |               | 40 - 135 |
| 13C3 PFHxS       | 107           |               | 40 - 130 |
| 13C8 PFOS        | 125           |               | 40 - 130 |
| 13C8 PFOSA       | 114           |               | 40 - 130 |
| d3-NMeFOSAA      | 120           |               | 40 - 170 |
| d5-NEtFOSAA      | 92.7          |               | 25 - 135 |
| 13C2 4:2 FTS     | 84.6          |               | 40 - 200 |
| 13C2 6:2 FTS     | 89.3          |               | 40 - 200 |
| 13C2 8:2 FTS     | 89.4          |               | 40 - 300 |
| 13C3 HFPO-DA     | 85.5          |               | 40 - 130 |
| d7-N-MeFOSE-M    | 104           |               | 10 - 130 |
| d9-N-EtFOSE-M    | 98.1          |               | 10 - 130 |
| d5-NEtPFOSA      | 91.6          |               | 10 - 130 |
| d3-NMePFOSA      | 87.1          |               | 10 - 130 |
| 13C3-3:3 FTCA    | 95.3          |               | 20 - 150 |
| 13C3-5:3 FTCA    | 103           |               | 20 - 150 |

Lab Sample ID: LCSD 320-923254/4-A

Matrix: Water

Analysis Batch: 923426

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 923254

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-------|
| Perfluorobutanoic acid (PFBA)   | 80.0        | 70.0        |                | ng/L |   | 88   | 70 - 140    | 4   | 30    |
| Perfluoropentanoic acid (PFPeA) | 40.0        | 36.6        |                | ng/L |   | 92   | 65 - 135    | 1   | 30    |

Eurofins Pomona

# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCSD 320-923254/4-A

Matrix: Water

Analysis Batch: 923426

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 923254

| Analyte                                                  | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------------------------------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Perfluorohexanoic acid (PFHxA)                           | 40.0        | 36.1        |                | ng/L |   | 90   | 70 - 145    | 10  | 30        |
| Perfluoroheptanoic acid (PFHpA)                          | 40.0        | 38.2        |                | ng/L |   | 96   | 70 - 150    | 8   | 30        |
| Perfluorooctanoic acid (PFOA)                            | 40.0        | 34.8        |                | ng/L |   | 87   | 70 - 150    | 7   | 30        |
| Perfluorononanoic acid (PFNA)                            | 40.0        | 34.6        |                | ng/L |   | 86   | 70 - 150    | 15  | 30        |
| Perfluorodecanoic acid (PFDA)                            | 40.0        | 34.6        |                | ng/L |   | 86   | 70 - 140    | 4   | 30        |
| Perfluoroundecanoic acid (PFUnA)                         | 40.0        | 35.7        |                | ng/L |   | 89   | 70 - 145    | 3   | 30        |
| Perfluorododecanoic acid (PFDoA)                         | 40.0        | 34.7        |                | ng/L |   | 87   | 70 - 140    | 9   | 30        |
| Perfluorotridecanoic acid (PFTrDA)                       | 40.0        | 35.7        |                | ng/L |   | 89   | 65 - 140    | 20  | 30        |
| Perfluorotetradecanoic acid (PFTeDA)                     | 40.0        | 37.0        |                | ng/L |   | 92   | 60 - 140    | 6   | 30        |
| Perfluorobutanesulfonic acid (PFBS)                      | 71.0        | 54.0        |                | ng/L |   | 76   | 60 - 145    | 1   | 30        |
| Perfluoropentanesulfonic acid (PFPeS)                    | 37.6        | 36.5        |                | ng/L |   | 97   | 65 - 140    | 3   | 30        |
| Perfluorohexanesulfonic acid (PFHxS)                     | 36.5        | 30.7        |                | ng/L |   | 84   | 65 - 145    | 1   | 30        |
| Perfluoroheptanesulfonic acid (PFHpS)                    | 38.2        | 32.3        |                | ng/L |   | 85   | 70 - 150    | 13  | 30        |
| Perfluorooctanesulfonic acid (PFOS)                      | 37.2        | 32.4        |                | ng/L |   | 87   | 55 - 150    | 2   | 30        |
| Perfluorononanesulfonic acid (PFNS)                      | 38.5        | 34.2        |                | ng/L |   | 89   | 65 - 145    | 1   | 30        |
| Perfluorodecanesulfonic acid (PFDS)                      | 38.6        | 43.6        |                | ng/L |   | 113  | 60 - 145    | 8   | 30        |
| Perfluorododecanesulfonic acid (PFDoS)                   | 38.8        | 36.6        |                | ng/L |   | 94   | 50 - 145    | 14  | 30        |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)      | 75.0        | 82.3        |                | ng/L |   | 110  | 70 - 145    | 4   | 30        |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)      | 76.2        | 83.8        |                | ng/L |   | 110  | 65 - 155    | 1   | 30        |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)      | 76.8        | 75.7        |                | ng/L |   | 99   | 60 - 150    | 12  | 30        |
| Perfluorooctanesulfonamide (PFOSA)                       | 40.0        | 41.7        |                | ng/L |   | 104  | 70 - 145    | 0   | 30        |
| N-methylperfluorooctane sulfonamide (NMeFOSA)            | 40.0        | 35.1        |                | ng/L |   | 88   | 60 - 150    | 3   | 30        |
| N-ethylperfluorooctane sulfonamide (NEtFOSA)             | 40.0        | 36.0        |                | ng/L |   | 90   | 65 - 145    | 0   | 30        |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.0        | 40.3        |                | ng/L |   | 101  | 50 - 140    | 2   | 30        |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)  | 40.0        | 40.2        |                | ng/L |   | 100  | 70 - 145    | 4   | 30        |
| N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)     | 200         | 196         |                | ng/L |   | 98   | 70 - 145    | 2   | 30        |
| N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)      | 200         | 196         |                | ng/L |   | 98   | 70 - 135    | 0   | 30        |
| Hexafluoropropylene Oxide                                | 30.0        | 36.0        |                | ng/L |   | 120  | 70 - 140    | 10  | 30        |
| Dimer Acid (HFPO-DA)                                     |             |             |                |      |   |      |             |     |           |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA)              | 37.8        | 50.0        |                | ng/L |   | 132  | 65 - 145    | 6   | 30        |
| Perfluoro-4-methoxybutanoic acid (PFMBA)                 | 40.0        | 38.0        |                | ng/L |   | 95   | 60 - 150    | 8   | 30        |

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCSD 320-923254/4-A

Matrix: Water

Analysis Batch: 923426

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 923254

| Analyte                                             | Spike Added    | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------------------------------------------------|----------------|----------------|----------------|------|---|------|-------------|-----|-----------|
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)          | 40.0           | 42.0           |                | ng/L |   | 105  | 50 - 150    | 2   | 30        |
| Perfluoro-3-methoxypropanoic acid (PFMPA)           | 40.0           | 40.7           |                | ng/L |   | 102  | 55 - 140    | 16  | 30        |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid  | 37.4           | 31.3           |                | ng/L |   | 84   | 70 - 155    | 8   | 30        |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | 37.8           | 40.1           |                | ng/L |   | 106  | 55 - 160    | 13  | 30        |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)  | 35.7           | 28.2           |                | ng/L |   | 79   | 70 - 140    | 6   | 30        |
| 3-Perfluoropropylpropanoic acid (3:3 FTCA)          | 80.0           | 80.1           |                | ng/L |   | 100  | 65 - 130    | 5   | 30        |
| 3-Perfluoropentylpropanoic acid (5:3 FTCA)          | 200            | 211            |                | ng/L |   | 106  | 70 - 135    | 4   | 30        |
| 3-Perfluoroheptylpropanoic acid (7:3 FTCA)          | 200            | 200            |                | ng/L |   | 100  | 50 - 145    | 4   | 30        |
| Isotope Dilution                                    | LCSD %Recovery | LCSD Qualifier | Limits         |      |   |      |             |     |           |
| 13C4 PFBA                                           | 104            |                | 5 - 130        |      |   |      |             |     |           |
| 13C5 PFPeA                                          | 101            |                | 40 - 130       |      |   |      |             |     |           |
| 13C5 PFHxA                                          | 93.5           |                | 40 - 130       |      |   |      |             |     |           |
| 13C4 PFHpA                                          | 115            |                | 40 - 130       |      |   |      |             |     |           |
| 13C8 PFOA                                           | 105            |                | 40 - 130       |      |   |      |             |     |           |
| 13C9 PFNA                                           | 121            |                | 40 - 130       |      |   |      |             |     |           |
| 13C6 PFDA                                           | 95.9           |                | 40 - 130       |      |   |      |             |     |           |
| 13C7 PFUnA                                          | 107            |                | 30 - 130       |      |   |      |             |     |           |
| 13C2 PFDoA                                          | 92.2           |                | 10 - 130       |      |   |      |             |     |           |
| 13C2 PFTeDA                                         | 81.5           |                | 10 - 130       |      |   |      |             |     |           |
| 13C6 PFTrDA                                         | 90.2           |                | 20 - 150       |      |   |      |             |     |           |
| 13C3 PFBS                                           | 100            |                | 40 - 135       |      |   |      |             |     |           |
| 13C3 PFHxS                                          | 103            |                | 40 - 130       |      |   |      |             |     |           |
| 13C8 PFOS                                           | 126            |                | 40 - 130       |      |   |      |             |     |           |
| 13C8 PFOSA                                          | 113            |                | 40 - 130       |      |   |      |             |     |           |
| d3-NMeFOSAA                                         | 123            |                | 40 - 170       |      |   |      |             |     |           |
| d5-NEtFOSAA                                         | 86.5           |                | 25 - 135       |      |   |      |             |     |           |
| 13C2 4:2 FTS                                        | 100            |                | 40 - 200       |      |   |      |             |     |           |
| 13C2 6:2 FTS                                        | 87.2           |                | 40 - 200       |      |   |      |             |     |           |
| 13C2 8:2 FTS                                        | 96.2           |                | 40 - 300       |      |   |      |             |     |           |
| 13C3 HFPO-DA                                        | 72.9           |                | 40 - 130       |      |   |      |             |     |           |
| d7-N-MeFOSE-M                                       | 104            |                | 10 - 130       |      |   |      |             |     |           |
| d9-N-EtFOSE-M                                       | 99.0           |                | 10 - 130       |      |   |      |             |     |           |
| d5-NEtPFOSA                                         | 88.2           |                | 10 - 130       |      |   |      |             |     |           |
| d3-NMePFOSA                                         | 84.8           |                | 10 - 130       |      |   |      |             |     |           |
| 13C3-3:3 FTCA                                       | 89.2           |                | 20 - 150       |      |   |      |             |     |           |
| 13C3-5:3 FTCA                                       | 93.1           |                | 20 - 150       |      |   |      |             |     |           |

# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LLCS 320-923254/2-A

Matrix: Water

Analysis Batch: 923426

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 923254

| Analyte                                                  | Spike Added | LLCS Result | LLCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------------------------------|-------------|-------------|----------------|------|---|------|-------------|
| Perfluorobutanoic acid (PFBA)                            | 8.00        | 6.91        |                | ng/L |   | 86   | 70 - 140    |
| Perfluoropentanoic acid (PFPeA)                          | 4.00        | 3.74        |                | ng/L |   | 93   | 65 - 135    |
| Perfluorohexanoic acid (PFHxA)                           | 4.00        | 3.89        |                | ng/L |   | 97   | 70 - 145    |
| Perfluoroheptanoic acid (PFHpA)                          | 4.00        | 3.62        |                | ng/L |   | 90   | 70 - 150    |
| Perfluorooctanoic acid (PFOA)                            | 4.00        | 4.00        |                | ng/L |   | 100  | 70 - 150    |
| Perfluorononanoic acid (PFNA)                            | 4.00        | 3.52        |                | ng/L |   | 88   | 70 - 150    |
| Perfluorodecanoic acid (PFDA)                            | 4.00        | 3.51        |                | ng/L |   | 88   | 70 - 140    |
| Perfluoroundecanoic acid (PFUnA)                         | 4.00        | 3.48        |                | ng/L |   | 87   | 70 - 145    |
| Perfluorododecanoic acid (PFDoA)                         | 4.00        | 3.81        |                | ng/L |   | 95   | 70 - 140    |
| Perfluorotridecanoic acid (PFTrDA)                       | 4.00        | 3.74        |                | ng/L |   | 94   | 65 - 140    |
| Perfluorotetradecanoic acid (PFTeDA)                     | 4.00        | 3.16        |                | ng/L |   | 79   | 60 - 140    |
| Perfluorobutanesulfonic acid (PFBS)                      | 7.10        | 4.67        |                | ng/L |   | 66   | 60 - 145    |
| Perfluoropentanesulfonic acid (PFPeS)                    | 3.76        | 3.74        |                | ng/L |   | 99   | 65 - 140    |
| Perfluorohexanesulfonic acid (PFHxS)                     | 3.65        | 3.23        |                | ng/L |   | 88   | 65 - 145    |
| Perfluoroheptanesulfonic acid (PFHpS)                    | 3.82        | 3.44        |                | ng/L |   | 90   | 70 - 150    |
| Perfluorooctanesulfonic acid (PFOS)                      | 3.72        | 2.97        |                | ng/L |   | 80   | 55 - 150    |
| Perfluorononanesulfonic acid (PFNS)                      | 3.85        | 3.47        |                | ng/L |   | 90   | 65 - 145    |
| Perfluorodecanesulfonic acid (PFDS)                      | 3.86        | 3.88        |                | ng/L |   | 101  | 60 - 145    |
| Perfluorododecanesulfonic acid (PFDoS)                   | 3.88        | 3.36        |                | ng/L |   | 87   | 50 - 145    |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)      | 7.50        | 7.59        |                | ng/L |   | 101  | 70 - 145    |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)      | 7.62        | 7.28        |                | ng/L |   | 96   | 65 - 155    |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)      | 7.68        | 8.16        |                | ng/L |   | 106  | 60 - 150    |
| Perfluorooctanesulfonamide (PFOSA)                       | 4.00        | 4.08        |                | ng/L |   | 102  | 70 - 145    |
| N-methylperfluorooctane sulfonamide (NMeFOSA)            | 4.00        | 3.64        |                | ng/L |   | 91   | 60 - 150    |
| N-ethylperfluorooctane sulfonamide (NEtFOSA)             | 4.00        | 3.46        |                | ng/L |   | 87   | 65 - 145    |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 4.00        | 3.97        |                | ng/L |   | 99   | 50 - 140    |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)  | 4.00        | 3.75        |                | ng/L |   | 94   | 70 - 145    |
| N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)     | 20.0        | 18.9        |                | ng/L |   | 95   | 70 - 145    |
| N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)      | 20.0        | 18.4        |                | ng/L |   | 92   | 70 - 135    |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)           | 3.00        | 3.52        |                | ng/L |   | 117  | 70 - 140    |

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LLCS 320-923254/2-A

Matrix: Water

Analysis Batch: 923426

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 923254

| Analyte                                             | Spike Added | LLCS Result | LLCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------------------------|-------------|-------------|----------------|------|---|------|-------------|
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA)         | 3.78        | 4.81        |                | ng/L |   | 127  | 65 - 145    |
| Perfluoro-4-methoxybutanoic acid (PFMBA)            | 4.00        | 3.66        |                | ng/L |   | 91   | 60 - 150    |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)          | 4.00        | 4.16        |                | ng/L |   | 104  | 50 - 150    |
| Perfluoro-3-methoxypropanoic acid (PFMPA)           | 4.00        | 3.59        |                | ng/L |   | 90   | 55 - 140    |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid  | 3.74        | 3.43        |                | ng/L |   | 92   | 70 - 155    |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | 3.78        | 3.59        |                | ng/L |   | 95   | 55 - 160    |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)   | 3.57        | 3.14        |                | ng/L |   | 88   | 70 - 140    |
| 3-Perfluoropropylpropanoic acid (3:3 FTCA)          | 8.00        | 7.87        |                | ng/L |   | 98   | 65 - 130    |
| 3-Perfluoropentylpropanoic acid (5:3 FTCA)          | 20.0        | 20.1        |                | ng/L |   | 100  | 70 - 135    |
| 3-Perfluoroheptylpropanoic acid (7:3 FTCA)          | 20.0        | 20.3        |                | ng/L |   | 101  | 50 - 145    |

| Isotope Dilution | LLCS      |           | Limits   |
|------------------|-----------|-----------|----------|
|                  | %Recovery | Qualifier |          |
| 13C4 PFBA        | 103       |           | 5 - 130  |
| 13C5 PFPeA       | 116       |           | 40 - 130 |
| 13C5 PFHxA       | 96.0      |           | 40 - 130 |
| 13C4 PFHpA       | 135       | *5+       | 40 - 130 |
| 13C8 PFOA        | 93.9      |           | 40 - 130 |
| 13C9 PFNA        | 112       |           | 40 - 130 |
| 13C6 PFDA        | 87.2      |           | 40 - 130 |
| 13C7 PFUnA       | 108       |           | 30 - 130 |
| 13C2 PFDoA       | 106       |           | 10 - 130 |
| 13C2 PFTeDA      | 85.1      |           | 10 - 130 |
| 13C6 PFTriDA     | 86.4      |           | 20 - 150 |
| 13C3 PFBS        | 102       |           | 40 - 135 |
| 13C3 PFHxS       | 102       |           | 40 - 130 |
| 13C8 PFOS        | 122       |           | 40 - 130 |
| 13C8 PFOSA       | 114       |           | 40 - 130 |
| d3-NMeFOSAA      | 114       |           | 40 - 170 |
| d5-NEtFOSAA      | 92.1      |           | 25 - 135 |
| 13C2 4:2 FTS     | 95.0      |           | 40 - 200 |
| 13C2 6:2 FTS     | 83.3      |           | 40 - 200 |
| 13C2 8:2 FTS     | 92.8      |           | 40 - 300 |
| 13C3 HFPO-DA     | 81.9      |           | 40 - 130 |
| d7-N-MeFOSE-M    | 100       |           | 10 - 130 |
| d9-N-EtFOSE-M    | 94.7      |           | 10 - 130 |
| d5-NEtPFOSA      | 81.8      |           | 10 - 130 |
| d3-NMePFOSA      | 81.5      |           | 10 - 130 |
| 13C3-3:3 FTCA    | 101       |           | 20 - 150 |
| 13C3-5:3 FTCA    | 108       |           | 20 - 150 |

## QC Association Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

### LCMS

#### Prep Batch: 923254

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 380-219931-1        | BWS2254-D2-AQ          | Total/NA  | Water  | 1633   |            |
| MB 320-923254/1-A   | Method Blank           | Total/NA  | Water  | 1633   |            |
| LCS 320-923254/3-A  | Lab Control Sample     | Total/NA  | Water  | 1633   |            |
| LCSD 320-923254/4-A | Lab Control Sample Dup | Total/NA  | Water  | 1633   |            |
| LLCS 320-923254/2-A | Lab Control Sample     | Total/NA  | Water  | 1633   |            |

#### Analysis Batch: 923426

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|---------------------|------------------------|-----------|--------|----------|------------|
| 380-219931-1        | BWS2254-D2-AQ          | Total/NA  | Water  | QSM B-24 | 923254     |
| MB 320-923254/1-A   | Method Blank           | Total/NA  | Water  | QSM B-24 | 923254     |
| LCS 320-923254/3-A  | Lab Control Sample     | Total/NA  | Water  | QSM B-24 | 923254     |
| LCSD 320-923254/4-A | Lab Control Sample Dup | Total/NA  | Water  | QSM B-24 | 923254     |
| LLCS 320-923254/2-A | Lab Control Sample     | Total/NA  | Water  | QSM B-24 | 923254     |

Lab Chronicle

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

Client Sample ID: BWS2254-D2-AQ  
Date Collected: 06/15/26 12:00  
Date Received: 06/16/26 09:20

Lab Sample ID: 380-219931-1  
Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 1633         |     |                 | 923254       | JHH     | EET SAC | 06/23/26 05:56       |
| Total/NA  | Analysis   | QSM B-24     |     | 1               | 923426       | SEY     | EET SAC | 06/24/26 14:46       |

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

## Accreditation/Certification Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

### Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority          | Program               | Identification Number | Expiration Date |
|--------------------|-----------------------|-----------------------|-----------------|
| Alaska             | State                 | CA00044               | 06-30-26        |
| Alaska (UST)       | State                 | 17-020                | 02-22-27        |
| ANAB               | Dept. of Defense ELAP | L2468                 | 01-20-27        |
| ANAB               | Dept. of Energy       | L2468.01              | 01-20-27        |
| ANAB               | ISO/IEC 17025         | L2468.03              | 01-20-27        |
| Arizona            | State                 | AZ0708                | 08-11-26        |
| Arkansas DEQ       | State                 | 88-0691               | 05-17-27        |
| California         | State                 | 2897                  | 01-31-28        |
| Colorado           | State                 | CA00044               | 08-31-26        |
| Florida            | NELAP                 | E87570                | 06-30-26        |
| Georgia            | State                 | 4040                  | 01-29-27        |
| Illinois           | NELAP                 | 200060                | 03-31-27        |
| Kansas             | NELAP                 | E-10375               | 10-31-26        |
| Louisiana          | NELAP                 | 01944                 | 06-30-26        |
| Louisiana (All)    | NELAP                 | 01944                 | 06-30-26        |
| Maine              | State                 | CA00004               | 04-14-28        |
| Massachusetts      | State                 | M-CA044               | 06-30-26        |
| Michigan           | State                 | 9947                  | 08-03-26        |
| Minnesota          | NELAP                 | 006-999-474           | 12-31-26        |
| Nevada             | State                 | CA00044               | 07-31-26        |
| New Jersey         | NELAP                 | CA005                 | 06-30-26        |
| New York           | NELAP                 | 11666                 | 04-01-27        |
| Ohio               | State                 | 41252                 | 01-29-27        |
| Oregon             | NELAP                 | 4040                  | 01-29-27        |
| Texas              | NELAP                 | T104704399-23-17      | 05-31-27        |
| US Fish & Wildlife | US Federal Programs   | A22139                | 04-30-27        |
| USDA               | US Federal Programs   | 525-23-59-76739       | 03-01-27        |
| Utah               | NELAP                 | CA000442023-16        | 02-28-27        |
| Virginia           | NELAP                 | 460278                | 09-30-26        |
| Washington         | State                 | C581                  | 05-06-27        |
| West Virginia (DW) | State                 | 9930C                 | 01-31-27        |
| West Virginia DEP  | State                 | 422                   | 07-31-26        |
| Wisconsin          | State                 | 998204680             | 08-31-26        |
| Wyoming            | State Program         | 8TMS-L                | 01-28-19 *      |

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Pomona

## Method Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

| Method   | Method Description           | Protocol | Laboratory |
|----------|------------------------------|----------|------------|
| QSM B-24 | PFAS for QSM 6.0, Table B-24 | DoD 6.0  | EET SAC    |
| 1633     | Solid-Phase Extraction (SPE) | EPA      | EET SAC    |

### Protocol References:

DoD 6.0 = Department of Defense Quality Systems Manual V6.0  
EPA = US Environmental Protection Agency

### Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-219931-1  
SDG: Site D2 PFAS 1633

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Sample Origin |
|---------------|------------------|--------|----------------|----------------|---------------|
| 380-219931-1  | BWS2254-D2-AQ    | Water  | 06/15/26 12:00 | 06/16/26 09:20 | Hawaii        |

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



[illegible]



## Chain of Custody Record

**Eurofins Pomona**  
941 Corporate Center Drive  
Pomona, CA 91768-2642  
Phone: 626-386-1100

[illegible]

|                                                                                                                                      |  |                                                                     |  |
|--------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------|--|
| Carrier Tracking No(s):                                                                                                              |  | COC No:                                                             |  |
| State of Origin:                                                                                                                     |  | Page: Page 1 of 1                                                   |  |
| Hawaii                                                                                                                               |  | Job #:                                                              |  |
| Analysis Requested                                                                                                                   |  |                                                                     |  |
| Lab PM                                                                                                                               |  | Lopez, Maria                                                        |  |
| E-Mail:                                                                                                                              |  | Maria.Lopez@et.eurofins.com                                         |  |
| PWSID:                                                                                                                               |  |                                                                     |  |
| Due Date Requested                                                                                                                   |  |                                                                     |  |
| TAT Requested (days):                                                                                                                |  | Standard                                                            |  |
| Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                              |  |                                                                     |  |
| PO #:                                                                                                                                |  |                                                                     |  |
| WO #:                                                                                                                                |  |                                                                     |  |
| Project #:                                                                                                                           |  | 36000861                                                            |  |
| SSOW#:                                                                                                                               |  |                                                                     |  |
| Site:                                                                                                                                |  | D2                                                                  |  |
| Sample Identification                                                                                                                |  | BWS2254-D2-AQ                                                       |  |
| Sample Date                                                                                                                          |  | 6/15/20                                                             |  |
| Sample Time                                                                                                                          |  | 12:00                                                               |  |
| Sample Type (C=comp, G=grab)                                                                                                         |  | G                                                                   |  |
| Matrix (W=water, S=solid, O=sewage, B=biological, A=air, D=drinking water)                                                           |  | Water                                                               |  |
| Field Filtered Sample (Yes or No)                                                                                                    |  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |  |
| Perform MS/MSD (Yes or No)                                                                                                           |  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |  |
| 1631_P006 - EPA Method 1631 Std List                                                                                                 |  |                                                                     |  |
| Total Number of Containers                                                                                                           |  | 2                                                                   |  |
| Special Instructions/Note:                                                                                                           |  | BILL TO POMONA EEA                                                  |  |
| Preservation Codes                                                                                                                   |  | A - HCL<br>N - None                                                 |  |
| Other:                                                                                                                               |  |                                                                     |  |
| Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)                                                 |  |                                                                     |  |
| <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months |  |                                                                     |  |
| Special Instructions/QC Requirements.                                                                                                |  |                                                                     |  |
| Method of Shipment                                                                                                                   |  |                                                                     |  |
| Receiver by:                                                                                                                         |  | Date/Time:                                                          |  |
| DSM                                                                                                                                  |  | 6/15/20 14:00                                                       |  |
| Received by:                                                                                                                         |  | Date/Time:                                                          |  |
|                                                                                                                                      |  |                                                                     |  |
| Received by:                                                                                                                         |  | Date/Time:                                                          |  |
|                                                                                                                                      |  |                                                                     |  |
| Cooler Temperature(s) °C and Other Remarks:                                                                                          |  | 0.7°C                                                               |  |

## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-219931-1  
SDG Number: Site D2 PFAS 1633

**Login Number: 219931**

**List Number: 1**

**Creator: Ngo, Theodore**

**List Source: Eurofins Pomona**

| Question                                                                         | Answer | Comment |
|----------------------------------------------------------------------------------|--------|---------|
| The coolers custody seal, if present, is intact.                                 | N/A    |         |
| Sample custody seals, if present, are intact.                                    | N/A    |         |
| Samples were received on ice.                                                    | True   |         |
| Cooler(s) Temperature is acceptable.                                             | True   |         |
| Cooler(s) Temperature is recorded.                                               | True   |         |
| COC is present.                                                                  | True   |         |
| COC is filled out in ink and is legible.                                         | True   |         |
| COC is filled out with all pertinent information.                                | True   |         |
| There are no discrepancies between the containers received and the COC.          | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)    | True   |         |
| Sample containers have legible labels.                                           | True   |         |
| Containers are not broken or leaking.                                            | True   |         |
| Sample collection date/times are provided.                                       | True   |         |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True   |         |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").  | True   |         |
| CIO4 headspace requirement met (>50% for CA, >30% for other states).             | N/A    |         |
| Samples do not require splitting or compositing.                                 | True   |         |
| Container provided by EEA                                                        | True   |         |

## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-219931-1  
SDG Number: Site D2 PFAS 1633

**Login Number: 219931**

**List Number: 2**

**Creator: Simmons, Jason C**

**List Source: Eurofins Sacramento**

**List Creation: 06/16/26 03:50 PM**

| Question                                                                                 | Answer | Comment |
|------------------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.      | True   |         |
| The cooler's custody seal, if present, is intact.                                        | True   | Seal    |
| Sample custody seals, if present, are intact.                                            | N/A    |         |
| The cooler or samples do not appear to have been compromised or tampered with.           | True   |         |
| Samples were received on ice.                                                            | True   |         |
| Cooler Temperature is acceptable.                                                        | True   |         |
| Cooler Temperature is recorded.                                                          | True   | 0.7c    |
| COC is present.                                                                          | True   |         |
| COC is filled out in ink and legible.                                                    | True   |         |
| COC is filled out with all pertinent information.                                        | True   |         |
| Is the Field Sampler's name present on COC?                                              | True   |         |
| There are no discrepancies between the containers received and the COC.                  | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)            | True   |         |
| Sample containers have legible labels.                                                   | True   |         |
| Containers are not broken or leaking.                                                    | True   |         |
| Sample collection date/times are provided.                                               | True   |         |
| Appropriate sample containers are used.                                                  | True   |         |
| Sample bottles are completely filled.                                                    | True   |         |
| Sample Preservation Verified.                                                            | N/A    |         |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs         | True   |         |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | True   |         |
| Multiphasic samples are not present.                                                     | True   |         |
| Samples do not require splitting or compositing.                                         | True   |         |
| Residual Chlorine Checked.                                                               | N/A    |         |