

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 310
Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
525.2, 533 and 537.1
RUSH Weekly Red Hill

JOB NUMBER

380-73688-1

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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 Eaton Analytical, 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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Authorized for release by
Rachelle Arada, Project Manager
Rachelle.Arada@et.eurofinsus.com
(626)386-1106



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Definitions/Glossary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Qualifiers

GC/MS Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| *1 | LCS/LCSD RPD exceeds control limits. |
| *3 | ISTD response or retention time outside acceptable limits. |
| ^+ | Continuing Calibration Verification (CCV) is outside acceptance limits, high biased. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1+ | Surrogate recovery exceeds control limits, high biased. |

GC/MS Semi VOA TICs

| Qualifier | Qualifier Description |
|-----------|---|
| J | Indicates an Estimated Value for TICs |
| N | Presumptive evidence of material. |
| T | Result is a tentatively identified compound (TIC) and an estimated value. |

LCMS

| Qualifier | Qualifier Description |
|-----------|--|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | 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: RED-HILL

Job ID: 380-73688-1

Job ID: 380-73688-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-73688-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 12/6/2023 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.8°C, 1.9°C and 2.8°C

GC/MS Semi VOA

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

PFAS

EPA 537.1 and EPA 533 are two distinct methods for the analysis of PFAS in drinking water. The analyses are conducted on differing instrumentation, with calibrations, extraction solvents and sample preservatives being dissimilar among the two methods. Therefore it is probable and not unexpected to see the methods having slight variations in analytical results. HALAWA WELLS UNITS 1 & 2 P1 (380-73688-4)

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

Detection Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: MOANALUA WELLS
PWSID Number: HI0000331

Lab Sample ID: 380-73688-1

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2
PWSID Number: HI0000331

Lab Sample ID: 380-73688-2

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
PWSID Number: HI0000331

Lab Sample ID: 380-73688-3

No Detections.

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
PWSID Number: HI0000331

Lab Sample ID: 380-73688-4

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|--------------------------------------|--------|-----------|-----|------|---------|---|--------|-----------|
| Perfluorohexanesulfonic acid (PFHxS) | 3.0 | | 2.0 | ng/L | 1 | | 533 | Total/NA |
| Perfluorohexanoic acid (PFHxA) | 2.1 | | 2.0 | ng/L | 1 | | 533 | Total/NA |
| Perfluorooctanesulfonic acid (PFOS) | 2.5 | | 2.0 | ng/L | 1 | | 533 | Total/NA |
| Perfluorooctanoic acid (PFOA) | 2.2 | | 2.0 | ng/L | 1 | | 533 | Total/NA |
| Perfluoropentanoic acid (PFPeA) | 2.5 | | 2.0 | ng/L | 1 | | 533 | Total/NA |
| Perfluorohexanesulfonic acid (PFHxS) | 2.2 | | 2.0 | ng/L | 1 | | 537.1 | Total/NA |

Client Sample ID: FB MOANALUA WELLS
PWSID Number: HI0000331

Lab Sample ID: 380-73688-9

No Detections.

Client Sample ID: FB AIEA GULCH WELLS PUMP 2
PWSID Number: HI0000331

Lab Sample ID: 380-73688-10

No Detections.

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260) P2
PWSID Number: HI0000331

Lab Sample ID: 380-73688-11

No Detections.

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2 P1
PWSID Number: HI0000331

Lab Sample ID: 380-73688-12

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-73688-1

Date Collected: 12/04/23 10:04

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| 1-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| 2,4'-DDD | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| 2,4'-DDE | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| 2,4'-DDT | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| 2,4-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| 2,6-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| 2-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| 4,4'-DDD | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| 4,4'-DDE | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| 4,4'-DDT | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Acenaphthene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Acenaphthylene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Acetochlor | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Alachlor | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| alpha-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| alpha-Chlordane | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Anthracene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Atrazine | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Benz(a)anthracene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Benzo[a]pyrene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Benzo[b]fluoranthene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Benzo[g,h,i]perylene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Benzo[k]fluoranthene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| beta-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.59 | | 0.59 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Bromacil | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Butachlor | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Butylbenzylphthalate | <0.49 | | 0.49 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Chlorobenzilate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Chloroneb | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Chlorothalonil (Draconil, Bravo) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Chlorpyrifos | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Chrysene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| delta-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Di(2-ethylhexyl)adipate | <0.59 | | 0.59 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Dibenz(a,h)anthracene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Diclorvos (DDVP) | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Dieldrin | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Diethylphthalate | <0.49 | | 0.49 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Dimethylphthalate | <0.49 | | 0.49 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Di-n-butyl phthalate | <0.99 | | 0.99 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Di-n-octyl phthalate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Endosulfan I (Alpha) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Endosulfan II (Beta) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Endosulfan sulfate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Endrin | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Endrin aldehyde | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| EPTC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Fluoranthene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |

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Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-73688-1

Date Collected: 12/04/23 10:04

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| Fluorene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| gamma-Chlordane | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Heptachlor | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Heptachlor epoxide (isomer B) | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Hexachlorobenzene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Hexachlorocyclopentadiene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Isophorone | <0.49 | | 0.49 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Lindane | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Malathion | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Methoxychlor | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Metolachlor | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Molinate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Naphthalene | <0.30 | | 0.30 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Parathion | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Pendimethalin (Penoxaline) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Phenanthrene | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Propachlor | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Pyrene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Simazine | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Terbacil | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Terbutylazine | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Thiobencarb | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Total Permethrin (mixed isomers) | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| trans-Nonachlor | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Trifluralin | <0.099 | ^+ | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:04 | 1 |

| Tentatively Identified Compound | Est. Result | Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|------|---|----|---------|----------------|----------------|---------|
| Tentatively Identified Compound | None | | ug/L | | | N/A | 12/08/23 06:07 | 12/08/23 16:04 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Nitro-m-xylene | 95 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Perylene-d12 | 93 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 16:04 | 1 |
| Triphenylphosphate | 101 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 16:04 | 1 |

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------|-----------|-----|------|---|----------------|----------------|---------|
| 11-Chloroeicosafiuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |

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Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-73688-1

Date Collected: 12/04/23 10:04

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|-----------|-----------|----------|------|---|----------------|----------------|---------|
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluorobutanoic acid (PFBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluoropentanoic acid (PFPeA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluoroheptanesulfonic acid (PFHpS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Perfluoropentanesulfonic acid (PFPeS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| Isotope Dilution | %Recovery | Qualifier | Limits | | | Prepared | Analyzed | Dil Fac |
| 13C3 HFPO-DA | 82 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C6 PFDA | 89 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C5 PFHxA | 78 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C4 PFHpA | 81 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C8 PFOA | 89 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C9 PFNA | 87 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C7 PFUnA | 95 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C2 PFDoA | 83 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C4 PFBA | 76 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C5 PFPeA | 80 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C3 PFBS | 97 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C3 PFHxS | 103 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C8 PFOS | 102 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C2-4:2-FTS | 106 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C2-6:2-FTS | 108 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |
| 13C2-8:2-FTS | 116 | | 50 - 200 | | | 12/09/23 13:30 | 12/10/23 23:01 | 1 |

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|--------|-----------|-----|------|---|----------------|----------------|---------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |

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Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-73688-1

Date Collected: 12/04/23 10:04

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|-----------|-----------|----------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Perfluorotetradecanoic acid (PFTA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Perfluorotridecanoic acid (PFTrDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| 11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | Prepared | Analyzed | Dil Fac |
| d5-NEtFOSAA | 100 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| 13C2 PFHxA | 109 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| 13C2 PFDA | 109 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |
| 13C3-GenX | 115 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 10:41 | 1 |

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-73688-2

Date Collected: 12/04/23 10:53

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| 1-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| 2,4'-DDD | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| 2,4'-DDE | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| 2,4'-DDT | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| 2,4-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| 2,6-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| 2-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| 4,4'-DDD | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| 4,4'-DDE | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| 4,4'-DDT | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Acenaphthene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Acenaphthylene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Acetochlor | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Alachlor | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| alpha-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| alpha-Chlordane | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Anthracene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Atrazine | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Benz(a)anthracene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Benzo[a]pyrene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Benzo[b]fluoranthene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Benzo[g,h,i]perylene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-73688-2

Date Collected: 12/04/23 10:53

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| Benzo[k]fluoranthene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| beta-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.59 | | 0.59 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Bromacil | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Butachlor | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Butylbenzylphthalate | <0.49 | | 0.49 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Chlorobenzilate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Chloroneb | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Chlorothalonil (Draconil, Bravo) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Chlorpyrifos | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Chrysene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| delta-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Di(2-ethylhexyl)adipate | <0.59 | | 0.59 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Dibenz(a,h)anthracene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Diclorvos (DDVP) | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Dieldrin | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Diethylphthalate | <0.49 | | 0.49 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Dimethylphthalate | <0.49 | | 0.49 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Di-n-butyl phthalate | <0.99 | | 0.99 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Di-n-octyl phthalate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Endosulfan I (Alpha) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Endosulfan II (Beta) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Endosulfan sulfate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Endrin | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Endrin aldehyde | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| EPTC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Fluoranthene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Fluorene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| gamma-Chlordane | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Heptachlor | <0.039 | | 0.039 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Heptachlor epoxide (isomer B) | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Hexachlorobenzene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Hexachlorocyclopentadiene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Isophorone | <0.49 | | 0.49 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Lindane | <0.039 | | 0.039 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Malathion | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Methoxychlor | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Metolachlor | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Molinate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Naphthalene | <0.30 | | 0.30 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Parathion | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Pendimethalin (Penoxaline) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Phenanthrene | <0.039 | | 0.039 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Propachlor | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Pyrene | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Simazine | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Terbacil | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Terbutylazine | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-73688-2

Date Collected: 12/04/23 10:53

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| Thiobencarb | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Total Permethrin (mixed isomers) | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| trans-Nonachlor | <0.049 | | 0.049 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Trifluralin | <0.099 | ^+ | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:24 | 1 |

| Tentatively Identified Compound | Est. Result | Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|------|---|----|---------|----------------|----------------|---------|
| Tentatively Identified Compound | None | | ug/L | | | N/A | 12/08/23 06:07 | 12/08/23 16:24 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Nitro-m-xylene | 96 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Perylene-d12 | 106 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 16:24 | 1 |
| Triphenylphosphate | 113 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 16:24 | 1 |

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|--------|-----------|-----|------|---|----------------|----------------|---------|
| 11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluorobutanoic acid (PFBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluoropentanoic acid (PFPeA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluoroheptanesulfonic acid (PFHpS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| Perfluoropentanesulfonic acid (PFPeS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:26 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-73688-2

Date Collected: 12/04/23 10:53

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C3 HFPO-DA | 94 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C6 PFDA | 103 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C5 PFHxA | 93 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C4 PFHpA | 87 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C8 PFOA | 93 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C9 PFNA | 89 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C7 PFUnA | 91 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C2 PFDoA | 83 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C4 PFBA | 89 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C5 PFPeA | 88 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C3 PFBS | 106 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C3 PFHxS | 106 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C8 PFOS | 103 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C2-4:2-FTS | 113 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C2-6:2-FTS | 102 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |
| 13C2-8:2-FTS | 110 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 00:26 | 1 |

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|--------|-----------|-----|------|---|----------------|----------------|---------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluorotetradecanoic acid (PFTA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| Perfluorotridecanoic acid (PFTrDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:30 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------|-----------|-----------|----------|----------------|----------------|---------|
| d5-NEtFOSAA | 104 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| 13C2 PFHxA | 105 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| 13C2 PFDA | 102 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 11:30 | 1 |
| 13C3-GenX | 109 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 11:30 | 1 |

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-73688-3

Date Collected: 12/04/23 11:20

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| 1-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| 2,4'-DDD | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| 2,4'-DDE | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| 2,4'-DDT | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| 2,4-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| 2,6-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| 2-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| 4,4'-DDD | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| 4,4'-DDE | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| 4,4'-DDT | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Acenaphthene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Acenaphthylene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Acetochlor | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Alachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| alpha-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| alpha-Chlordane | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Anthracene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Atrazine | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Benz(a)anthracene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Benzo[a]pyrene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Benzo[b]fluoranthene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Benzo[g,h,i]perylene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Benzo[k]fluoranthene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| beta-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.60 | | 0.60 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Bromacil | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Butachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Butylbenzylphthalate | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Chlorobenzilate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Chloroneb | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Chlorothalonil (Draconil, Bravo) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Chlorpyrifos | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Chrysene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| delta-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Di(2-ethylhexyl)adipate | <0.60 | | 0.60 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Dibenz(a,h)anthracene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Diclorvos (DDVP) | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Dieldrin | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Diethylphthalate | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Dimethylphthalate | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Di-n-butyl phthalate | <0.99 | | 0.99 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Di-n-octyl phthalate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Endosulfan I (Alpha) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Endosulfan II (Beta) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Endosulfan sulfate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Endrin | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Endrin aldehyde | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| EPTC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Fluoranthene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-73688-3

Date Collected: 12/04/23 11:20

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| Fluorene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| gamma-Chlordane | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Heptachlor | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Heptachlor epoxide (isomer B) | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Hexachlorobenzene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Hexachlorocyclopentadiene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Isophorone | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Lindane | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Malathion | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Methoxychlor | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Metolachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Molinate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Naphthalene | <0.30 | | 0.30 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Parathion | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Pendimethalin (Penoxaline) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Phenanthrene | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Propachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Pyrene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Simazine | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Terbacil | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Terbuthylazine | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Thiobencarb | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Total Permethrin (mixed isomers) | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| trans-Nonachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Trifluralin | <0.099 | ^+ | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 16:44 | 1 |

| Tentatively Identified Compound | Est. Result | Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|------|---|----|---------|----------------|----------------|---------|
| Tentatively Identified Compound | None | | ug/L | | | N/A | 12/08/23 06:07 | 12/08/23 16:44 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Nitro-m-xylene | 98 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Perylene-d12 | 98 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 16:44 | 1 |
| Triphenylphosphate | 109 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 16:44 | 1 |

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------|-----------|-----|------|---|----------------|----------------|---------|
| 11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-73688-3

Date Collected: 12/04/23 11:20

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|-----------|-----------|----------|------|---|----------------|----------------|---------|
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluorobutanoic acid (PFBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluoropentanoic acid (PFPeA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluoroheptanesulfonic acid (PFHpS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Perfluoropentanesulfonic acid (PFPeS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| Isotope Dilution | %Recovery | Qualifier | Limits | | | Prepared | Analyzed | Dil Fac |
| 13C3 HFPO-DA | 76 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C6 PFDA | 90 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C5 PFHxA | 77 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C4 PFHpA | 78 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C8 PFOA | 79 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C9 PFNA | 86 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C7 PFUnA | 95 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C2 PFDoA | 86 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C4 PFBA | 76 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C5 PFPeA | 77 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C3 PFBS | 103 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C3 PFHxS | 105 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C8 PFOS | 105 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C2-4:2-FTS | 115 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C2-6:2-FTS | 101 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |
| 13C2-8:2-FTS | 114 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:35 | 1 |

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|--------|-----------|-----|------|---|----------------|----------------|---------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-73688-3

Date Collected: 12/04/23 11:20

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|-----------|-----------|----------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Perfluorotetradecanoic acid (PFTA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Perfluorotridecanoic acid (PFTrDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| 11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | Prepared | Analyzed | Dil Fac |
| d5-NEtFOSAA | 104 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| 13C2 PFHxA | 103 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| 13C2 PFDA | 99 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |
| 13C3-GenX | 105 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 11:39 | 1 |

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-73688-4

Date Collected: 12/04/23 10:29

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| 1-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| 2,4'-DDD | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| 2,4'-DDE | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| 2,4'-DDT | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| 2,4-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| 2,6-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| 2-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| 4,4'-DDD | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| 4,4'-DDE | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| 4,4'-DDT | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Acenaphthene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Acenaphthylene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Acetochlor | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Alachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| alpha-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| alpha-Chlordane | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Anthracene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Atrazine | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Benz(a)anthracene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Benzo[a]pyrene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Benzo[b]fluoranthene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Benzo[g,h,i]perylene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-73688-4

Date Collected: 12/04/23 10:29

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| Benzo[k]fluoranthene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| beta-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.59 | | 0.59 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Bromacil | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Butachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Butylbenzylphthalate | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Chlorobenzilate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Chloroneb | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Chlorothalonil (Draconil, Bravo) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Chlorpyrifos | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Chrysene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| delta-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Di(2-ethylhexyl)adipate | <0.59 | | 0.59 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Dibenz(a,h)anthracene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Diclorvos (DDVP) | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Dieldrin | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Diethylphthalate | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Dimethylphthalate | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Di-n-butyl phthalate | <0.99 | | 0.99 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Di-n-octyl phthalate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Endosulfan I (Alpha) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Endosulfan II (Beta) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Endosulfan sulfate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Endrin | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Endrin aldehyde | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| EPTC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Fluoranthene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Fluorene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| gamma-Chlordane | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Heptachlor | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Heptachlor epoxide (isomer B) | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Hexachlorobenzene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Hexachlorocyclopentadiene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Isophorone | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Lindane | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Malathion | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Methoxychlor | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Metolachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Molinate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Naphthalene | <0.30 | | 0.30 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Parathion | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Pendimethalin (Penoxaline) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Phenanthrene | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Propachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Pyrene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Simazine | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Terbacil | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Terbutylazine | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-73688-4

Date Collected: 12/04/23 10:29

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| Thiobencarb | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Total Permethrin (mixed isomers) | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| trans-Nonachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Trifluralin | <0.099 | ^+ | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 17:03 | 1 |

| Tentatively Identified Compound | Est. Result | Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|------|---|----|---------|----------------|----------------|---------|
| Tentatively Identified Compound | None | | ug/L | | | N/A | 12/08/23 06:07 | 12/08/23 17:03 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Nitro-m-xylene | 98 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Perylene-d12 | 101 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 17:03 | 1 |
| Triphenylphosphate | 108 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 17:03 | 1 |

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|------------|-----------|-----|------|---|----------------|----------------|---------|
| 11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 3.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluorohexanoic acid (PFHxA) | 2.1 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 2.5 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluorooctanoic acid (PFOA) | 2.2 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluorobutanoic acid (PFBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluoropentanoic acid (PFPeA) | 2.5 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Perfluoroheptanesulfonic acid (PFHpS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-73688-4

Date Collected: 12/04/23 10:29

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------------|------------------|------------------|---------------|------|---|-----------------|-----------------|----------------|
| Perfluoropentanesulfonic acid (PFPeS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| Isotope Dilution | %Recovery | Qualifier | Limits | | | Prepared | Analyzed | Dil Fac |
| 13C3 HFPO-DA | 64 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C6 PFDA | 85 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C5 PFHxA | 65 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C4 PFHpA | 67 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C8 PFOA | 72 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C9 PFNA | 79 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C7 PFUnA | 86 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C2 PFDoA | 80 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C4 PFBA | 63 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C5 PFPeA | 66 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C3 PFBS | 96 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C3 PFHxS | 95 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C8 PFOS | 95 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C2-4:2-FTS | 108 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C2-6:2-FTS | 96 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |
| 13C2-8:2-FTS | 107 | | 50 - 200 | | | 12/09/23 13:30 | 12/11/23 00:45 | 1 |

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|------------------|------------------|---------------|------|---|-----------------|-----------------|----------------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 2.2 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluorotetradecanoic acid (PFTA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Perfluorotridecanoic acid (PFTrDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | Prepared | Analyzed | Dil Fac |
| d5-NEtFOSAA | 89 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| 13C2 PFHxA | 92 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |
| 13C2 PFDA | 89 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 11:49 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-73688-4

Date Collected: 12/04/23 10:29

Matrix: Drinking Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------|-----------|-----------|----------|----------------|----------------|---------|
| 13C3-GenX | 97 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 11:49 | 1 |

Client Sample ID: FB MOANALUA WELLS

Lab Sample ID: 380-73688-9

Date Collected: 12/04/23 10:04

Matrix: Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|-----------|-----------|----------|----------------|----------------|----------------|----------------|---------|
| 11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluorobutanoic acid (PFBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluoropentanoic acid (PFPeA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluoroheptanesulfonic acid (PFHpS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Perfluoropentanesulfonic acid (PFPeS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac | | |
| 13C3 HFPO-DA | 104 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 | | |
| 13C6 PFDA | 95 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 | | |
| 13C5 PFHxA | 103 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 | | |
| 13C4 PFHpA | 100 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 | | |
| 13C8 PFOA | 102 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 | | |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: FB MOANALUA WELLS

Lab Sample ID: 380-73688-9

Date Collected: 12/04/23 10:04

Matrix: Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C9 PFNA | 94 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 13C7 PFUnA | 98 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 13C2 PFDoA | 92 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 13C4 PFBA | 98 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 13C5 PFPeA | 99 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 13C3 PFBS | 102 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 13C3 PFHxS | 103 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 13C8 PFOS | 101 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 13C2-4:2-FTS | 105 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 13C2-6:2-FTS | 98 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 |
| 13C2-8:2-FTS | 97 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:05 | 1 |

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|--------|-----------|-----|------|---|----------------|----------------|---------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| N-methylperfluorooctanesulfonamide cetic acid (NMeFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| N-ethylperfluorooctanesulfonamide cetic acid (NEtFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluorotetradecanoic acid (PFTA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| Perfluorotridecanoic acid (PFTrDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 11:59 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------|-----------|-----------|----------|----------------|----------------|---------|
| d5-NEtFOSAA | 107 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| 13C2 PFHxA | 109 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| 13C2 PFDA | 106 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 11:59 | 1 |
| 13C3-GenX | 110 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 11:59 | 1 |

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-73688-10

Date Collected: 12/04/23 10:53

Matrix: Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|--------|-----------|-----|------|---|----------------|----------------|---------|
| 11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluorobutanoic acid (PFBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluoropentanoic acid (PFPeA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluoroheptanesulfonic acid (PFHpS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| Perfluoropentanesulfonic acid (PFPeS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:16 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C3 HFPO-DA | 111 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C6 PFDA | 107 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C5 PFHxA | 109 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C4 PFHpA | 101 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C8 PFOA | 106 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C9 PFNA | 106 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C7 PFUnA | 95 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C2 PFDoA | 87 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C4 PFBA | 100 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C5 PFPeA | 101 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C3 PFBS | 104 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C3 PFHxS | 100 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C8 PFOS | 100 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-73688-10

Date Collected: 12/04/23 10:53

Matrix: Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C2-4:2-FTS | 109 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C2-6:2-FTS | 100 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |
| 13C2-8:2-FTS | 100 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:16 | 1 |

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|------------------|------------------|---------------|------|---|-----------------|-----------------|----------------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluorotetradecanoic acid (PFTA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Perfluorotridecanoic acid (PFTrDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| 11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | Prepared | Analyzed | Dil Fac |
| d5-NEtFOSAA | 101 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| 13C2 PFHxA | 108 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| 13C2 PFDA | 104 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |
| 13C3-GenX | 107 | | 70 - 130 | | | 12/07/23 09:01 | 12/08/23 12:08 | 1 |

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-73688-11

Date Collected: 12/04/23 11:20

Matrix: Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------|-----------|-----|------|---|----------------|----------------|---------|
| 11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-73688-11

Date Collected: 12/04/23 11:20

Matrix: Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------|-----------|-----|------|---|----------------|----------------|---------|
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluorobutanoic acid (PFBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluoropentanoic acid (PFPeA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluoroheptanesulfonic acid (PFHpS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| Perfluoropentanesulfonic acid (PFPeS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:25 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C3 HFPO-DA | 107 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C6 PFDA | 99 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C5 PFHxA | 105 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C4 PFHpA | 100 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C8 PFOA | 105 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C9 PFNA | 103 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C7 PFUnA | 99 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C2 PFDoA | 89 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C4 PFBA | 103 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C5 PFPeA | 104 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C3 PFBS | 109 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C3 PFHxS | 107 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C8 PFOS | 105 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C2-4:2-FTS | 118 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C2-6:2-FTS | 108 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |
| 13C2-8:2-FTS | 109 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:25 | 1 |

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------|-----------|-----|------|---|----------------|----------------|---------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-73688-11

Date Collected: 12/04/23 11:20

Matrix: Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|--------|-----------|-----|------|---|----------------|----------------|---------|
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluorotetradecanoic acid (PFTA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| Perfluorotridecanoic acid (PFTrDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:18 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------|-----------|-----------|----------|----------------|----------------|---------|
| d5-NEtFOSAA | 104 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| 13C2 PFHxA | 106 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| 13C2 PFDA | 103 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 12:18 | 1 |
| 13C3-GenX | 110 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 12:18 | 1 |

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-73688-12

Date Collected: 12/04/23 10:29

Matrix: Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|--------|-----------|-----|------|---|----------------|----------------|---------|
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluorobutanoic acid (PFBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-73688-12

Date Collected: 12/04/23 10:29

Matrix: Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------|-----------|-----|------|---|----------------|----------------|---------|
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluoropentanoic acid (PFPeA) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluoroheptanesulfonic acid (PFHpS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| Perfluoropentanesulfonic acid (PFPeS) | <2.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/11/23 01:35 | 1 |

| Isotope Dilution | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C3 HFPO-DA | 108 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C6 PFDA | 96 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C5 PFHxA | 101 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C4 PFHpA | 96 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C8 PFOA | 96 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C9 PFNA | 99 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C7 PFUnA | 100 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C2 PFDoA | 90 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C4 PFBA | 100 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C5 PFPeA | 99 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C3 PFBS | 103 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C3 PFHxS | 103 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C8 PFOS | 98 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C2-4:2-FTS | 111 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C2-6:2-FTS | 99 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |
| 13C2-8:2-FTS | 99 | | 50 - 200 | 12/09/23 13:30 | 12/11/23 01:35 | 1 |

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|--------|-----------|-----|------|---|----------------|----------------|---------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-73688-12

Date Collected: 12/04/23 10:29

Matrix: Water

Date Received: 12/06/23 10:30

PWSID Number: HI0000331

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--|--------|-----------|-----|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| Perfluorotetradecanoic acid (PFTA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| Perfluorotridecanoic acid (PFTrDA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| 11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 12:28 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------|-----------|-----------|----------|----------------|----------------|---------|
| d5-NEtFOSAA | 103 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| 13C2 PFHxA | 110 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| 13C2 PFDA | 106 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 12:28 | 1 |
| 13C3-GenX | 111 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 12:28 | 1 |

Action Limit Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: MOANALUA WELLS
PWSID Number: HI0000331

Lab Sample ID: 380-73688-1

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 | | | | |
| Alachlor | <0.049 | | ug/L | 2 | | 0.049 | 525.2 | Total/NA |
| Atrazine | <0.049 | | ug/L | 3 | | 0.049 | 525.2 | Total/NA |
| Benzo[a]pyrene | <0.020 | | ug/L | 0.2 | | 0.020 | 525.2 | Total/NA |
| Bis(2-ethylhexyl) phthalate | <0.59 | | ug/L | 6 | | 0.59 | 525.2 | Total/NA |
| Di(2-ethylhexyl)adipate | <0.59 | | ug/L | 400 | | 0.59 | 525.2 | Total/NA |
| Endrin | <0.099 | | ug/L | 2 | | 0.099 | 525.2 | Total/NA |
| Heptachlor | <0.040 | | ug/L | 0.4 | | 0.040 | 525.2 | Total/NA |
| Heptachlor epoxide (isomer B) | <0.049 | | ug/L | 0.2 | | 0.049 | 525.2 | Total/NA |
| Hexachlorobenzene | <0.049 | | ug/L | 1 | | 0.049 | 525.2 | Total/NA |
| Hexachlorocyclopentadiene | <0.049 | | ug/L | 50 | | 0.049 | 525.2 | Total/NA |
| Lindane | <0.040 | | ug/L | 0.2 | | 0.040 | 525.2 | Total/NA |
| Methoxychlor | <0.099 | | ug/L | 40 | | 0.099 | 525.2 | Total/NA |
| Simazine | <0.049 | | ug/L | 4 | | 0.049 | 525.2 | Total/NA |

Client Sample ID: AIEA GULCH WELLS PUMP 2
PWSID Number: HI0000331

Lab Sample ID: 380-73688-2

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 | | | | |
| Alachlor | <0.049 | | ug/L | 2 | | 0.049 | 525.2 | Total/NA |
| Atrazine | <0.049 | | ug/L | 3 | | 0.049 | 525.2 | Total/NA |
| Benzo[a]pyrene | <0.020 | | ug/L | 0.2 | | 0.020 | 525.2 | Total/NA |
| Bis(2-ethylhexyl) phthalate | <0.59 | | ug/L | 6 | | 0.59 | 525.2 | Total/NA |
| Di(2-ethylhexyl)adipate | <0.59 | | ug/L | 400 | | 0.59 | 525.2 | Total/NA |
| Endrin | <0.099 | | ug/L | 2 | | 0.099 | 525.2 | Total/NA |
| Heptachlor | <0.039 | | ug/L | 0.4 | | 0.039 | 525.2 | Total/NA |
| Heptachlor epoxide (isomer B) | <0.049 | | ug/L | 0.2 | | 0.049 | 525.2 | Total/NA |
| Hexachlorobenzene | <0.049 | | ug/L | 1 | | 0.049 | 525.2 | Total/NA |
| Hexachlorocyclopentadiene | <0.049 | | ug/L | 50 | | 0.049 | 525.2 | Total/NA |
| Lindane | <0.039 | | ug/L | 0.2 | | 0.039 | 525.2 | Total/NA |
| Methoxychlor | <0.099 | | ug/L | 40 | | 0.099 | 525.2 | Total/NA |
| Simazine | <0.049 | | ug/L | 4 | | 0.049 | 525.2 | Total/NA |

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
PWSID Number: HI0000331

Lab Sample ID: 380-73688-3

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 | | | | |
| Alachlor | <0.050 | | ug/L | 2 | | 0.050 | 525.2 | Total/NA |
| Atrazine | <0.050 | | ug/L | 3 | | 0.050 | 525.2 | Total/NA |

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Action Limit Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-73688-3

(Continued)

PWSID Number: HI0000331

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 | | | |
| Benzo[a]pyrene | <0.020 | | ug/L | 0.2 | 0.020 | 525.2 | Total/NA |
| Bis(2-ethylhexyl) phthalate | <0.60 | | ug/L | 6 | 0.60 | 525.2 | Total/NA |
| Di(2-ethylhexyl)adipate | <0.60 | | ug/L | 400 | 0.60 | 525.2 | Total/NA |
| Endrin | <0.099 | | ug/L | 2 | 0.099 | 525.2 | Total/NA |
| Heptachlor | <0.040 | | ug/L | 0.4 | 0.040 | 525.2 | Total/NA |
| Heptachlor epoxide (isomer B) | <0.050 | | ug/L | 0.2 | 0.050 | 525.2 | Total/NA |
| Hexachlorobenzene | <0.050 | | ug/L | 1 | 0.050 | 525.2 | Total/NA |
| Hexachlorocyclopentadiene | <0.050 | | ug/L | 50 | 0.050 | 525.2 | Total/NA |
| Lindane | <0.040 | | ug/L | 0.2 | 0.040 | 525.2 | Total/NA |
| Methoxychlor | <0.099 | | ug/L | 40 | 0.099 | 525.2 | Total/NA |
| Simazine | <0.050 | | ug/L | 4 | 0.050 | 525.2 | Total/NA |

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-73688-4

PWSID Number: HI0000331

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 | | | |
| Alachlor | <0.050 | | ug/L | 2 | 0.050 | 525.2 | Total/NA |
| Atrazine | <0.050 | | ug/L | 3 | 0.050 | 525.2 | Total/NA |
| Benzo[a]pyrene | <0.020 | | ug/L | 0.2 | 0.020 | 525.2 | Total/NA |
| Bis(2-ethylhexyl) phthalate | <0.59 | | ug/L | 6 | 0.59 | 525.2 | Total/NA |
| Di(2-ethylhexyl)adipate | <0.59 | | ug/L | 400 | 0.59 | 525.2 | Total/NA |
| Endrin | <0.099 | | ug/L | 2 | 0.099 | 525.2 | Total/NA |
| Heptachlor | <0.040 | | ug/L | 0.4 | 0.040 | 525.2 | Total/NA |
| Heptachlor epoxide (isomer B) | <0.050 | | ug/L | 0.2 | 0.050 | 525.2 | Total/NA |
| Hexachlorobenzene | <0.050 | | ug/L | 1 | 0.050 | 525.2 | Total/NA |
| Hexachlorocyclopentadiene | <0.050 | | ug/L | 50 | 0.050 | 525.2 | Total/NA |
| Lindane | <0.040 | | ug/L | 0.2 | 0.040 | 525.2 | Total/NA |
| Methoxychlor | <0.099 | | ug/L | 40 | 0.099 | 525.2 | Total/NA |
| Simazine | <0.050 | | ug/L | 4 | 0.050 | 525.2 | Total/NA |

Surrogate Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Matrix: Drinking Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|----------------|----------------------------------|--|-----------------|-----------------|
| | | 2NMX (70-130) | PRY (70-130) | TPP (70-130) |
| 380-73688-1 | MOANALUA WELLS | 95 | 93 | 101 |
| 380-73688-1 MS | MOANALUA WELLS | 97 | 108 | 115 |
| 380-73688-2 | AIEA GULCH WELLS PUMP 2 | 96 | 106 | 113 |
| 380-73688-2 DU | AIEA GULCH WELLS PUMP 2 | 113 *3 | 89 *3 | 134 *3 |
| 380-73688-3 | AIEA WELLS PUMPS 1&2 (260) P2 | 98 | 98 | 109 |
| 380-73688-4 | HALAWA WELLS UNITS 1 & 2 P1 | 98 | 101 | 108 |

Surrogate Legend
 2NMX = 2-Nitro-m-xylene
 PRY = Perylene-d12
 TPP = Triphenylphosphate

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|---------------------|------------------------|--|-----------------|-----------------|
| | | 2NMX (70-130) | PRY (70-130) | TPP (70-130) |
| LCS 380-67053/23-A | Lab Control Sample | 95 | 104 | 120 |
| LCSD 380-67053/24-A | Lab Control Sample Dup | 95 | 89 | 104 |
| MB 380-67053/21-A | Method Blank | 97 | 88 | 109 |
| MRL 380-67053/22-A | Lab Control Sample | 103 | 93 | 128 |

Surrogate Legend
 2NMX = 2-Nitro-m-xylene
 PRY = Perylene-d12
 TPP = Triphenylphosphate

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Drinking Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | |
|------------------|----------------------------------|--|-------------------|------------------|------------------|
| | | d5NEFOS (70-130) | PFHxA (70-130) | PFDA (70-130) | GenX (70-130) |
| 380-73688-1 | MOANALUA WELLS | 100 | 109 | 109 | 115 |
| 380-73688-1 LMS | MOANALUA WELLS | 105 | 106 | 112 | 104 |
| 380-73688-1 LMSD | MOANALUA WELLS | 104 | 109 | 110 | 114 |
| 380-73688-2 | AIEA GULCH WELLS PUMP 2 | 104 | 105 | 102 | 109 |
| 380-73688-3 | AIEA WELLS PUMPS 1&2 (260) P2 | 104 | 103 | 99 | 105 |
| 380-73688-4 | HALAWA WELLS UNITS 1 & 2 P1 | 89 | 92 | 89 | 97 |

Surrogate Legend
 d5NEFOS = d5-NEtFOSAA
 PFHxA = 13C2 PFHxA
 PFDA = 13C2 PFDA
 GenX = 13C3-GenX

Surrogate Summary

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-73688-1
 SDG: 525.2, 533 and 537.1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---------------------|-------------------------------------|--|-------------------|------------------|------------------|
| | | d5NEFOS (70-130) | PFHxA (70-130) | PFDA (70-130) | GenX (70-130) |
| 380-73688-9 | FB MOANALUA WELLS | 107 | 109 | 106 | 110 |
| 380-73688-10 | FB AIEA GULCH WELLS PUMP 2 | 101 | 108 | 104 | 107 |
| 380-73688-11 | FB AIEA WELLS PUMPS 1&2 (260) P2 | 104 | 106 | 103 | 110 |
| 380-73688-12 | FB HALAWA WELLS UNITS 1 & 2 P1 | 103 | 110 | 106 | 111 |
| LCS 380-66857/17-A | Lab Control Sample | 102 | 116 | 109 | 122 |
| LCSD 380-66857/18-A | Lab Control Sample Dup | 101 | 114 | 103 | 108 |
| MBL 380-66857/15-A | Method Blank | 105 | 106 | 106 | 110 |
| MRL 380-66857/16-A | Lab Control Sample | 102 | 107 | 106 | 107 |

Surrogate Legend

d5NEFOS = d5-NEtFOSAA
 PFHxA = 13C2 PFHxA
 PFDA = 13C2 PFDA
 GenX = 13C3-GenX



Isotope Dilution Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Matrix: Drinking Water

Prep Type: Total/NA

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|----------------|----------------------------------|---|--------------------|---------------------|--------------------|--------------------|--------------------|---------------------|-------------------|
| Lab Sample ID | Client Sample ID | HFPODA (50-200) | C6PFDA (50-200) | 13C5PHA (50-200) | C4PFHA (50-200) | C8PFOA (50-200) | C9PFNA (50-200) | 13C7PUA (50-200) | PFDoA (50-200) |
| 380-73688-1 | MOANALUA WELLS | 82 | 89 | 78 | 81 | 89 | 87 | 95 | 83 |
| 380-73688-1 MS | MOANALUA WELLS | 78 | 93 | 80 | 75 | 83 | 85 | 85 | 81 |
| 380-73688-2 | AIEA GULCH WELLS PUMP 2 | 94 | 103 | 93 | 87 | 93 | 89 | 91 | 83 |
| 380-73688-2 MS | AIEA GULCH WELLS PUMP 2 | 99 | 100 | 94 | 93 | 97 | 93 | 94 | 89 |
| 380-73688-3 | AIEA WELLS PUMPS 1&2 (260) P2 | 76 | 90 | 77 | 78 | 79 | 86 | 95 | 86 |
| 380-73688-4 | HALAWA WELLS UNITS 1 & 2 P1 | 64 | 85 | 65 | 67 | 72 | 79 | 86 | 80 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|----------------|----------------------------------|---|-------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|
| Lab Sample ID | Client Sample ID | PFBA (50-200) | PFPeA (50-200) | C3PFBS (50-200) | C3PFHS (50-200) | C8PFOS (50-200) | 42FTS (50-200) | 62FTS (50-200) | 82FTS (50-200) |
| 380-73688-1 | MOANALUA WELLS | 76 | 80 | 97 | 103 | 102 | 106 | 108 | 116 |
| 380-73688-1 MS | MOANALUA WELLS | 77 | 79 | 100 | 101 | 101 | 109 | 106 | 118 |
| 380-73688-2 | AIEA GULCH WELLS PUMP 2 | 89 | 88 | 106 | 106 | 103 | 113 | 102 | 110 |
| 380-73688-2 MS | AIEA GULCH WELLS PUMP 2 | 95 | 90 | 102 | 101 | 95 | 109 | 100 | 105 |
| 380-73688-3 | AIEA WELLS PUMPS 1&2 (260) P2 | 76 | 77 | 103 | 105 | 105 | 115 | 101 | 114 |
| 380-73688-4 | HALAWA WELLS UNITS 1 & 2 P1 | 63 | 66 | 96 | 95 | 95 | 108 | 96 | 107 |

Surrogate Legend

- HFPODA = 13C3 HFPO-DA
- C6PFDA = 13C6 PFDA
- 13C5PHA = 13C5 PFHxA
- C4PFHA = 13C4 PFHpA
- C8PFOA = 13C8 PFOA
- C9PFNA = 13C9 PFNA
- 13C7PUA = 13C7 PFUnA
- PFDoA = 13C2 PFDoA
- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- C3PFBS = 13C3 PFBS
- C3PFHS = 13C3 PFHxS
- C8PFOS = 13C8 PFOS
- 42FTS = 13C2-4:2-FTS
- 62FTS = 13C2-6:2-FTS
- 82FTS = 13C2-8:2-FTS

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Matrix: Water

Prep Type: Total/NA

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|--------------------|-------------------------------------|---|--------------------|---------------------|--------------------|--------------------|--------------------|---------------------|-------------------|
| Lab Sample ID | Client Sample ID | HFPODA (50-200) | C6PFDA (50-200) | 13C5PHA (50-200) | C4PFHA (50-200) | C8PFOA (50-200) | C9PFNA (50-200) | 13C7PUA (50-200) | PFDoA (50-200) |
| 380-73688-9 | FB MOANALUA WELLS | 104 | 95 | 103 | 100 | 102 | 94 | 98 | 92 |
| 380-73688-10 | FB AIEA GULCH WELLS PUMP 2 | 111 | 107 | 109 | 101 | 106 | 106 | 95 | 87 |
| 380-73688-11 | FB AIEA WELLS PUMPS 1&2 (260) P2 | 107 | 99 | 105 | 100 | 105 | 103 | 99 | 89 |
| 380-73688-12 | FB HALAWA WELLS UNITS 1 & 2 P1 | 108 | 96 | 101 | 96 | 96 | 99 | 100 | 90 |
| LCS 380-67226/23-A | Lab Control Sample | 105 | 98 | 101 | 99 | 100 | 99 | 100 | 89 |

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Isotope Dilution Summary

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-73688-1
 SDG: 525.2, 533 and 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Matrix: Water

Prep Type: Total/NA

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---------------------|------------------------|---|--------------------|---------------------|--------------------|--------------------|--------------------|---------------------|-------------------|
| Lab Sample ID | Client Sample ID | HFPODA (50-200) | C6PFDA (50-200) | 13C5PHA (50-200) | C4PFHA (50-200) | C8PFOA (50-200) | C9PFNA (50-200) | 13C7PUA (50-200) | PFDoA (50-200) |
| LCSD 380-67226/24-A | Lab Control Sample Dup | 101 | 93 | 95 | 92 | 96 | 96 | 90 | 88 |
| MBL 380-67226/21-A | Method Blank | 98 | 91 | 96 | 92 | 94 | 87 | 89 | 90 |
| MRL 380-67226/22-A | Lab Control Sample | 104 | 99 | 101 | 98 | 100 | 101 | 96 | 101 |

| | | Percent Isotope Dilution Recovery (Acceptance Limits) | | | | | | | |
|---------------------|-------------------------------------|---|-------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|
| Lab Sample ID | Client Sample ID | PFBA (50-200) | PFPeA (50-200) | C3PFBS (50-200) | C3PFHS (50-200) | C8PFOS (50-200) | 42FTS (50-200) | 62FTS (50-200) | 82FTS (50-200) |
| 380-73688-9 | FB MOANALUA WELLS | 98 | 99 | 102 | 103 | 101 | 105 | 98 | 97 |
| 380-73688-10 | FB AIEA GULCH WELLS PUMP 2 | 100 | 101 | 104 | 100 | 100 | 109 | 100 | 100 |
| 380-73688-11 | FB AIEA WELLS PUMPS 1&2 (260) P2 | 103 | 104 | 109 | 107 | 105 | 118 | 108 | 109 |
| 380-73688-12 | FB HALAWA WELLS UNITS 1 & 2 P1 | 100 | 99 | 103 | 103 | 98 | 111 | 99 | 99 |
| LCS 380-67226/23-A | Lab Control Sample | 98 | 98 | 99 | 99 | 97 | 101 | 101 | 101 |
| LCSD 380-67226/24-A | Lab Control Sample Dup | 97 | 96 | 97 | 97 | 97 | 102 | 101 | 100 |
| MBL 380-67226/21-A | Method Blank | 91 | 88 | 95 | 94 | 90 | 98 | 87 | 86 |
| MRL 380-67226/22-A | Lab Control Sample | 99 | 100 | 102 | 100 | 101 | 110 | 104 | 98 |

Surrogate Legend

- HFPODA = 13C3 HFPO-DA
- C6PFDA = 13C6 PFDA
- 13C5PHA = 13C5 PFHxA
- C4PFHA = 13C4 PFHpA
- C8PFOA = 13C8 PFOA
- C9PFNA = 13C9 PFNA
- 13C7PUA = 13C7 PFUnA
- PFDoA = 13C2 PFDoA
- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- C3PFBS = 13C3 PFBS
- C3PFHS = 13C3 PFHxS
- C8PFOS = 13C8 PFOS
- 42FTS = 13C2-4:2-FTS
- 62FTS = 13C2-6:2-FTS
- 82FTS = 13C2-8:2-FTS

QC Sample Results

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-73688-1
 SDG: 525.2, 533 and 537.1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 380-67053/21-A
Matrix: Water
Analysis Batch: 67126

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | MB | MB | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | |
| 1-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| 2,4'-DDD | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| 2,4'-DDE | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| 2,4'-DDT | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| 2,4-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| 2,6-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| 2-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| 4,4'-DDD | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| 4,4'-DDE | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| 4,4'-DDT | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Acenaphthene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Acenaphthylene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Acetochlor | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Alachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| alpha-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| alpha-Chlordane | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Anthracene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Atrazine | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Benz(a)anthracene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Benzo[a]pyrene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Benzo[b]fluoranthene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Benzo[g,h,i]perylene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Benzo[k]fluoranthene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| beta-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.59 | | 0.59 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Bromacil | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Butachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Butylbenzylphthalate | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Chlorobenzilate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Chloroneb | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Chlorothalonil (Draconil, Bravo) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Chlorpyrifos | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Chrysene | <0.020 | | 0.020 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| delta-BHC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Di(2-ethylhexyl)adipate | <0.59 | | 0.59 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Dibenz(a,h)anthracene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Diclorvos (DDVP) | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Dieldrin | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Diethylphthalate | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Dimethylphthalate | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Di-n-butyl phthalate | <0.99 | | 0.99 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Di-n-octyl phthalate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Endosulfan I (Alpha) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Endosulfan II (Beta) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Endosulfan sulfate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Endrin | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Endrin aldehyde | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| EPTC | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 380-67053/21-A
Matrix: Water
Analysis Batch: 67126

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------------|-----------------|-------|------|---|----------------|----------------|---------|
| Fluoranthene | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Fluorene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| gamma-Chlordane | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Heptachlor | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Heptachlor epoxide (isomer B) | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Hexachlorobenzene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Hexachlorocyclopentadiene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Isophorone | <0.50 | | 0.50 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Lindane | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Malathion | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Methoxychlor | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Metolachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Molinate | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Naphthalene | <0.30 | | 0.30 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Parathion | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Pendimethalin (Penoxaline) | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Phenanthrene | <0.040 | | 0.040 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Propachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Pyrene | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Simazine | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Terbacil | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Terbutylazine | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Thiobencarb | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Total Permethrin (mixed isomers) | <0.20 | | 0.20 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| trans-Nonachlor | <0.050 | | 0.050 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| Trifluralin | <0.099 | | 0.099 | ug/L | | 12/08/23 06:07 | 12/08/23 15:44 | 1 |

| <i>Tentatively Identified Compound</i> | MB Est. Result | MB Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|--|-------------------|-----------------|------|---|------|----------|----------------|----------------|---------|
| <i>Decane</i> | 3.04 | T J N | ug/L | | 2.39 | 124-18-5 | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| <i>Cyclopentasiloxane, decamethyl-</i> | 0.504 | T J N | ug/L | | 2.68 | 541-02-6 | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| <i>9-Octadecenamamide, (Z)-</i> | 1.44 | T J N | ug/L | | 7.49 | 301-02-0 | 12/08/23 06:07 | 12/08/23 15:44 | 1 |

| <i>Surrogate</i> | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| <i>2-Nitro-m-xylene</i> | 97 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| <i>Perylene-d12</i> | 88 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 15:44 | 1 |
| <i>Triphenylphosphate</i> | 109 | | 70 - 130 | 12/08/23 06:07 | 12/08/23 15:44 | 1 |

Lab Sample ID: LCS 380-67053/23-A
Matrix: Water
Analysis Batch: 67126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------|----------------|---------------|------------------|------|---|------|----------------|
| 1-Methylnaphthalene | 1.99 | 1.89 | | ug/L | | 95 | 70 - 130 |
| 2,4'-DDD | 1.99 | 2.04 | | ug/L | | 102 | 70 - 130 |
| 2,4'-DDE | 1.99 | 2.04 | | ug/L | | 103 | 70 - 130 |
| 2,4'-DDT | 1.99 | 2.03 | | ug/L | | 102 | 70 - 130 |
| 2,4-Dinitrotoluene | 1.99 | 1.71 | | ug/L | | 86 | 70 - 130 |

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 380-67053/23-A
Matrix: Water
Analysis Batch: 67126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------|-------------|------------|---------------|------|---|------|-------------|
| 2,6-Dinitrotoluene | 1.99 | 1.72 | | ug/L | | 87 | 70 - 130 |
| 2-Methylnaphthalene | 1.99 | 1.92 | | ug/L | | 96 | 70 - 130 |
| 4,4'-DDD | 1.99 | 2.05 | | ug/L | | 103 | 70 - 130 |
| 4,4'-DDE | 1.99 | 2.03 | | ug/L | | 102 | 70 - 130 |
| 4,4'-DDT | 1.99 | 1.96 | | ug/L | | 98 | 70 - 130 |
| Acenaphthene | 1.99 | 1.79 | | ug/L | | 90 | 70 - 130 |
| Acenaphthylene | 1.99 | 1.79 | | ug/L | | 90 | 70 - 130 |
| Acetochlor | 1.99 | 1.81 | | ug/L | | 91 | 70 - 130 |
| Alachlor | 1.99 | 2.20 | | ug/L | | 111 | 70 - 130 |
| alpha-BHC | 1.99 | 1.87 | | ug/L | | 94 | 70 - 130 |
| alpha-Chlordane | 1.99 | 2.28 | | ug/L | | 115 | 70 - 130 |
| Anthracene | 1.99 | 2.02 | | ug/L | | 102 | 70 - 130 |
| Atrazine | 1.99 | 2.02 | | ug/L | | 101 | 70 - 130 |
| Benz(a)anthracene | 1.99 | 2.01 | | ug/L | | 101 | 70 - 130 |
| Benzo[a]pyrene | 1.99 | 1.95 | | ug/L | | 98 | 70 - 130 |
| Benzo[b]fluoranthene | 1.99 | 1.96 | | ug/L | | 99 | 70 - 130 |
| Benzo[g,h,i]perylene | 1.99 | 2.19 | | ug/L | | 110 | 70 - 130 |
| Benzo[k]fluoranthene | 1.99 | 2.02 | | ug/L | | 101 | 70 - 130 |
| beta-BHC | 1.99 | 1.85 | | ug/L | | 93 | 70 - 130 |
| Bis(2-ethylhexyl) phthalate | 1.99 | 1.94 | | ug/L | | 98 | 70 - 130 |
| Bromacil | 1.99 | 2.29 | | ug/L | | 115 | 70 - 130 |
| Butachlor | 1.99 | 2.33 | | ug/L | | 117 | 70 - 130 |
| Butylbenzylphthalate | 1.99 | 2.33 | | ug/L | | 117 | 70 - 130 |
| Chlorobenzilate | 1.99 | 2.10 | | ug/L | | 106 | 70 - 130 |
| Chloroneb | 1.99 | 1.97 | | ug/L | | 99 | 70 - 130 |
| Chlorothalonil (Draconil, Bravo) | 1.99 | 2.06 | | ug/L | | 104 | 70 - 130 |
| Chlorpyrifos | 1.99 | 2.20 | | ug/L | | 111 | 70 - 130 |
| Chrysene | 1.99 | 1.87 | | ug/L | | 94 | 70 - 130 |
| delta-BHC | 1.99 | 1.97 | | ug/L | | 99 | 70 - 130 |
| Di(2-ethylhexyl)adipate | 1.99 | 2.44 | | ug/L | | 123 | 70 - 130 |
| Dibenz(a,h)anthracene | 1.99 | 2.21 | | ug/L | | 111 | 70 - 130 |
| Diclorvos (DDVP) | 1.99 | 1.61 | | ug/L | | 81 | 70 - 130 |
| Dieldrin | 1.99 | 2.04 | | ug/L | | 102 | 70 - 130 |
| Diethylphthalate | 1.99 | 1.83 | | ug/L | | 92 | 70 - 130 |
| Dimethylphthalate | 1.99 | 1.91 | | ug/L | | 96 | 70 - 130 |
| Di-n-butyl phthalate | 3.97 | 4.09 | | ug/L | | 103 | 70 - 130 |
| Di-n-octyl phthalate | 1.99 | 1.94 | | ug/L | | 98 | 70 - 130 |
| Endosulfan I (Alpha) | 1.99 | 2.05 | | ug/L | | 103 | 70 - 130 |
| Endosulfan II (Beta) | 1.99 | 2.21 | | ug/L | | 111 | 70 - 130 |
| Endosulfan sulfate | 1.99 | 2.33 | | ug/L | | 117 | 70 - 130 |
| Endrin | 1.99 | 1.98 | | ug/L | | 100 | 70 - 130 |
| Endrin aldehyde | 1.99 | 1.88 | | ug/L | | 95 | 70 - 130 |
| EPTC | 1.99 | 2.20 | | ug/L | | 111 | 70 - 130 |
| Fluoranthene | 1.99 | 2.06 | | ug/L | | 104 | 70 - 130 |
| Fluorene | 1.99 | 1.90 | | ug/L | | 96 | 70 - 130 |
| gamma-Chlordane | 1.99 | 2.30 | | ug/L | | 116 | 70 - 130 |
| Heptachlor | 1.99 | 2.02 | | ug/L | | 102 | 70 - 130 |
| Heptachlor epoxide (isomer B) | 1.99 | 2.51 | | ug/L | | 126 | 70 - 130 |
| Hexachlorobenzene | 1.99 | 1.91 | | ug/L | | 96 | 70 - 130 |

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 380-67053/23-A
Matrix: Water
Analysis Batch: 67126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------|----------------|---------------|------------------|------|---|------|----------------|
| Hexachlorocyclopentadiene | 1.99 | 1.77 | | ug/L | | 89 | 70 - 130 |
| Indeno[1,2,3-cd]pyrene | 1.99 | 2.20 | | ug/L | | 111 | 70 - 130 |
| Isophorone | 1.99 | 1.64 | | ug/L | | 83 | 70 - 130 |
| Lindane | 1.99 | 1.91 | | ug/L | | 96 | 70 - 130 |
| Malathion | 1.99 | 2.30 | | ug/L | | 116 | 70 - 130 |
| Methoxychlor | 1.99 | 1.84 | | ug/L | | 92 | 70 - 130 |
| Metolachlor | 1.99 | 2.16 | | ug/L | | 109 | 70 - 130 |
| Molinate | 1.99 | 1.99 | | ug/L | | 100 | 70 - 130 |
| Naphthalene | 1.99 | 1.79 | | ug/L | | 90 | 70 - 130 |
| Parathion | 1.99 | 1.85 | | ug/L | | 93 | 70 - 130 |
| Pendimethalin (Penoxaline) | 1.99 | 1.91 | | ug/L | | 96 | 70 - 130 |
| Phenanthrene | 1.99 | 1.92 | | ug/L | | 96 | 70 - 130 |
| Propachlor | 1.99 | 1.83 | | ug/L | | 92 | 70 - 130 |
| Pyrene | 1.99 | 2.05 | | ug/L | | 103 | 70 - 130 |
| Simazine | 1.99 | 2.07 | | ug/L | | 104 | 70 - 130 |
| Terbacil | 1.99 | 1.98 | | ug/L | | 100 | 70 - 130 |
| Terbutylazine | 1.99 | 1.93 | | ug/L | | 97 | 70 - 130 |
| Thiobencarb | 1.99 | 1.97 | | ug/L | | 99 | 70 - 130 |
| trans-Nonachlor | 1.99 | 1.99 | | ug/L | | 100 | 70 - 130 |
| Trifluralin | 1.99 | 2.09 | | ug/L | | 105 | 70 - 130 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|--------------------|------------------|------------------|----------|
| 2-Nitro-m-xylene | 95 | | 70 - 130 |
| Perylene-d12 | 104 | | 70 - 130 |
| Triphenylphosphate | 120 | | 70 - 130 |

Lab Sample ID: LCSD 380-67053/24-A
Matrix: Water
Analysis Batch: 67250

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------------------|----------------|----------------|-------------------|------|---|------|----------------|-----|--------------|
| 1-Methylnaphthalene | 1.98 | 1.75 | | ug/L | | 88 | 70 - 130 | 7 | 20 |
| 2,4'-DDD | 1.98 | 1.94 | | ug/L | | 98 | 70 - 130 | 5 | 20 |
| 2,4'-DDE | 1.98 | 1.74 | | ug/L | | 88 | 70 - 130 | 15 | 20 |
| 2,4'-DDT | 1.98 | 1.99 | | ug/L | | 101 | 70 - 130 | 2 | 20 |
| 2,4-Dinitrotoluene | 1.98 | 1.79 | | ug/L | | 90 | 70 - 130 | 5 | 20 |
| 2,6-Dinitrotoluene | 1.98 | 1.80 | | ug/L | | 91 | 70 - 130 | 4 | 20 |
| 2-Methylnaphthalene | 1.98 | 1.75 | | ug/L | | 88 | 70 - 130 | 9 | 20 |
| 4,4'-DDD | 1.98 | 2.07 | | ug/L | | 105 | 70 - 130 | 1 | 20 |
| 4,4'-DDE | 1.98 | 2.04 | | ug/L | | 103 | 70 - 130 | 1 | 20 |
| 4,4'-DDT | 1.98 | 2.11 | | ug/L | | 106 | 70 - 130 | 7 | 20 |
| Acenaphthene | 1.98 | 1.89 | | ug/L | | 95 | 70 - 130 | 5 | 20 |
| Acenaphthylene | 1.98 | 2.06 | | ug/L | | 104 | 70 - 130 | 14 | 20 |
| Acetochlor | 1.98 | 1.97 | | ug/L | | 99 | 70 - 130 | 8 | 20 |
| Alachlor | 1.98 | 2.07 | | ug/L | | 105 | 70 - 130 | 6 | 20 |
| alpha-BHC | 1.98 | 2.13 | | ug/L | | 108 | 70 - 130 | 13 | 20 |
| alpha-Chlordane | 1.98 | 2.08 | | ug/L | | 105 | 70 - 130 | 9 | 20 |
| Anthracene | 1.98 | 2.02 | | ug/L | | 102 | 70 - 130 | 0 | 20 |

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 380-67053/24-A
Matrix: Water
Analysis Batch: 67250

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec | | RPD | RPD Limit |
|----------------------------------|-------------|-------------|----------------|------|---|------|----------|-----|-----|-----------|
| | | | | | | | Limits | RPD | | |
| Atrazine | 1.98 | 2.02 | | ug/L | | 102 | 70 - 130 | 0 | 20 | |
| Benz(a)anthracene | 1.98 | 1.97 | | ug/L | | 100 | 70 - 130 | 2 | 20 | |
| Benzo[a]pyrene | 1.98 | 1.92 | | ug/L | | 97 | 70 - 130 | 1 | 20 | |
| Benzo[b]fluoranthene | 1.98 | 1.94 | | ug/L | | 98 | 70 - 130 | 1 | 20 | |
| Benzo[g,h,i]perylene | 1.98 | 2.11 | | ug/L | | 106 | 70 - 130 | 4 | 20 | |
| Benzo[k]fluoranthene | 1.98 | 1.90 | | ug/L | | 96 | 70 - 130 | 6 | 20 | |
| beta-BHC | 1.98 | 2.00 | | ug/L | | 101 | 70 - 130 | 8 | 20 | |
| Bis(2-ethylhexyl) phthalate | 1.98 | 2.11 | | ug/L | | 106 | 70 - 130 | 8 | 20 | |
| Bromacil | 1.98 | 2.04 | | ug/L | | 103 | 70 - 130 | 12 | 20 | |
| Butachlor | 1.98 | 2.25 | | ug/L | | 114 | 70 - 130 | 3 | 20 | |
| Butylbenzylphthalate | 1.98 | 2.13 | | ug/L | | 107 | 70 - 130 | 9 | 20 | |
| Chlorobenzilate | 1.98 | 2.15 | | ug/L | | 108 | 70 - 130 | 2 | 20 | |
| Chloroneb | 1.98 | 2.00 | | ug/L | | 101 | 70 - 130 | 1 | 20 | |
| Chlorothalonil (Draconil, Bravo) | 1.98 | 1.90 | | ug/L | | 96 | 70 - 130 | 8 | 20 | |
| Chlorpyrifos | 1.98 | 1.99 | | ug/L | | 100 | 70 - 130 | 10 | 20 | |
| Chrysene | 1.98 | 1.83 | | ug/L | | 93 | 70 - 130 | 2 | 20 | |
| delta-BHC | 1.98 | 1.95 | | ug/L | | 98 | 70 - 130 | 1 | 20 | |
| Di(2-ethylhexyl)adipate | 1.98 | 2.17 | | ug/L | | 110 | 70 - 130 | 11 | 20 | |
| Dibenz(a,h)anthracene | 1.98 | 1.96 | | ug/L | | 99 | 70 - 130 | 12 | 20 | |
| Diclorvos (DDVP) | 1.98 | 1.85 | | ug/L | | 93 | 70 - 130 | 14 | 20 | |
| Dieldrin | 1.98 | 1.82 | | ug/L | | 92 | 70 - 130 | 11 | 20 | |
| Diethylphthalate | 1.98 | 2.13 | | ug/L | | 107 | 70 - 130 | 15 | 20 | |
| Dimethylphthalate | 1.98 | 2.14 | | ug/L | | 108 | 70 - 130 | 12 | 20 | |
| Di-n-butyl phthalate | 3.96 | 3.92 | | ug/L | | 99 | 70 - 130 | 4 | 20 | |
| Di-n-octyl phthalate | 1.98 | 2.07 | | ug/L | | 104 | 70 - 130 | 7 | 20 | |
| Endosulfan I (Alpha) | 1.98 | 1.88 | | ug/L | | 95 | 70 - 130 | 9 | 20 | |
| Endosulfan II (Beta) | 1.98 | 2.04 | | ug/L | | 103 | 70 - 130 | 8 | 20 | |
| Endosulfan sulfate | 1.98 | 1.80 | *1 | ug/L | | 91 | 70 - 130 | 26 | 20 | |
| Endrin | 1.98 | 1.75 | | ug/L | | 89 | 70 - 130 | 12 | 20 | |
| Endrin aldehyde | 1.98 | 1.61 | | ug/L | | 81 | 70 - 130 | 15 | 20 | |
| EPTC | 1.98 | 1.79 | | ug/L | | 91 | 70 - 130 | 20 | 20 | |
| Fluoranthene | 1.98 | 1.94 | | ug/L | | 98 | 70 - 130 | 6 | 20 | |
| Fluorene | 1.98 | 2.22 | | ug/L | | 112 | 70 - 130 | 16 | 20 | |
| gamma-Chlordane | 1.98 | 2.10 | | ug/L | | 106 | 70 - 130 | 9 | 20 | |
| Heptachlor | 1.98 | 1.87 | | ug/L | | 94 | 70 - 130 | 8 | 20 | |
| Heptachlor epoxide (isomer B) | 1.98 | 2.04 | *1 | ug/L | | 103 | 70 - 130 | 21 | 20 | |
| Hexachlorobenzene | 1.98 | 1.79 | | ug/L | | 91 | 70 - 130 | 6 | 20 | |
| Hexachlorocyclopentadiene | 1.98 | 1.72 | | ug/L | | 87 | 70 - 130 | 3 | 20 | |
| Indeno[1,2,3-cd]pyrene | 1.98 | 1.89 | | ug/L | | 95 | 70 - 130 | 15 | 20 | |
| Isophorone | 1.98 | 1.91 | | ug/L | | 96 | 70 - 130 | 15 | 20 | |
| Lindane | 1.98 | 2.08 | | ug/L | | 105 | 70 - 130 | 9 | 20 | |
| Malathion | 1.98 | 1.90 | | ug/L | | 96 | 70 - 130 | 19 | 20 | |
| Methoxychlor | 1.98 | 2.08 | | ug/L | | 105 | 70 - 130 | 12 | 20 | |
| Metolachlor | 1.98 | 1.98 | | ug/L | | 100 | 70 - 130 | 8 | 20 | |
| Molinate | 1.98 | 1.81 | | ug/L | | 91 | 70 - 130 | 9 | 20 | |
| Naphthalene | 1.98 | 1.84 | | ug/L | | 93 | 70 - 130 | 3 | 20 | |
| Parathion | 1.98 | 2.02 | | ug/L | | 102 | 70 - 130 | 8 | 20 | |
| Pendimethalin (Penoxaline) | 1.98 | 1.71 | | ug/L | | 86 | 70 - 130 | 11 | 20 | |
| Phenanthrene | 1.98 | 1.96 | | ug/L | | 99 | 70 - 130 | 2 | 20 | |

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QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 380-67053/24-A
Matrix: Water
Analysis Batch: 67250

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec | | RPD | RPD Limit |
|-----------------|-------------|-------------|----------------|------|---|------|----------|-----|-----|-----------|
| | | | | | | | Limits | RPD | | |
| Propachlor | 1.98 | 1.96 | | ug/L | | 99 | 70 - 130 | 7 | 20 | |
| Pyrene | 1.98 | 1.88 | | ug/L | | 95 | 70 - 130 | 8 | 20 | |
| Simazine | 1.98 | 1.89 | | ug/L | | 95 | 70 - 130 | 9 | 20 | |
| Terbacil | 1.98 | 2.02 | | ug/L | | 102 | 70 - 130 | 2 | 20 | |
| Terbutylazine | 1.98 | 2.08 | | ug/L | | 105 | 70 - 130 | 7 | 20 | |
| Thiobencarb | 1.98 | 1.80 | | ug/L | | 91 | 70 - 130 | 9 | 20 | |
| trans-Nonachlor | 1.98 | 1.93 | | ug/L | | 97 | 70 - 130 | 3 | 20 | |
| Trifluralin | 1.98 | 1.92 | | ug/L | | 97 | 70 - 130 | 9 | 20 | |

| Surrogate | LCSD | | Limits |
|--------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 2-Nitro-m-xylene | 95 | | 70 - 130 |
| Perylene-d12 | 89 | | 70 - 130 |
| Triphenylphosphate | 104 | | 70 - 130 |

Lab Sample ID: MRL 380-67053/22-A
Matrix: Water
Analysis Batch: 67126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec | |
|-----------------------------|-------------|------------|---------------|------|---|------|----------|-----|
| | | | | | | | Limits | RPD |
| 1-Methylnaphthalene | 0.0995 | 0.119 | | ug/L | | 119 | 50 - 150 | |
| 2,4'-DDD | 0.0995 | 0.145 | | ug/L | | 146 | 50 - 150 | |
| 2,4'-DDE | 0.0995 | 0.110 | | ug/L | | 110 | 50 - 150 | |
| 2,4'-DDT | 0.0995 | 0.0956 | J | ug/L | | 96 | 50 - 150 | |
| 2,4-Dinitrotoluene | 0.0995 | 0.0638 | J | ug/L | | 64 | 50 - 150 | |
| 2,6-Dinitrotoluene | 0.0995 | 0.0711 | J | ug/L | | 71 | 50 - 150 | |
| 2-Methylnaphthalene | 0.0995 | 0.109 | | ug/L | | 110 | 50 - 150 | |
| 4,4'-DDD | 0.0995 | 0.107 | | ug/L | | 108 | 50 - 150 | |
| 4,4'-DDE | 0.0995 | 0.135 | | ug/L | | 136 | 50 - 150 | |
| 4,4'-DDT | 0.0995 | 0.131 | | ug/L | | 132 | 50 - 150 | |
| Acenaphthene | 0.0995 | 0.0879 | J | ug/L | | 88 | 50 - 150 | |
| Acenaphthylene | 0.0995 | 0.0863 | J | ug/L | | 87 | 50 - 150 | |
| Acetochlor | 0.0497 | 0.0377 | J | ug/L | | 76 | 50 - 150 | |
| Alachlor | 0.0497 | 0.0509 | | ug/L | | 102 | 50 - 150 | |
| alpha-BHC | 0.0995 | 0.0850 | J | ug/L | | 85 | 50 - 150 | |
| alpha-Chlordane | 0.0249 | 0.0352 | J | ug/L | | 142 | 50 - 150 | |
| Anthracene | 0.0199 | <0.019 | | ug/L | | 93 | 50 - 150 | |
| Atrazine | 0.0497 | <0.048 | | ug/L | | 74 | 50 - 150 | |
| Benz(a)anthracene | 0.0497 | 0.0438 | J | ug/L | | 88 | 50 - 150 | |
| Benzo[a]pyrene | 0.0199 | 0.0151 | J | ug/L | | 76 | 50 - 150 | |
| Benzo[b]fluoranthene | 0.0199 | 0.0164 | J | ug/L | | 82 | 50 - 150 | |
| Benzo[g,h,i]perylene | 0.0497 | 0.0404 | J | ug/L | | 81 | 50 - 150 | |
| Benzo[k]fluoranthene | 0.0199 | 0.0176 | J | ug/L | | 89 | 50 - 150 | |
| beta-BHC | 0.0995 | 0.0953 | J | ug/L | | 96 | 50 - 150 | |
| Bis(2-ethylhexyl) phthalate | 0.597 | 0.622 | | ug/L | | 104 | 50 - 150 | |
| Bromacil | 0.0995 | 0.0835 | J | ug/L | | 84 | 50 - 150 | |
| Butachlor | 0.0497 | 0.0676 | | ug/L | | 136 | 50 - 150 | |
| Butylbenzylphthalate | 0.149 | 0.200 | J | ug/L | | 134 | 50 - 150 | |
| Chlorobenzilate | 0.0995 | 0.102 | | ug/L | | 103 | 50 - 150 | |

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MRL 380-67053/22-A
Matrix: Water
Analysis Batch: 67126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------|----------------|---------------|------------------|------|---|------|----------------|
| Chloroneb | 0.0995 | 0.103 | | ug/L | | 103 | 50 - 150 |
| Chlorothalonil (Draconil, Bravo) | 0.0995 | 0.147 | | ug/L | | 148 | 50 - 150 |
| Chlorpyrifos | 0.0497 | 0.0554 | | ug/L | | 111 | 50 - 150 |
| Chrysene | 0.0199 | 0.0193 | J | ug/L | | 97 | 50 - 150 |
| delta-BHC | 0.0995 | 0.113 | | ug/L | | 113 | 50 - 150 |
| Di(2-ethylhexyl)adipate | 0.298 | 0.412 | J | ug/L | | 138 | 50 - 150 |
| Dibenz(a,h)anthracene | 0.0497 | 0.0377 | J | ug/L | | 76 | 50 - 150 |
| Diclorvos (DDVP) | 0.0497 | 0.0327 | J | ug/L | | 66 | 50 - 150 |
| Dieldrin | 0.0995 | 0.115 | J | ug/L | | 115 | 50 - 150 |
| Diethylphthalate | 0.149 | 0.135 | J | ug/L | | 91 | 50 - 150 |
| Dimethylphthalate | 0.298 | 0.243 | J | ug/L | | 81 | 50 - 150 |
| Di-n-butyl phthalate | 0.298 | 0.415 | J | ug/L | | 139 | 49 - 243 |
| Di-n-octyl phthalate | 0.0995 | 0.116 | | ug/L | | 116 | 50 - 150 |
| Endosulfan I (Alpha) | 0.0995 | 0.104 | | ug/L | | 105 | 50 - 150 |
| Endosulfan II (Beta) | 0.0995 | 0.140 | | ug/L | | 141 | 50 - 150 |
| Endosulfan sulfate | 0.0995 | 0.107 | | ug/L | | 108 | 50 - 150 |
| Endrin | 0.0995 | 0.0838 | J | ug/L | | 84 | 50 - 150 |
| Endrin aldehyde | 0.0995 | 0.136 | | ug/L | | 137 | 50 - 150 |
| EPTC | 0.0995 | 0.0898 | J | ug/L | | 90 | 50 - 150 |
| Fluoranthene | 0.0497 | 0.0528 | J | ug/L | | 106 | 50 - 150 |
| Fluorene | 0.0497 | <0.050 | | ug/L | | 85 | 50 - 150 |
| gamma-Chlordane | 0.0249 | 0.0339 | J | ug/L | | 136 | 50 - 150 |
| Heptachlor | 0.0398 | 0.0443 | | ug/L | | 111 | 50 - 150 |
| Heptachlor epoxide (isomer B) | 0.0497 | 0.0631 | | ug/L | | 127 | 50 - 150 |
| Hexachlorobenzene | 0.0497 | <0.041 | | ug/L | | 69 | 50 - 150 |
| Hexachlorocyclopentadiene | 0.0497 | 0.0458 | J | ug/L | | 92 | 50 - 150 |
| Indeno[1,2,3-cd]pyrene | 0.0497 | 0.0369 | J | ug/L | | 74 | 50 - 150 |
| Isophorone | 0.0995 | 0.0863 | J | ug/L | | 87 | 50 - 150 |
| Lindane | 0.0398 | 0.0344 | J | ug/L | | 86 | 50 - 150 |
| Malathion | 0.0995 | 0.101 | | ug/L | | 102 | 50 - 150 |
| Methoxychlor | 0.0995 | 0.0985 | J | ug/L | | 99 | 50 - 150 |
| Metolachlor | 0.0497 | 0.0621 | | ug/L | | 125 | 50 - 150 |
| Molinate | 0.0995 | 0.0815 | J | ug/L | | 82 | 50 - 150 |
| Naphthalene | 0.0995 | 0.113 | J | ug/L | | 114 | 50 - 150 |
| Parathion | 0.0995 | 0.127 | | ug/L | | 128 | 50 - 150 |
| Pendimethalin (Penoxaline) | 0.0995 | 0.102 | | ug/L | | 103 | 50 - 150 |
| Phenanthrene | 0.0199 | 0.0212 | J | ug/L | | 107 | 50 - 150 |
| Propachlor | 0.0497 | 0.0403 | J | ug/L | | 81 | 50 - 150 |
| Pyrene | 0.0497 | 0.0541 | | ug/L | | 109 | 50 - 150 |
| Simazine | 0.0497 | 0.0393 | J | ug/L | | 79 | 50 - 150 |
| Terbacil | 0.0995 | 0.103 | | ug/L | | 104 | 50 - 150 |
| Terbutylazine | 0.0995 | 0.0912 | J | ug/L | | 92 | 50 - 150 |
| Thiobencarb | 0.0995 | 0.111 | J | ug/L | | 111 | 50 - 150 |
| trans-Nonachlor | 0.0249 | 0.0321 | J | ug/L | | 129 | 50 - 150 |
| Trifluralin | 0.0995 | 0.0652 | J | ug/L | | 66 | 50 - 150 |

| Surrogate | MRL %Recovery | MRL Qualifier | Limits |
|------------------|------------------|------------------|----------|
| 2-Nitro-m-xylene | 103 | | 70 - 130 |

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MRL 380-67053/22-A
Matrix: Water
Analysis Batch: 67126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67053

| Surrogate | MRL %Recovery | MRL Qualifier | Limits |
|--------------------|------------------|------------------|----------|
| Perylene-d12 | 93 | | 70 - 130 |
| Triphenylphosphate | 128 | | 70 - 130 |

Lab Sample ID: 380-73688-1 MS
Matrix: Drinking Water
Analysis Batch: 67126

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|----------------|
| 1-Methylnaphthalene | <0.099 | | 1.97 | 1.95 | | ug/L | | 99 | 70 - 130 |
| 2,4'-DDD | <0.099 | | 1.97 | 2.08 | | ug/L | | 106 | 70 - 130 |
| 2,4'-DDE | <0.099 | | 1.97 | 2.05 | | ug/L | | 104 | 70 - 130 |
| 2,4'-DDT | <0.099 | | 1.97 | 2.01 | | ug/L | | 102 | 70 - 130 |
| 2,4-Dinitrotoluene | <0.099 | | 1.97 | 1.84 | | ug/L | | 94 | 70 - 130 |
| 2,6-Dinitrotoluene | <0.099 | | 1.97 | 1.76 | | ug/L | | 89 | 70 - 130 |
| 2-Methylnaphthalene | <0.099 | | 1.97 | 2.01 | | ug/L | | 102 | 70 - 130 |
| 4,4'-DDD | <0.099 | | 1.97 | 2.05 | | ug/L | | 104 | 70 - 130 |
| 4,4'-DDE | <0.099 | | 1.97 | 1.95 | | ug/L | | 99 | 70 - 130 |
| 4,4'-DDT | <0.099 | | 1.97 | 1.87 | | ug/L | | 95 | 70 - 130 |
| Acenaphthene | <0.099 | | 1.97 | 1.85 | | ug/L | | 94 | 70 - 130 |
| Acenaphthylene | <0.099 | | 1.97 | 1.88 | | ug/L | | 96 | 70 - 130 |
| Acetochlor | <0.099 | | 1.97 | 1.83 | | ug/L | | 93 | 70 - 130 |
| Alachlor | <0.049 | | 1.97 | 2.21 | | ug/L | | 112 | 70 - 130 |
| alpha-BHC | <0.099 | | 1.97 | 1.92 | | ug/L | | 98 | 70 - 130 |
| alpha-Chlordane | <0.049 | | 1.97 | 2.25 | | ug/L | | 115 | 70 - 130 |
| Anthracene | <0.020 | | 1.97 | 1.99 | | ug/L | | 101 | 70 - 130 |
| Atrazine | <0.049 | | 1.97 | 2.08 | | ug/L | | 106 | 70 - 130 |
| Benz(a)anthracene | <0.049 | | 1.97 | 2.02 | | ug/L | | 103 | 70 - 130 |
| Benzo[a]pyrene | <0.020 | | 1.97 | 1.99 | | ug/L | | 101 | 70 - 130 |
| Benzo[b]fluoranthene | <0.020 | | 1.97 | 1.93 | | ug/L | | 98 | 70 - 130 |
| Benzo[g,h,i]perylene | <0.049 | | 1.97 | 2.12 | | ug/L | | 108 | 70 - 130 |
| Benzo[k]fluoranthene | <0.020 | | 1.97 | 2.05 | | ug/L | | 104 | 70 - 130 |
| beta-BHC | <0.099 | | 1.97 | 1.93 | | ug/L | | 98 | 70 - 130 |
| Bis(2-ethylhexyl) phthalate | <0.59 | | 1.97 | 1.76 | | ug/L | | 90 | 70 - 130 |
| Bromacil | <0.099 | | 1.97 | 2.35 | | ug/L | | 120 | 70 - 130 |
| Butachlor | <0.049 | | 1.97 | 2.38 | | ug/L | | 121 | 70 - 130 |
| Butylbenzylphthalate | <0.49 | | 1.97 | 2.33 | | ug/L | | 118 | 70 - 130 |
| Chlorobenzilate | <0.099 | | 1.97 | 2.09 | | ug/L | | 106 | 70 - 130 |
| Chloroneb | <0.099 | | 1.97 | 2.00 | | ug/L | | 102 | 70 - 130 |
| Chlorothalonil (Draconil, Bravo) | <0.099 | | 1.97 | 2.08 | | ug/L | | 106 | 70 - 130 |
| Chlorpyrifos | <0.049 | | 1.97 | 2.16 | | ug/L | | 110 | 70 - 130 |
| Chrysene | <0.020 | | 1.97 | 1.93 | | ug/L | | 98 | 70 - 130 |
| delta-BHC | <0.099 | | 1.97 | 1.97 | | ug/L | | 100 | 70 - 130 |
| Di(2-ethylhexyl)adipate | <0.59 | | 1.97 | 2.11 | | ug/L | | 107 | 70 - 130 |
| Dibenz(a,h)anthracene | <0.049 | | 1.97 | 2.05 | | ug/L | | 104 | 70 - 130 |
| Diclorvos (DDVP) | <0.049 | | 1.97 | 1.62 | | ug/L | | 83 | 70 - 130 |
| Dieldrin | <0.20 | | 1.97 | 2.18 | | ug/L | | 111 | 70 - 130 |
| Diethylphthalate | <0.49 | | 1.97 | 1.94 | | ug/L | | 99 | 70 - 130 |
| Dimethylphthalate | <0.49 | | 1.97 | 1.95 | | ug/L | | 99 | 70 - 130 |

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-73688-2 DU
Matrix: Drinking Water
Analysis Batch: 67126

Client Sample ID: AIEA GULCH WELLS PUMP 2
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | Limit |
|----------------------------------|---------------|------------------|-----------|--------------|------|---|-----|-------|
| 2,4'-DDT | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| 2,4-Dinitrotoluene | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| 2,6-Dinitrotoluene | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| 2-Methylnaphthalene | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| 4,4'-DDD | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| 4,4'-DDE | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| 4,4'-DDT | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Acenaphthene | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Acenaphthylene | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Acetochlor | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Alachlor | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| alpha-BHC | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| alpha-Chlordane | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Anthracene | <0.020 | | <0.020 | *3 | ug/L | | NC | 20 |
| Atrazine | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Benz(a)anthracene | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Benzo[a]pyrene | <0.020 | | <0.020 | *3 | ug/L | | NC | 20 |
| Benzo[b]fluoranthene | <0.020 | | <0.020 | *3 | ug/L | | NC | 20 |
| Benzo[g,h,i]perylene | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Benzo[k]fluoranthene | <0.020 | | <0.020 | *3 | ug/L | | NC | 20 |
| beta-BHC | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Bis(2-ethylhexyl) phthalate | <0.59 | | <0.60 | *3 | ug/L | | NC | 20 |
| Bromacil | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Butachlor | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Butylbenzylphthalate | <0.49 | | <0.50 | *3 | ug/L | | NC | 20 |
| Chlorobenzilate | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Chloroneb | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Chlorothalonil (Draconil, Bravo) | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Chlorpyrifos | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Chrysene | <0.020 | | <0.020 | *3 | ug/L | | NC | 20 |
| delta-BHC | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Di(2-ethylhexyl)adipate | <0.59 | | <0.60 | *3 | ug/L | | NC | 20 |
| Dibenz(a,h)anthracene | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Diclorvos (DDVP) | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Dieldrin | <0.20 | | <0.20 | *3 | ug/L | | NC | 20 |
| Diethylphthalate | <0.49 | | <0.50 | *3 | ug/L | | NC | 20 |
| Dimethylphthalate | <0.49 | | <0.50 | *3 | ug/L | | NC | 20 |
| Di-n-butyl phthalate | <0.99 | | <0.99 | *3 | ug/L | | NC | 20 |
| Di-n-octyl phthalate | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Endosulfan I (Alpha) | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Endosulfan II (Beta) | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Endosulfan sulfate | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Endrin | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Endrin aldehyde | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| EPTC | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Fluoranthene | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Fluorene | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| gamma-Chlordane | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Heptachlor | <0.039 | | <0.040 | *3 | ug/L | | NC | 20 |

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-73688-2 DU
Matrix: Drinking Water
Analysis Batch: 67126

Client Sample ID: AIEA GULCH WELLS PUMP 2
Prep Type: Total/NA
Prep Batch: 67053

| Analyte | Sample | Sample | DU | DU | Unit | D | RPD | Limit |
|----------------------------------|--------|-----------|--------|-----------|------|---|-----|-------|
| | Result | Qualifier | Result | Qualifier | | | | |
| Heptachlor epoxide (isomer B) | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Hexachlorobenzene | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Hexachlorocyclopentadiene | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Indeno[1,2,3-cd]pyrene | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Isophorone | <0.49 | | <0.50 | *3 | ug/L | | NC | 20 |
| Lindane | <0.039 | | <0.040 | *3 | ug/L | | NC | 20 |
| Malathion | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Methoxychlor | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Metolachlor | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Molinate | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Naphthalene | <0.30 | | <0.30 | *3 | ug/L | | NC | 20 |
| Parathion | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Pendimethalin (Penoxaline) | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Phenanthrene | <0.039 | | <0.040 | *3 | ug/L | | NC | 20 |
| Propachlor | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Pyrene | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Simazine | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Terbacil | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Terbutylazine | <0.099 | | <0.099 | *3 | ug/L | | NC | 20 |
| Thiobencarb | <0.20 | | <0.20 | *3 | ug/L | | NC | 20 |
| Total Permethrin (mixed isomers) | <0.20 | | <0.20 | | ug/L | | NC | 20 |
| trans-Nonachlor | <0.049 | | <0.050 | *3 | ug/L | | NC | 20 |
| Trifluralin | <0.099 | ^+ | <0.099 | *3 | ug/L | | NC | 20 |

| Surrogate | DU | DU | Limits |
|--------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 2-Nitro-m-xylene | 113 | *3 | 70 - 130 |
| Perylene-d12 | 89 | *3 | 70 - 130 |
| Triphenylphosphate | 134 | *3 S1+ | 70 - 130 |

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Lab Sample ID: MBL 380-67226/21-A
Matrix: Water
Analysis Batch: 67268

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67226

| Analyte | MBL | MBL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------|-----------|-----|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | |
| 11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS) | <0.30 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS) | <0.30 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <0.60 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <1.0 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <0.37 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluorodecanoic acid (PFDA) | <0.31 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluorododecanoic acid (PFDoA) | <0.54 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <0.39 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <0.32 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluorohexanoic acid (PFHxA) | <0.46 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |

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QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: MBL 380-67226/21-A
Matrix: Water
Analysis Batch: 67268

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67226

| Analyte | MBL Result | MBL Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|------------|---------------|-----|------|---|----------------|----------------|---------|
| Perfluorononanoic acid (PFNA) | <0.40 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <0.43 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluorooctanoic acid (PFOA) | <0.38 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <0.42 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluorobutanoic acid (PFBA) | <0.69 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | <0.38 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | <0.37 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | <0.48 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | <0.47 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA) | <0.25 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | <0.46 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | <0.15 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluoropentanoic acid (PFPeA) | <0.38 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluoroheptanesulfonic acid (PFHpS) | <0.36 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| Perfluoropentanesulfonic acid (PFPeS) | <0.39 | | 2.0 | ng/L | | 12/09/23 13:30 | 12/10/23 22:22 | 1 |

| Isotope Dilution | MBL %Recovery | MBL Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------|---------------|---------------|----------|----------------|----------------|---------|
| 13C3 HFPO-DA | 98 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C6 PFDA | 91 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C5 PFHxA | 96 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C4 PFHpA | 92 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C8 PFOA | 94 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C9 PFNA | 87 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C7 PFUnA | 89 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C2 PFDoA | 90 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C4 PFBA | 91 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C5 PFPeA | 88 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C3 PFBS | 95 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C3 PFHxS | 94 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C8 PFOS | 90 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C2-4:2-FTS | 98 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C2-6:2-FTS | 87 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |
| 13C2-8:2-FTS | 86 | | 50 - 200 | 12/09/23 13:30 | 12/10/23 22:22 | 1 |

Lab Sample ID: LCS 380-67226/23-A
Matrix: Water
Analysis Batch: 67268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67226

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|-------------|------------|---------------|------|---|------|-------------|
| 11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS) | 120 | 112 | | ng/L | | 94 | 70 - 130 |

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QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: LCS 380-67226/23-A
Matrix: Water
Analysis Batch: 67268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67226

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--|-------------|------------|---------------|------|---|------|-------------|
| 9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS) | 120 | 104 | | ng/L | | 87 | 70 - 130 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | 120 | 108 | | ng/L | | 90 | 70 - 130 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | 120 | 113 | | ng/L | | 94 | 70 - 130 |
| Perfluorobutanesulfonic acid (PFBS) | 120 | 109 | | ng/L | | 91 | 70 - 130 |
| Perfluorodecanoic acid (PFDA) | 120 | 117 | | ng/L | | 98 | 70 - 130 |
| Perfluorododecanoic acid (PFDoA) | 120 | 129 | | ng/L | | 108 | 70 - 130 |
| Perfluoroheptanoic acid (PFHpA) | 120 | 117 | | ng/L | | 98 | 70 - 130 |
| Perfluorohexanesulfonic acid (PFHxS) | 120 | 120 | | ng/L | | 100 | 70 - 130 |
| Perfluorohexanoic acid (PFHxA) | 120 | 113 | | ng/L | | 94 | 70 - 130 |
| Perfluorononanoic acid (PFNA) | 120 | 117 | | ng/L | | 98 | 70 - 130 |
| Perfluorooctanesulfonic acid (PFOS) | 120 | 114 | | ng/L | | 95 | 70 - 130 |
| Perfluorooctanoic acid (PFOA) | 120 | 120 | | ng/L | | 100 | 70 - 130 |
| Perfluoroundecanoic acid (PFUnA) | 120 | 119 | | ng/L | | 99 | 70 - 130 |
| Perfluorobutanoic acid (PFBA) | 120 | 116 | | ng/L | | 96 | 70 - 130 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | 120 | 112 | | ng/L | | 93 | 70 - 130 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | 120 | 117 | | ng/L | | 97 | 70 - 130 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | 120 | 113 | | ng/L | | 94 | 70 - 130 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | 120 | 123 | | ng/L | | 102 | 70 - 130 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA) | 120 | 107 | | ng/L | | 89 | 70 - 130 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | 120 | 114 | | ng/L | | 95 | 70 - 130 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | 120 | 118 | | ng/L | | 99 | 70 - 130 |
| Perfluoropentanoic acid (PFPeA) | 120 | 117 | | ng/L | | 98 | 70 - 130 |
| Perfluoroheptanesulfonic acid (PFHpS) | 120 | 115 | | ng/L | | 96 | 70 - 130 |
| Perfluoropentanesulfonic acid (PFPeS) | 120 | 113 | | ng/L | | 94 | 70 - 130 |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits |
|------------------|---------------|---------------|----------|
| 13C3 HFPO-DA | 105 | | 50 - 200 |
| 13C6 PFDA | 98 | | 50 - 200 |
| 13C5 PFHxA | 101 | | 50 - 200 |
| 13C4 PFHpA | 99 | | 50 - 200 |
| 13C8 PFOA | 100 | | 50 - 200 |
| 13C9 PFNA | 99 | | 50 - 200 |
| 13C7 PFUnA | 100 | | 50 - 200 |
| 13C2 PFDoA | 89 | | 50 - 200 |
| 13C4 PFBA | 98 | | 50 - 200 |

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: LCS 380-67226/23-A
Matrix: Water
Analysis Batch: 67268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67226

| <i>Isotope Dilution</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> |
|-------------------------|------------------|------------------|---------------|
| 13C5 PFPeA | 98 | | 50 - 200 |
| 13C3 PFBS | 99 | | 50 - 200 |
| 13C3 PFHxS | 99 | | 50 - 200 |
| 13C8 PFOS | 97 | | 50 - 200 |
| 13C2-4:2-FTS | 101 | | 50 - 200 |
| 13C2-6:2-FTS | 101 | | 50 - 200 |
| 13C2-8:2-FTS | 101 | | 50 - 200 |

Lab Sample ID: LCSD 380-67226/24-A
Matrix: Water
Analysis Batch: 67268

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67226

| <i>Analyte</i> | <i>Spike Added</i> | <i>LCSD Result</i> | <i>LCSD Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec Limits</i> | <i>RPD</i> | <i>RPD Limit</i> |
|---|--------------------|--------------------|-----------------------|-------------|----------|-------------|--------------------|------------|------------------|
| 11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | 120 | 122 | | ng/L | | 101 | 70 - 130 | 8 | 30 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | 120 | 113 | | ng/L | | 93 | 70 - 130 | 8 | 30 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | 120 | 117 | | ng/L | | 97 | 70 - 130 | 8 | 30 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | 120 | 123 | | ng/L | | 102 | 70 - 130 | 8 | 30 |
| Perfluorobutanesulfonic acid (PFBS) | 120 | 119 | | ng/L | | 98 | 70 - 130 | 9 | 30 |
| Perfluorodecanoic acid (PFDA) | 120 | 130 | | ng/L | | 108 | 70 - 130 | 10 | 30 |
| Perfluorododecanoic acid (PFDoA) | 120 | 130 | | ng/L | | 108 | 70 - 130 | 1 | 30 |
| Perfluoroheptanoic acid (PFHpA) | 120 | 127 | | ng/L | | 105 | 70 - 130 | 8 | 30 |
| Perfluorohexanesulfonic acid (PFHxS) | 120 | 128 | | ng/L | | 106 | 70 - 130 | 6 | 30 |
| Perfluorohexanoic acid (PFHxA) | 120 | 118 | | ng/L | | 98 | 70 - 130 | 5 | 30 |
| Perfluorononanoic acid (PFNA) | 120 | 121 | | ng/L | | 101 | 70 - 130 | 4 | 30 |
| Perfluorooctanesulfonic acid (PFOS) | 120 | 123 | | ng/L | | 102 | 70 - 130 | 8 | 30 |
| Perfluorooctanoic acid (PFOA) | 120 | 124 | | ng/L | | 103 | 70 - 130 | 4 | 30 |
| Perfluoroundecanoic acid (PFUnA) | 120 | 123 | | ng/L | | 102 | 70 - 130 | 3 | 30 |
| Perfluorobutanoic acid (PFBA) | 120 | 119 | | ng/L | | 99 | 70 - 130 | 3 | 30 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | 120 | 120 | | ng/L | | 100 | 70 - 130 | 7 | 30 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | 120 | 124 | | ng/L | | 103 | 70 - 130 | 6 | 30 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | 120 | 118 | | ng/L | | 98 | 70 - 130 | 5 | 30 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | 120 | 122 | | ng/L | | 101 | 70 - 130 | 0 | 30 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA) | 120 | 122 | | ng/L | | 101 | 70 - 130 | 13 | 30 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | 120 | 122 | | ng/L | | 101 | 70 - 130 | 6 | 30 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | 120 | 122 | | ng/L | | 101 | 70 - 130 | 3 | 30 |

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: LCSD 380-67226/24-A
Matrix: Water
Analysis Batch: 67268

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67226

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------------------------------------|------------------|------------------|----------------|------|---|------|-------------|-----|-----------|
| | | | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | 120 | 119 | | ng/L | | 99 | 70 - 130 | 2 | 30 |
| Perfluoroheptanesulfonic acid (PFHpS) | 120 | 115 | | ng/L | | 96 | 70 - 130 | 1 | 30 |
| Perfluoropentanesulfonic acid (PFPeS) | 120 | 125 | | ng/L | | 104 | 70 - 130 | 10 | 30 |
| LCSD LCSD | | | | | | | | | |
| Isotope Dilution | %Recovery | Qualifier | Limits | | | | | | |
| 13C3 HFPO-DA | 101 | | 50 - 200 | | | | | | |
| 13C6 PFDA | 93 | | 50 - 200 | | | | | | |
| 13C5 PFHxA | 95 | | 50 - 200 | | | | | | |
| 13C4 PFHpA | 92 | | 50 - 200 | | | | | | |
| 13C8 PFOA | 96 | | 50 - 200 | | | | | | |
| 13C9 PFNA | 96 | | 50 - 200 | | | | | | |
| 13C7 PFUnA | 90 | | 50 - 200 | | | | | | |
| 13C2 PFDoA | 88 | | 50 - 200 | | | | | | |
| 13C4 PFBA | 97 | | 50 - 200 | | | | | | |
| 13C5 PFPeA | 96 | | 50 - 200 | | | | | | |
| 13C3 PFBS | 97 | | 50 - 200 | | | | | | |
| 13C3 PFHxS | 97 | | 50 - 200 | | | | | | |
| 13C8 PFOS | 97 | | 50 - 200 | | | | | | |
| 13C2-4:2-FTS | 102 | | 50 - 200 | | | | | | |
| 13C2-6:2-FTS | 101 | | 50 - 200 | | | | | | |
| 13C2-8:2-FTS | 100 | | 50 - 200 | | | | | | |

Lab Sample ID: MRL 380-67226/22-A
Matrix: Water
Analysis Batch: 67268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67226

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits | | |
|--|-------------|------------|---------------|------|---|------|-------------|--|--|
| | | | | | | | | | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | 2.01 | 1.92 | J | ng/L | | 96 | 50 - 150 | | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | 2.01 | 1.85 | J | ng/L | | 92 | 50 - 150 | | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | 2.01 | 1.96 | J | ng/L | | 98 | 50 - 150 | | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | 2.01 | 2.03 | J | ng/L | | 101 | 50 - 150 | | |
| Perfluorobutanesulfonic acid (PFBS) | 2.01 | 1.99 | J | ng/L | | 99 | 50 - 150 | | |
| Perfluorodecanoic acid (PFDA) | 2.01 | 2.08 | J | ng/L | | 103 | 50 - 150 | | |
| Perfluorododecanoic acid (PFDoA) | 2.01 | 2.02 | J | ng/L | | 101 | 50 - 150 | | |
| Perfluoroheptanoic acid (PFHpA) | 2.01 | 2.11 | J | ng/L | | 105 | 50 - 150 | | |
| Perfluorohexanesulfonic acid (PFHxS) | 2.01 | 2.14 | J | ng/L | | 107 | 50 - 150 | | |
| Perfluorohexanoic acid (PFHxA) | 2.01 | 2.12 | J | ng/L | | 106 | 50 - 150 | | |
| Perfluorononanoic acid (PFNA) | 2.01 | 2.12 | J | ng/L | | 106 | 50 - 150 | | |
| Perfluorooctanesulfonic acid (PFOS) | 2.01 | 2.19 | J | ng/L | | 109 | 50 - 150 | | |
| Perfluorooctanoic acid (PFOA) | 2.01 | 2.28 | J | ng/L | | 114 | 50 - 150 | | |

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: MRL 380-67226/22-A
Matrix: Water
Analysis Batch: 67268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67226

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|---|-------------|------------|---------------|------|---|------|-------------|
| Perfluoroundecanoic acid (PFUnA) | 2.01 | 2.13 | J | ng/L | | 106 | 50 - 150 |
| Perfluorobutanoic acid (PFBA) | 2.01 | 2.20 | J | ng/L | | 109 | 50 - 150 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | 2.01 | 2.02 | J | ng/L | | 100 | 50 - 150 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | 2.01 | 2.20 | J | ng/L | | 110 | 50 - 150 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | 2.01 | 2.07 | J | ng/L | | 103 | 50 - 150 |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) | 2.01 | 2.11 | J | ng/L | | 105 | 50 - 150 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA) | 2.01 | 2.08 | J | ng/L | | 104 | 50 - 150 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | 2.01 | 2.02 | J | ng/L | | 101 | 50 - 150 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | 2.01 | 1.99 | J | ng/L | | 99 | 50 - 150 |
| Perfluoropentanoic acid (PFPeA) | 2.01 | 2.01 | J | ng/L | | 100 | 50 - 150 |
| Perfluoroheptanesulfonic acid (PFHpS) | 2.01 | 1.95 | J | ng/L | | 97 | 50 - 150 |
| Perfluoropentanesulfonic acid (PFPeS) | 2.01 | 1.99 | J | ng/L | | 99 | 50 - 150 |

| Isotope Dilution | MRL %Recovery | MRL Qualifier | Limits |
|------------------|---------------|---------------|----------|
| 13C3 HFPO-DA | 104 | | 50 - 200 |
| 13C6 PFDA | 99 | | 50 - 200 |
| 13C5 PFHxA | 101 | | 50 - 200 |
| 13C4 PFHpA | 98 | | 50 - 200 |
| 13C8 PFOA | 100 | | 50 - 200 |
| 13C9 PFNA | 101 | | 50 - 200 |
| 13C7 PFUnA | 96 | | 50 - 200 |
| 13C2 PFDoA | 101 | | 50 - 200 |
| 13C4 PFBA | 99 | | 50 - 200 |
| 13C5 PFPeA | 100 | | 50 - 200 |
| 13C3 PFBS | 102 | | 50 - 200 |
| 13C3 PFHxS | 100 | | 50 - 200 |
| 13C8 PFOS | 101 | | 50 - 200 |
| 13C2-4:2-FTS | 110 | | 50 - 200 |
| 13C2-6:2-FTS | 104 | | 50 - 200 |
| 13C2-8:2-FTS | 98 | | 50 - 200 |

Lab Sample ID: 380-73688-1 MS
Matrix: Drinking Water
Analysis Batch: 67268

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 67226

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| 11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 120 | 114 | | ng/L | | 94 | 70 - 130 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 120 | 111 | | ng/L | | 92 | 70 - 130 |

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: 380-73688-1 MS
Matrix: Drinking Water
Analysis Batch: 67268

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 67226

| <i>Isotope Dilution</i> | <i>%Recovery</i> | <i>MS MS Qualifier</i> | <i>Limits</i> |
|-------------------------|------------------|----------------------------|---------------|
| 13C8 PFOS | 101 | | 50 - 200 |
| 13C2-4:2-FTS | 109 | | 50 - 200 |
| 13C2-6:2-FTS | 106 | | 50 - 200 |
| 13C2-8:2-FTS | 118 | | 50 - 200 |

Lab Sample ID: 380-73688-2 MS
Matrix: Drinking Water
Analysis Batch: 67268

Client Sample ID: AIEA GULCH WELLS PUMP 2
Prep Type: Total/NA
Prep Batch: 67226

| <i>Analyte</i> | <i>Sample Result</i> | <i>Sample Qualifier</i> | <i>Spike Added</i> | <i>MS Result</i> | <i>MS Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec Limits</i> |
|---|--------------------------|-----------------------------|------------------------|----------------------|-------------------------|-------------|----------|-------------|------------------------|
| 11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 120 | 121 | | ng/L | | 101 | 70 - 130 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 120 | 115 | | ng/L | | 95 | 70 - 130 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 120 | 120 | | ng/L | | 100 | 70 - 130 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 120 | 122 | | ng/L | | 102 | 70 - 130 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 120 | 116 | | ng/L | | 96 | 70 - 130 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 120 | 122 | | ng/L | | 102 | 70 - 130 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 120 | 129 | | ng/L | | 107 | 70 - 130 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 120 | 123 | | ng/L | | 102 | 70 - 130 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 120 | 126 | | ng/L | | 104 | 70 - 130 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 120 | 123 | | ng/L | | 102 | 70 - 130 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 120 | 124 | | ng/L | | 103 | 70 - 130 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 120 | 125 | | ng/L | | 104 | 70 - 130 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 120 | 123 | | ng/L | | 102 | 70 - 130 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 120 | 129 | | ng/L | | 107 | 70 - 130 |
| Perfluorobutanoic acid (PFBA) | <2.0 | | 120 | 116 | | ng/L | | 96 | 70 - 130 |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) | <2.0 | | 120 | 121 | | ng/L | | 101 | 70 - 130 |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) | <2.0 | | 120 | 123 | | ng/L | | 102 | 70 - 130 |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) | <2.0 | | 120 | 123 | | ng/L | | 103 | 70 - 130 |
| Nonfluoro-3,6-dioxaheptanoic acid (NFDHA) | <2.0 | | 120 | 123 | | ng/L | | 102 | 70 - 130 |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA) | <2.0 | | 120 | 120 | | ng/L | | 100 | 70 - 130 |
| Perfluoro-3-methoxypropanoic acid (PFMPA) | <2.0 | | 120 | 115 | | ng/L | | 95 | 70 - 130 |
| Perfluoro-4-methoxybutanoic acid (PFMBA) | <2.0 | | 120 | 124 | | ng/L | | 103 | 70 - 130 |
| Perfluoropentanoic acid (PFPeA) | <2.0 | | 120 | 126 | | ng/L | | 104 | 70 - 130 |
| Perfluoroheptanesulfonic acid (PFHpS) | <2.0 | | 120 | 125 | | ng/L | | 104 | 70 - 130 |

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: 380-73688-2 MS
Matrix: Drinking Water
Analysis Batch: 67268

Client Sample ID: AIEA GULCH WELLS PUMP 2
Prep Type: Total/NA
Prep Batch: 67226

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------------------------|------------------|------------------|---------------|-----------|--------------|------|---|------|-------------|
| Perfluoropentanesulfonic acid (PFPeS) | <2.0 | | 120 | 123 | | ng/L | | 103 | 70 - 130 |
| MS MS | | | | | | | | | |
| Isotope Dilution | %Recovery | Qualifier | Limits | | | | | | |
| 13C3 HFPO-DA | 99 | | 50 - 200 | | | | | | |
| 13C6 PFDA | 100 | | 50 - 200 | | | | | | |
| 13C5 PFHxA | 94 | | 50 - 200 | | | | | | |
| 13C4 PFHpA | 93 | | 50 - 200 | | | | | | |
| 13C8 PFOA | 97 | | 50 - 200 | | | | | | |
| 13C9 PFNA | 93 | | 50 - 200 | | | | | | |
| 13C7 PFUnA | 94 | | 50 - 200 | | | | | | |
| 13C2 PFDoA | 89 | | 50 - 200 | | | | | | |
| 13C4 PFBA | 95 | | 50 - 200 | | | | | | |
| 13C5 PFPeA | 90 | | 50 - 200 | | | | | | |
| 13C3 PFBS | 102 | | 50 - 200 | | | | | | |
| 13C3 PFHxS | 101 | | 50 - 200 | | | | | | |
| 13C8 PFOS | 95 | | 50 - 200 | | | | | | |
| 13C2-4:2-FTS | 109 | | 50 - 200 | | | | | | |
| 13C2-6:2-FTS | 100 | | 50 - 200 | | | | | | |
| 13C2-8:2-FTS | 105 | | 50 - 200 | | | | | | |

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Lab Sample ID: MBL 380-66857/15-A
Matrix: Water
Analysis Batch: 66969

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 66857

| Analyte | MBL Result | MBL Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|------------|---------------|-----|------|---|----------------|----------------|---------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <1.0 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluorooctanesulfonic acid (PFOS) | <0.43 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluoroundecanoic acid (PFUnA) | <0.42 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA) | <0.58 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA) | <0.42 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluorohexanoic acid (PFHxA) | <0.46 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluorododecanoic acid (PFDoA) | <0.54 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluorooctanoic acid (PFOA) | <0.38 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluorodecanoic acid (PFDA) | <0.31 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | <0.32 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluorobutanesulfonic acid (PFBS) | <0.37 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluoroheptanoic acid (PFHpA) | <0.39 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluorononanoic acid (PFNA) | <0.40 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluorotetradecanoic acid (PFTA) | <0.54 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| Perfluorotridecanoic acid (PFTrDA) | <0.36 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <0.30 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| 11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <0.30 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |

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QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: MBL 380-66857/15-A
Matrix: Water
Analysis Batch: 66969

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 66857

| Analyte | MBL Result | MBL Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---------------|------------------|-----|------|---|----------------|----------------|---------|
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <0.60 | | 2.0 | ng/L | | 12/07/23 09:01 | 12/08/23 10:01 | 1 |

| Surrogate | MBL %Recovery | MBL Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------|------------------|------------------|----------|----------------|----------------|---------|
| d5-NEtFOSAA | 105 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| 13C2 PFHxA | 106 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| 13C2 PFDA | 106 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 10:01 | 1 |
| 13C3-GenX | 110 | | 70 - 130 | 12/07/23 09:01 | 12/08/23 10:01 | 1 |

Lab Sample ID: LCS 380-66857/17-A
Matrix: Water
Analysis Batch: 66969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 66857

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--|----------------|---------------|------------------|------|---|------|----------------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | 50.2 | 49.2 | | ng/L | | 98 | 70 - 130 |
| Perfluorooctanesulfonic acid (PFOS) | 50.2 | 42.1 | | ng/L | | 84 | 70 - 130 |
| Perfluoroundecanoic acid (PFUnA) | 50.2 | 42.0 | | ng/L | | 84 | 70 - 130 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 50.2 | 46.6 | | ng/L | | 93 | 70 - 130 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 50.2 | 45.3 | | ng/L | | 90 | 70 - 130 |
| Perfluorohexanoic acid (PFHxA) | 50.2 | 44.5 | | ng/L | | 89 | 70 - 130 |
| Perfluorododecanoic acid (PFDoA) | 50.2 | 42.6 | | ng/L | | 85 | 70 - 130 |
| Perfluorooctanoic acid (PFOA) | 50.2 | 42.9 | | ng/L | | 86 | 70 - 130 |
| Perfluorodecanoic acid (PFDA) | 50.2 | 43.5 | | ng/L | | 87 | 70 - 130 |
| Perfluorohexanesulfonic acid (PFHxS) | 50.2 | 44.4 | | ng/L | | 89 | 70 - 130 |
| Perfluorobutanesulfonic acid (PFBS) | 50.2 | 43.7 | | ng/L | | 87 | 70 - 130 |
| Perfluoroheptanoic acid (PFHpA) | 50.2 | 42.4 | | ng/L | | 84 | 70 - 130 |
| Perfluorononanoic acid (PFNA) | 50.2 | 45.1 | | ng/L | | 90 | 70 - 130 |
| Perfluorotetradecanoic acid (PFTA) | 50.2 | 42.9 | | ng/L | | 85 | 70 - 130 |
| Perfluorotridecanoic acid (PFTTrDA) | 50.2 | 45.9 | | ng/L | | 92 | 70 - 130 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | 50.2 | 45.9 | | ng/L | | 91 | 70 - 130 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | 50.2 | 44.3 | | ng/L | | 88 | 70 - 130 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | 50.2 | 45.0 | | ng/L | | 90 | 70 - 130 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-------------|------------------|------------------|----------|
| d5-NEtFOSAA | 102 | | 70 - 130 |
| 13C2 PFHxA | 116 | | 70 - 130 |
| 13C2 PFDA | 109 | | 70 - 130 |

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: LCS 380-66857/17-A
Matrix: Water
Analysis Batch: 66969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 66857

| Surrogate | LCS LCS | | Limits |
|-----------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 13C3-GenX | 122 | | 70 - 130 |

Lab Sample ID: LCSD 380-66857/18-A
Matrix: Water
Analysis Batch: 66969

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 66857

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec | | RPD | Limit |
|--|-------------|-------------|----------------|------|---|------|----------|-----|-----|-------|
| | | | | | | | Limits | RPD | | |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | 50.1 | 46.7 | | ng/L | | 93 | 70 - 130 | 5 | 30 | |
| Perfluorooctanesulfonic acid (PFOS) | 50.1 | 44.4 | | ng/L | | 89 | 70 - 130 | 5 | 30 | |
| Perfluoroundecanoic acid (PFUnA) | 50.1 | 42.2 | | ng/L | | 84 | 70 - 130 | 1 | 30 | |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 50.1 | 46.0 | | ng/L | | 92 | 70 - 130 | 1 | 30 | |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 50.1 | 46.8 | | ng/L | | 93 | 70 - 130 | 3 | 30 | |
| Perfluorohexanoic acid (PFHxA) | 50.1 | 43.9 | | ng/L | | 88 | 70 - 130 | 1 | 30 | |
| Perfluorododecanoic acid (PFDoA) | 50.1 | 43.0 | | ng/L | | 86 | 70 - 130 | 1 | 30 | |
| Perfluorooctanoic acid (PFOA) | 50.1 | 44.6 | | ng/L | | 89 | 70 - 130 | 4 | 30 | |
| Perfluorodecanoic acid (PFDA) | 50.1 | 44.1 | | ng/L | | 88 | 70 - 130 | 1 | 30 | |
| Perfluorohexanesulfonic acid (PFHxS) | 50.1 | 49.1 | | ng/L | | 98 | 70 - 130 | 10 | 30 | |
| Perfluorobutanesulfonic acid (PFBS) | 50.1 | 46.4 | | ng/L | | 93 | 70 - 130 | 6 | 30 | |
| Perfluoroheptanoic acid (PFHpA) | 50.1 | 43.7 | | ng/L | | 87 | 70 - 130 | 3 | 30 | |
| Perfluorononanoic acid (PFNA) | 50.1 | 45.1 | | ng/L | | 90 | 70 - 130 | 0 | 30 | |
| Perfluorotetradecanoic acid (PFTA) | 50.1 | 42.5 | | ng/L | | 85 | 70 - 130 | 1 | 30 | |
| Perfluorotridecanoic acid (PFTrDA) | 50.1 | 46.0 | | ng/L | | 92 | 70 - 130 | 0 | 30 | |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS) | 50.1 | 49.3 | | ng/L | | 98 | 70 - 130 | 7 | 30 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | 50.1 | 47.7 | | ng/L | | 95 | 70 - 130 | 7 | 30 | |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | 50.1 | 46.2 | | ng/L | | 92 | 70 - 130 | 3 | 30 | |

| Surrogate | LCSD LCSD | | Limits |
|-------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| d5-NEtFOSAA | 101 | | 70 - 130 |
| 13C2 PFHxA | 114 | | 70 - 130 |
| 13C2 PFDA | 103 | | 70 - 130 |
| 13C3-GenX | 108 | | 70 - 130 |

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: MRL 380-66857/16-A
Matrix: Water
Analysis Batch: 66969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 66857

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|--|----------------|---------------|------------------|------|---|------|----------------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | 2.00 | 1.78 | J | ng/L | | 89 | 50 - 150 |
| Perfluorooctanesulfonic acid (PFOS) | 1.85 | 1.66 | J | ng/L | | 90 | 50 - 150 |
| Perfluoroundecanoic acid (PFUnA) | 2.00 | 1.56 | J | ng/L | | 78 | 50 - 150 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 2.00 | 1.67 | J | ng/L | | 84 | 50 - 150 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | 2.00 | 1.68 | J | ng/L | | 84 | 50 - 150 |
| Perfluorohexanoic acid (PFHxA) | 2.00 | 1.69 | J | ng/L | | 84 | 50 - 150 |
| Perfluorododecanoic acid (PFDoA) | 2.00 | 1.68 | J | ng/L | | 84 | 50 - 150 |
| Perfluorooctanoic acid (PFOA) | 2.00 | 1.76 | J | ng/L | | 88 | 50 - 150 |
| Perfluorodecanoic acid (PFDA) | 2.00 | 1.68 | J | ng/L | | 84 | 50 - 150 |
| Perfluorohexanesulfonic acid (PFHxS) | 1.83 | 1.69 | J | ng/L | | 93 | 50 - 150 |
| Perfluorobutanesulfonic acid (PFBS) | 1.77 | 1.52 | J | ng/L | | 86 | 50 - 150 |
| Perfluoroheptanoic acid (PFHpA) | 2.00 | 1.65 | J | ng/L | | 83 | 50 - 150 |
| Perfluorononanoic acid (PFNA) | 2.00 | 1.66 | J | ng/L | | 83 | 50 - 150 |
| Perfluorotetradecanoic acid (PFTA) | 2.00 | 1.57 | J | ng/L | | 78 | 50 - 150 |
| Perfluorotridecanoic acid (PFTTrDA) | 2.00 | 1.61 | J | ng/L | | 80 | 50 - 150 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | 1.87 | 1.63 | J | ng/L | | 87 | 50 - 150 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | 1.89 | 1.60 | J | ng/L | | 85 | 50 - 150 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | 1.89 | 1.58 | J | ng/L | | 84 | 50 - 150 |

| Surrogate | MRL %Recovery | MRL Qualifier | Limits |
|-------------|------------------|------------------|----------|
| d5-NEtFOSAA | 102 | | 70 - 130 |
| 13C2 PFHxA | 107 | | 70 - 130 |
| 13C2 PFDA | 106 | | 70 - 130 |
| 13C3-GenX | 107 | | 70 - 130 |

Lab Sample ID: 380-73688-1 LMS
Matrix: Drinking Water
Analysis Batch: 66969

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 66857

| Analyte | Sample Result | Sample Qualifier | Spike Added | LMS Result | LMS Qualifier | Unit | D | %Rec | %Rec Limits |
|--|------------------|---------------------|----------------|---------------|------------------|------|---|------|----------------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.01 | 1.86 | J | ng/L | | 92 | 50 - 150 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 1.86 | 3.12 | | ng/L | | 98 | 50 - 150 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.01 | 1.79 | J | ng/L | | 89 | 50 - 150 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | <2.0 | | 2.01 | 1.84 | J | ng/L | | 92 | 50 - 150 |

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QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: 380-73688-1 LMS
Matrix: Drinking Water
Analysis Batch: 66969

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 66857

| Analyte | Sample Result | Sample Qualifier | Spike Added | LMS Result | LMS Qualifier | Unit | D | %Rec | %Rec Limits |
|--|------------------|------------------|---------------|------------|---------------|------|---|------|-------------|
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | <2.0 | | 2.01 | 1.76 | J | ng/L | | 88 | 50 - 150 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.01 | 2.66 | | ng/L | | 91 | 50 - 150 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.01 | 1.88 | J | ng/L | | 93 | 50 - 150 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.01 | 2.53 | | ng/L | | 93 | 50 - 150 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.01 | 2.00 | | ng/L | | 99 | 50 - 150 |
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 1.84 | 2.70 | | ng/L | | 89 | 50 - 150 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 1.78 | 2.20 | | ng/L | | 98 | 50 - 150 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.01 | 2.35 | | ng/L | | 93 | 50 - 150 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.01 | 2.00 | | ng/L | | 100 | 50 - 150 |
| Perfluorotetradecanoic acid (PFTA) | <2.0 | | 2.01 | 1.79 | J | ng/L | | 89 | 50 - 150 |
| Perfluorotridecanoic acid (PFTrDA) | <2.0 | | 2.01 | 1.81 | J | ng/L | | 90 | 50 - 150 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 1.88 | 1.84 | J | ng/L | | 98 | 50 - 150 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 1.90 | 1.79 | J | ng/L | | 94 | 50 - 150 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 1.90 | 1.78 | J | ng/L | | 94 | 50 - 150 |
| | | LMS | LMS | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | |
| d5-NEtFOSAA | 105 | | 70 - 130 | | | | | | |
| 13C2 PFHxA | 106 | | 70 - 130 | | | | | | |
| 13C2 PFDA | 112 | | 70 - 130 | | | | | | |
| 13C3-GenX | 104 | | 70 - 130 | | | | | | |

Lab Sample ID: 380-73688-1 LMSD
Matrix: Drinking Water
Analysis Batch: 66969

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 66857

| Analyte | Sample Result | Sample Qualifier | Spike Added | LMSD Result | LMSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|--|---------------|------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-------|
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) | <2.0 | | 2.01 | 2.07 | | ng/L | | 103 | 50 - 150 | 11 | 50 |
| Perfluorooctanesulfonic acid (PFOS) | <2.0 | | 1.86 | 3.21 | | ng/L | | 103 | 50 - 150 | 3 | 50 |
| Perfluoroundecanoic acid (PFUnA) | <2.0 | | 2.01 | 1.86 | J | ng/L | | 92 | 50 - 150 | 3 | 50 |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | <2.0 | | 2.01 | 2.04 | | ng/L | | 101 | 50 - 150 | 10 | 50 |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) | <2.0 | | 2.01 | 1.95 | J | ng/L | | 97 | 50 - 150 | 10 | 50 |
| Perfluorohexanoic acid (PFHxA) | <2.0 | | 2.01 | 2.80 | | ng/L | | 98 | 50 - 150 | 5 | 50 |
| Perfluorododecanoic acid (PFDoA) | <2.0 | | 2.01 | 2.01 | | ng/L | | 100 | 50 - 150 | 7 | 50 |
| Perfluorooctanoic acid (PFOA) | <2.0 | | 2.01 | 2.61 | | ng/L | | 97 | 50 - 150 | 3 | 50 |
| Perfluorodecanoic acid (PFDA) | <2.0 | | 2.01 | 2.06 | | ng/L | | 103 | 50 - 150 | 3 | 50 |

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-73688-1
 SDG: 525.2, 533 and 537.1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: 380-73688-1 LMSD
Matrix: Drinking Water
Analysis Batch: 66969

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 66857

| Analyte | Sample Result | Sample Qualifier | Spike Added | LMSD Result | LMSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--|------------------|------------------|---------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Perfluorohexanesulfonic acid (PFHxS) | <2.0 | | 1.83 | 3.02 | | ng/L | | 106 | 50 - 150 | 11 | 50 |
| Perfluorobutanesulfonic acid (PFBS) | <2.0 | | 1.78 | 2.26 | | ng/L | | 101 | 50 - 150 | 2 | 50 |
| Perfluoroheptanoic acid (PFHpA) | <2.0 | | 2.01 | 2.37 | | ng/L | | 94 | 50 - 150 | 1 | 50 |
| Perfluorononanoic acid (PFNA) | <2.0 | | 2.01 | 2.13 | | ng/L | | 106 | 50 - 150 | 6 | 50 |
| Perfluorotetradecanoic acid (PFTA) | <2.0 | | 2.01 | 1.81 | J | ng/L | | 90 | 50 - 150 | 1 | 50 |
| Perfluorotridecanoic acid (PFTTrDA) | <2.0 | | 2.01 | 1.84 | J | ng/L | | 92 | 50 - 150 | 2 | 50 |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) | <2.0 | | 1.88 | 2.04 | | ng/L | | 108 | 50 - 150 | 10 | 50 |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | <2.0 | | 1.90 | 1.96 | J | ng/L | | 103 | 50 - 150 | 9 | 50 |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) | <2.0 | | 1.90 | 1.91 | J | ng/L | | 101 | 50 - 150 | 7 | 50 |
| | | LMSD | LMSD | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | | | |
| d5-NEtFOSAA | 104 | | 70 - 130 | | | | | | | | |
| 13C2 PFHxA | 109 | | 70 - 130 | | | | | | | | |
| 13C2 PFDA | 110 | | 70 - 130 | | | | | | | | |
| 13C3-GenX | 114 | | 70 - 130 | | | | | | | | |

QC Association Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

GC/MS Semi VOA

Prep Batch: 67053

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|-------------------------------|-----------|----------------|--------|------------|
| 380-73688-1 | MOANALUA WELLS | Total/NA | Drinking Water | 525.2 | |
| 380-73688-2 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 525.2 | |
| 380-73688-3 | AIEA WELLS PUMPS 1&2 (260) P2 | Total/NA | Drinking Water | 525.2 | |
| 380-73688-4 | HALAWA WELLS UNITS 1 & 2 P1 | Total/NA | Drinking Water | 525.2 | |
| MB 380-67053/21-A | Method Blank | Total/NA | Water | 525.2 | |
| LCS 380-67053/23-A | Lab Control Sample | Total/NA | Water | 525.2 | |
| LCSD 380-67053/24-A | Lab Control Sample Dup | Total/NA | Water | 525.2 | |
| MRL 380-67053/22-A | Lab Control Sample | Total/NA | Water | 525.2 | |
| 380-73688-1 MS | MOANALUA WELLS | Total/NA | Drinking Water | 525.2 | |
| 380-73688-2 DU | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 525.2 | |

Analysis Batch: 67126

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|-------------------------------|-----------|----------------|--------|------------|
| 380-73688-1 | MOANALUA WELLS | Total/NA | Drinking Water | 525.2 | 67053 |
| 380-73688-2 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 525.2 | 67053 |
| 380-73688-3 | AIEA WELLS PUMPS 1&2 (260) P2 | Total/NA | Drinking Water | 525.2 | 67053 |
| 380-73688-4 | HALAWA WELLS UNITS 1 & 2 P1 | Total/NA | Drinking Water | 525.2 | 67053 |
| MB 380-67053/21-A | Method Blank | Total/NA | Water | 525.2 | 67053 |
| LCS 380-67053/23-A | Lab Control Sample | Total/NA | Water | 525.2 | 67053 |
| MRL 380-67053/22-A | Lab Control Sample | Total/NA | Water | 525.2 | 67053 |
| 380-73688-1 MS | MOANALUA WELLS | Total/NA | Drinking Water | 525.2 | 67053 |
| 380-73688-2 DU | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 525.2 | 67053 |

Analysis Batch: 67250

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| LCSD 380-67053/24-A | Lab Control Sample Dup | Total/NA | Water | 525.2 | 67053 |

LCMS

Prep Batch: 66857

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------------|-----------|----------------|----------|------------|
| 380-73688-1 | MOANALUA WELLS | Total/NA | Drinking Water | 537.1 DW | |
| 380-73688-2 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 537.1 DW | |
| 380-73688-3 | AIEA WELLS PUMPS 1&2 (260) P2 | Total/NA | Drinking Water | 537.1 DW | |
| 380-73688-4 | HALAWA WELLS UNITS 1 & 2 P1 | Total/NA | Drinking Water | 537.1 DW | |
| 380-73688-9 | FB MOANALUA WELLS | Total/NA | Water | 537.1 DW | |
| 380-73688-10 | FB AIEA GULCH WELLS PUMP 2 | Total/NA | Water | 537.1 DW | |
| 380-73688-11 | FB AIEA WELLS PUMPS 1&2 (260) P2 | Total/NA | Water | 537.1 DW | |
| 380-73688-12 | FB HALAWA WELLS UNITS 1 & 2 P1 | Total/NA | Water | 537.1 DW | |
| MBL 380-66857/15-A | Method Blank | Total/NA | Water | 537.1 DW | |
| LCS 380-66857/17-A | Lab Control Sample | Total/NA | Water | 537.1 DW | |
| LCSD 380-66857/18-A | Lab Control Sample Dup | Total/NA | Water | 537.1 DW | |
| MRL 380-66857/16-A | Lab Control Sample | Total/NA | Water | 537.1 DW | |
| 380-73688-1 LMS | MOANALUA WELLS | Total/NA | Drinking Water | 537.1 DW | |
| 380-73688-1 LMSD | MOANALUA WELLS | Total/NA | Drinking Water | 537.1 DW | |

Analysis Batch: 66969

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|-------------------------------|-----------|----------------|--------|------------|
| 380-73688-1 | MOANALUA WELLS | Total/NA | Drinking Water | 537.1 | 66857 |
| 380-73688-2 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 537.1 | 66857 |
| 380-73688-3 | AIEA WELLS PUMPS 1&2 (260) P2 | Total/NA | Drinking Water | 537.1 | 66857 |

QC Association Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

LCMS (Continued)

Analysis Batch: 66969 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------------|-----------|----------------|--------|------------|
| 380-73688-4 | HALAWA WELLS UNITS 1 & 2 P1 | Total/NA | Drinking Water | 537.1 | 66857 |
| 380-73688-9 | FB MOANALUA WELLS | Total/NA | Water | 537.1 | 66857 |
| 380-73688-10 | FB AIEA GULCH WELLS PUMP 2 | Total/NA | Water | 537.1 | 66857 |
| 380-73688-11 | FB AIEA WELLS PUMPS 1&2 (260) P2 | Total/NA | Water | 537.1 | 66857 |
| 380-73688-12 | FB HALAWA WELLS UNITS 1 & 2 P1 | Total/NA | Water | 537.1 | 66857 |
| MBL 380-66857/15-A | Method Blank | Total/NA | Water | 537.1 | 66857 |
| LCS 380-66857/17-A | Lab Control Sample | Total/NA | Water | 537.1 | 66857 |
| LCSD 380-66857/18-A | Lab Control Sample Dup | Total/NA | Water | 537.1 | 66857 |
| MRL 380-66857/16-A | Lab Control Sample | Total/NA | Water | 537.1 | 66857 |
| 380-73688-1 LMS | MOANALUA WELLS | Total/NA | Drinking Water | 537.1 | 66857 |
| 380-73688-1 LMSD | MOANALUA WELLS | Total/NA | Drinking Water | 537.1 | 66857 |

Prep Batch: 67226

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------------|-----------|----------------|--------|------------|
| 380-73688-1 | MOANALUA WELLS | Total/NA | Drinking Water | 533 | |
| 380-73688-2 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 533 | |
| 380-73688-3 | AIEA WELLS PUMPS 1&2 (260) P2 | Total/NA | Drinking Water | 533 | |
| 380-73688-4 | HALAWA WELLS UNITS 1 & 2 P1 | Total/NA | Drinking Water | 533 | |
| 380-73688-9 | FB MOANALUA WELLS | Total/NA | Water | 533 | |
| 380-73688-10 | FB AIEA GULCH WELLS PUMP 2 | Total/NA | Water | 533 | |
| 380-73688-11 | FB AIEA WELLS PUMPS 1&2 (260) P2 | Total/NA | Water | 533 | |
| 380-73688-12 | FB HALAWA WELLS UNITS 1 & 2 P1 | Total/NA | Water | 533 | |
| MBL 380-67226/21-A | Method Blank | Total/NA | Water | 533 | |
| LCS 380-67226/23-A | Lab Control Sample | Total/NA | Water | 533 | |
| LCSD 380-67226/24-A | Lab Control Sample Dup | Total/NA | Water | 533 | |
| MRL 380-67226/22-A | Lab Control Sample | Total/NA | Water | 533 | |
| 380-73688-1 MS | MOANALUA WELLS | Total/NA | Drinking Water | 533 | |
| 380-73688-2 MS | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 533 | |

Analysis Batch: 67268

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|----------------------------------|-----------|----------------|--------|------------|
| 380-73688-1 | MOANALUA WELLS | Total/NA | Drinking Water | 533 | 67226 |
| 380-73688-2 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 533 | 67226 |
| 380-73688-3 | AIEA WELLS PUMPS 1&2 (260) P2 | Total/NA | Drinking Water | 533 | 67226 |
| 380-73688-4 | HALAWA WELLS UNITS 1 & 2 P1 | Total/NA | Drinking Water | 533 | 67226 |
| 380-73688-9 | FB MOANALUA WELLS | Total/NA | Water | 533 | 67226 |
| 380-73688-10 | FB AIEA GULCH WELLS PUMP 2 | Total/NA | Water | 533 | 67226 |
| 380-73688-11 | FB AIEA WELLS PUMPS 1&2 (260) P2 | Total/NA | Water | 533 | 67226 |
| 380-73688-12 | FB HALAWA WELLS UNITS 1 & 2 P1 | Total/NA | Water | 533 | 67226 |
| MBL 380-67226/21-A | Method Blank | Total/NA | Water | 533 | 67226 |
| LCS 380-67226/23-A | Lab Control Sample | Total/NA | Water | 533 | 67226 |
| LCSD 380-67226/24-A | Lab Control Sample Dup | Total/NA | Water | 533 | 67226 |
| MRL 380-67226/22-A | Lab Control Sample | Total/NA | Water | 533 | 67226 |
| 380-73688-1 MS | MOANALUA WELLS | Total/NA | Drinking Water | 533 | 67226 |
| 380-73688-2 MS | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 533 | 67226 |

Lab Chronicle

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-73688-1
 SDG: 525.2, 533 and 537.1

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-73688-1

Date Collected: 12/04/23 10:04

Matrix: Drinking Water

Date Received: 12/06/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Batch Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------------|--------|----------------------|
| Total/NA | Prep | 525.2 | | | 67053 | OTM3 | EA POM | 12/08/23 06:07 |
| Total/NA | Analysis | 525.2 | | 1 | 67126 | Q8LA | EA POM | 12/08/23 16:04 |
| Total/NA | Prep | 533 | | | 67226 | T2EP | EA POM | 12/09/23 13:30 |
| Total/NA | Analysis | 533 | | 1 | 67268 | UKDT | EA POM | 12/10/23 23:01 |
| Total/NA | Prep | 537.1 DW | | | 66857 | SL5Q | EA POM | 12/07/23 09:01 |
| Total/NA | Analysis | 537.1 | | 1 | 66969 | R6YA | EA POM | 12/08/23 10:41 |

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-73688-2

Date Collected: 12/04/23 10:53

Matrix: Drinking Water

Date Received: 12/06/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Batch Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------------|--------|----------------------|
| Total/NA | Prep | 525.2 | | | 67053 | OTM3 | EA POM | 12/08/23 06:07 |
| Total/NA | Analysis | 525.2 | | 1 | 67126 | Q8LA | EA POM | 12/08/23 16:24 |
| Total/NA | Prep | 533 | | | 67226 | T2EP | EA POM | 12/09/23 13:30 |
| Total/NA | Analysis | 533 | | 1 | 67268 | UKDT | EA POM | 12/11/23 00:26 |
| Total/NA | Prep | 537.1 DW | | | 66857 | SL5Q | EA POM | 12/07/23 09:01 |
| Total/NA | Analysis | 537.1 | | 1 | 66969 | R6YA | EA POM | 12/08/23 11:30 |

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-73688-3

Date Collected: 12/04/23 11:20

Matrix: Drinking Water

Date Received: 12/06/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Batch Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------------|--------|----------------------|
| Total/NA | Prep | 525.2 | | | 67053 | OTM3 | EA POM | 12/08/23 06:07 |
| Total/NA | Analysis | 525.2 | | 1 | 67126 | Q8LA | EA POM | 12/08/23 16:44 |
| Total/NA | Prep | 533 | | | 67226 | T2EP | EA POM | 12/09/23 13:30 |
| Total/NA | Analysis | 533 | | 1 | 67268 | UKDT | EA POM | 12/11/23 00:35 |
| Total/NA | Prep | 537.1 DW | | | 66857 | SL5Q | EA POM | 12/07/23 09:01 |
| Total/NA | Analysis | 537.1 | | 1 | 66969 | R6YA | EA POM | 12/08/23 11:39 |

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-73688-4

Date Collected: 12/04/23 10:29

Matrix: Drinking Water

Date Received: 12/06/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Batch Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------------|--------|----------------------|
| Total/NA | Prep | 525.2 | | | 67053 | OTM3 | EA POM | 12/08/23 06:07 |
| Total/NA | Analysis | 525.2 | | 1 | 67126 | Q8LA | EA POM | 12/08/23 17:03 |
| Total/NA | Prep | 533 | | | 67226 | T2EP | EA POM | 12/09/23 13:30 |
| Total/NA | Analysis | 533 | | 1 | 67268 | UKDT | EA POM | 12/11/23 00:45 |
| Total/NA | Prep | 537.1 DW | | | 66857 | SL5Q | EA POM | 12/07/23 09:01 |
| Total/NA | Analysis | 537.1 | | 1 | 66969 | R6YA | EA POM | 12/08/23 11:49 |

Lab Chronicle

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

Client Sample ID: FB MOANALUA WELLS

Lab Sample ID: 380-73688-9

Date Collected: 12/04/23 10:04

Matrix: Water

Date Received: 12/06/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA | Prep | 533 | | | 67226 | T2EP | EA POM | 12/09/23 13:30 |
| Total/NA | Analysis | 533 | | 1 | 67268 | UKDT | EA POM | 12/11/23 01:05 |
| Total/NA | Prep | 537.1 DW | | | 66857 | SL5Q | EA POM | 12/07/23 09:01 |
| Total/NA | Analysis | 537.1 | | 1 | 66969 | R6YA | EA POM | 12/08/23 11:59 |

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-73688-10

Date Collected: 12/04/23 10:53

Matrix: Water

Date Received: 12/06/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA | Prep | 533 | | | 67226 | T2EP | EA POM | 12/09/23 13:30 |
| Total/NA | Analysis | 533 | | 1 | 67268 | UKDT | EA POM | 12/11/23 01:16 |
| Total/NA | Prep | 537.1 DW | | | 66857 | SL5Q | EA POM | 12/07/23 09:01 |
| Total/NA | Analysis | 537.1 | | 1 | 66969 | R6YA | EA POM | 12/08/23 12:08 |

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-73688-11

Date Collected: 12/04/23 11:20

Matrix: Water

Date Received: 12/06/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA | Prep | 533 | | | 67226 | T2EP | EA POM | 12/09/23 13:30 |
| Total/NA | Analysis | 533 | | 1 | 67268 | UKDT | EA POM | 12/11/23 01:25 |
| Total/NA | Prep | 537.1 DW | | | 66857 | SL5Q | EA POM | 12/07/23 09:01 |
| Total/NA | Analysis | 537.1 | | 1 | 66969 | R6YA | EA POM | 12/08/23 12:18 |

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-73688-12

Date Collected: 12/04/23 10:29

Matrix: Water

Date Received: 12/06/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA | Prep | 533 | | | 67226 | T2EP | EA POM | 12/09/23 13:30 |
| Total/NA | Analysis | 533 | | 1 | 67268 | UKDT | EA POM | 12/11/23 01:35 |
| Total/NA | Prep | 537.1 DW | | | 66857 | SL5Q | EA POM | 12/07/23 09:01 |
| Total/NA | Analysis | 537.1 | | 1 | 66969 | R6YA | EA POM | 12/08/23 12:28 |

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Accreditation/Certification Summary

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-73688-1
 SDG: 525.2, 533 and 537.1

Laboratory: Eurofins Eaton Analytical Pomona

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Hawaii | State | CA00006 | 01-31-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|-----------------|-------------|----------------|----------------------------------|
| 525.2 | 525.2 | Drinking Water | 1-Methylnaphthalene |
| 525.2 | 525.2 | Drinking Water | 2,4'-DDD |
| 525.2 | 525.2 | Drinking Water | 2,4'-DDE |
| 525.2 | 525.2 | Drinking Water | 2,4'-DDT |
| 525.2 | 525.2 | Drinking Water | 2,4-Dinitrotoluene |
| 525.2 | 525.2 | Drinking Water | 2,6-Dinitrotoluene |
| 525.2 | 525.2 | Drinking Water | 2-Methylnaphthalene |
| 525.2 | 525.2 | Drinking Water | 4,4'-DDD |
| 525.2 | 525.2 | Drinking Water | 4,4'-DDE |
| 525.2 | 525.2 | Drinking Water | 4,4'-DDT |
| 525.2 | 525.2 | Drinking Water | Acenaphthene |
| 525.2 | 525.2 | Drinking Water | Acenaphthylene |
| 525.2 | 525.2 | Drinking Water | Acetochlor |
| 525.2 | 525.2 | Drinking Water | alpha-BHC |
| 525.2 | 525.2 | Drinking Water | alpha-Chlordane |
| 525.2 | 525.2 | Drinking Water | Anthracene |
| 525.2 | 525.2 | Drinking Water | Benz(a)anthracene |
| 525.2 | 525.2 | Drinking Water | Benzo[b]fluoranthene |
| 525.2 | 525.2 | Drinking Water | Benzo[g,h,i]perylene |
| 525.2 | 525.2 | Drinking Water | Benzo[k]fluoranthene |
| 525.2 | 525.2 | Drinking Water | beta-BHC |
| 525.2 | 525.2 | Drinking Water | Bromacil |
| 525.2 | 525.2 | Drinking Water | Butylbenzylphthalate |
| 525.2 | 525.2 | Drinking Water | Chlorobenzilate |
| 525.2 | 525.2 | Drinking Water | Chloroneb |
| 525.2 | 525.2 | Drinking Water | Chlorothalonil (Draconil, Bravo) |
| 525.2 | 525.2 | Drinking Water | Chlorpyrifos |
| 525.2 | 525.2 | Drinking Water | Chrysene |
| 525.2 | 525.2 | Drinking Water | delta-BHC |
| 525.2 | 525.2 | Drinking Water | Dibenz(a,h)anthracene |
| 525.2 | 525.2 | Drinking Water | Diclorvos (DDVP) |
| 525.2 | 525.2 | Drinking Water | Diethylphthalate |
| 525.2 | 525.2 | Drinking Water | Dimethylphthalate |
| 525.2 | 525.2 | Drinking Water | Di-n-butyl phthalate |
| 525.2 | 525.2 | Drinking Water | Di-n-octyl phthalate |
| 525.2 | 525.2 | Drinking Water | Endosulfan I (Alpha) |
| 525.2 | 525.2 | Drinking Water | Endosulfan II (Beta) |
| 525.2 | 525.2 | Drinking Water | Endosulfan sulfate |
| 525.2 | 525.2 | Drinking Water | Endrin aldehyde |
| 525.2 | 525.2 | Drinking Water | EPTC |
| 525.2 | 525.2 | Drinking Water | Fluoranthene |
| 525.2 | 525.2 | Drinking Water | Fluorene |
| 525.2 | 525.2 | Drinking Water | gamma-Chlordane |
| 525.2 | 525.2 | Drinking Water | Indeno[1,2,3-cd]pyrene |
| 525.2 | 525.2 | Drinking Water | Isophorone |

Accreditation/Certification Summary

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-73688-1
 SDG: 525.2, 533 and 537.1

Laboratory: Eurofins Eaton Analytical Pomona (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
|-----------|---------|-----------------------|-----------------|

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|-----------------|-------------|----------------|--|
| 525.2 | 525.2 | Drinking Water | Malathion |
| 525.2 | 525.2 | Drinking Water | Molinate |
| 525.2 | 525.2 | Drinking Water | Naphthalene |
| 525.2 | 525.2 | Drinking Water | Parathion |
| 525.2 | 525.2 | Drinking Water | Pendimethalin (Penoxaline) |
| 525.2 | 525.2 | Drinking Water | Phenanthrene |
| 525.2 | 525.2 | Drinking Water | Pyrene |
| 525.2 | 525.2 | Drinking Water | Terbacil |
| 525.2 | 525.2 | Drinking Water | Terbutylazine |
| 525.2 | 525.2 | Drinking Water | Thiobencarb |
| 525.2 | 525.2 | Drinking Water | Total Permethrin (mixed isomers) |
| 525.2 | 525.2 | Drinking Water | trans-Nonachlor |
| 525.2 | 525.2 | Drinking Water | Trifluralin |
| 533 | 533 | Drinking Water | 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) |
| 533 | 533 | Drinking Water | 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) |
| 533 | 533 | Drinking Water | 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) |
| 533 | 533 | Drinking Water | 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) |
| 533 | 533 | Drinking Water | 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) |
| 533 | 533 | Drinking Water | 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) |
| 533 | 533 | Drinking Water | Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) |
| 533 | 533 | Drinking Water | Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) |
| 533 | 533 | Drinking Water | Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA) |
| 533 | 533 | Drinking Water | Perfluoro-3-methoxypropanoic acid (PFMPA) |
| 533 | 533 | Drinking Water | Perfluoro-4-methoxybutanoic acid (PFMBA) |
| 533 | 533 | Drinking Water | Perfluorobutanoic acid (PFBA) |
| 533 | 533 | Drinking Water | Perfluoroheptanesulfonic acid (PFHpS) |
| 533 | 533 | Drinking Water | Perfluoropentanesulfonic acid (PFPeS) |
| 533 | 533 | Drinking Water | Perfluoropentanoic acid (PFPeA) |
| 533 | 533 | Water | 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) |
| 533 | 533 | Water | 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) |
| 533 | 533 | Water | 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) |
| 533 | 533 | Water | 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) |
| 533 | 533 | Water | 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) |
| 533 | 533 | Water | 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) |

Accreditation/Certification Summary

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-73688-1
 SDG: 525.2, 533 and 537.1

Laboratory: Eurofins Eaton Analytical Pomona (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
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The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|-----------------|-------------|----------------|--|
| 533 | 533 | Water | Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) |
| 533 | 533 | Water | Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) |
| 533 | 533 | Water | Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA) |
| 533 | 533 | Water | Perfluoro-3-methoxypropanoic acid (PFMPA) |
| 533 | 533 | Water | Perfluoro-4-methoxybutanoic acid (PFMBA) |
| 533 | 533 | Water | Perfluorobutanoic acid (PFBA) |
| 533 | 533 | Water | Perfluoroheptanesulfonic acid (PFHpS) |
| 533 | 533 | Water | Perfluoropentanesulfonic acid (PFPeS) |
| 533 | 533 | Water | Perfluoropentanoic acid (PFPeA) |
| 537.1 | 537.1 DW | Drinking Water | 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) |
| 537.1 | 537.1 DW | Drinking Water | 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) |
| 537.1 | 537.1 DW | Drinking Water | 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) |
| 537.1 | 537.1 DW | Drinking Water | Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) |
| 537.1 | 537.1 DW | Water | 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) |
| 537.1 | 537.1 DW | Water | 4,8-Dioxa-3H-perfluorononanoic acid (ADONA) |
| 537.1 | 537.1 DW | Water | 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS) |
| 537.1 | 537.1 DW | Water | Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) |

Method Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

| Method | Method Description | Protocol | Laboratory |
|----------|---|----------|------------|
| 525.2 | Semivolatile Organic Compounds (GC/MS) | EPA | EA POM |
| 533 | Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water | EPA | EA POM |
| 537.1 | Perfluorinated Alkyl Acids (LC/MS) | EPA | EA POM |
| 525.2 | Extraction of Semivolatile Compounds | EPA | EA POM |
| 533 | Extraction of Perfluorinated and Polyfluorinated Alkyl Acids | EPA | EA POM |
| 537.1 DW | Extraction of Perfluorinated Alkyl Acids | EPA | EA POM |

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100



Sample Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-73688-1
SDG: 525.2, 533 and 537.1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | PWSID Number |
|---------------|----------------------------------|----------------|----------------|----------------|--------------|
| 380-73688-1 | MOANALUA WELLS | Drinking Water | 12/04/23 10:04 | 12/06/23 10:30 | HI0000331 |
| 380-73688-2 | AIEA GULCH WELLS PUMP 2 | Drinking Water | 12/04/23 10:53 | 12/06/23 10:30 | HI0000331 |
| 380-73688-3 | AIEA WELLS PUMPS 1&2 (260) P2 | Drinking Water | 12/04/23 11:20 | 12/06/23 10:30 | HI0000331 |
| 380-73688-4 | HALAWA WELLS UNITS 1 & 2 P1 | Drinking Water | 12/04/23 10:29 | 12/06/23 10:30 | HI0000331 |
| 380-73688-9 | FB MOANALUA WELLS | Water | 12/04/23 10:04 | 12/06/23 10:30 | HI0000331 |
| 380-73688-10 | FB AIEA GULCH WELLS PUMP 2 | Water | 12/04/23 10:53 | 12/06/23 10:30 | HI0000331 |
| 380-73688-11 | FB AIEA WELLS PUMPS 1&2 (260) P2 | Water | 12/04/23 11:20 | 12/06/23 10:30 | HI0000331 |
| 380-73688-12 | FB HALAWA WELLS UNITS 1 & 2 P1 | Water | 12/04/23 10:29 | 12/06/23 10:30 | HI0000331 |

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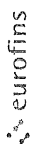
Monrovia, CA (Suite 100)
 750 Royal Oaks Drive Suite 100
 Monrovia CA 91016
 Phone (626) 386-1100



Chain of Custody Record

| | | | | | |
|--|--|---|--|---|--|
| Client Information Client Contact: Dr Ron Fenstermacher Company: City & County of Honolulu Address: 630 South Beretania Street, Chemistry Lab City: Honolulu State/Zip: HI, 96843 Phone: 808-748-5091 (tel) Email: rfenstermacher@hbws.org Project Name: RED-HILL/HBWS sites Event Desc RUSH Weekly Red Hill Site: | | Lab PM: Arada Rachelle E-Mail: Rachelle.Arada@et.euronisus.com State of Origin: | | Carrier Tracking No(s): 380-27941-2757 2 Page: Page 1 of 2 Job #: | |
| Due Date Requested: TAT Requested (days): Compliance Project Δ No: PO #: C20525101 exp 05312023 WO #: | | PWSID: | | Analysis Requested: | |
| Sample Identification: | | Sample Date: | | Sample Time: | |
| MOANALUA WELLS AIEA GULCH WELLS PUMP2 AIEA WELLS PUMPS 1&2 (260) P2 HALAWA WELLS UNITS 1&2 P1 | | 4-Dec-2023 4-Dec-2023 4-Dec-2023 4-Dec-2023 | | 1004 G 1083 G 1120 G 1029 G | |
| Matrix (Viewwater, Suspend, Onwater, BPT-Tissue, A-Alt) | | Preservation Code | | Field Filtered Sample (Yes or No) | |
| Water Water Water Water | | G G G G | | X X X X | |
| Perform MS/MSD (Yes or No) | | SUBCONTRACT - 625 PAH Physis LL (EAL) + TICS | | SUBCONTRACT - 8015 Gas (Purgable) LL (EAL) | |
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| 2 | | 2 | | 2 | |
| SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil | | SUBCONTRACT - (MOD) 625plus PLUS TICS | | SUBCONTRACT - 8015 Gas (Purgable) LL (EAL) | |
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| R | | RA | | RA | |
| 2 | | 2 | | 2 | |
| SUBCONTRACT - 8015 Gas (Purgable) LL (EAL) | | SUBCONTRACT - 8015 Gas (Purgable) LL (EAL) | | SUBCONTRACT - 8015 Gas (Purgable) LL (EAL) | |
| R | | RA | | RA | |
| 2 | | 2 | | 2 | |
| SUBCONTRACT - 80 | | | | | |

Monrovia, CA (Suite 100)
 750 Royal Oaks Drive Suite 100
 Monrovia, CA 91016
 Phone (626) 386-1100



Chain of Custody Record

| | | | | | | | |
|--|--|---|--|--|--|---|--|
| Client Information | | Lab PM Arada Rachelle | | Carrier Tracking No(s) | | COC No 380-27941-2757 2 | |
| Client Contact: Dr Ron Fenstermacher | | E-Mail Rachelle Arada@et.euronisus.com | | State of Origin | | Page Page 2 of 2 | |
| Company City & County of Honolulu | | PWSID | | Analysis Requested | | Job # | |
| Address 630 South Beretania Street, Chemistry Lab | | Due Date Requested | | 537 1_DW_PREC - 537 1 Full List | | Preservation Codes | |
| City Honolulu | | TAT Requested (days) | | 525 2_PREC - (MOD) 525plus PLUS TICs | | A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - Trizma Z - other (specify) | |
| State Zip HI, 96843 | | Compliance Project Δ No | | SUBCONTRACT - 8015 Gas (Purgable) LL (EAL) | | Other | |
| Phone 808-748-5091 (tel) | | PO # C20525101 exp 05312023 | | SUBCONTRACT - 8915 Diesel LL (EAL) and Motor Oil | | Total Number of containers | |
| Email rfenstermacher@hbws.org | | WO # | | SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs | | Special Instructions/Note: | |
| Project Name RED-HILL/HBWS sites Event Desc. RUSH Weekly Red Hill | | Project # 38001111 | | SUBCONTRACT - 8015 Gas (Purgable) LL (EAL) | | chlorinated | |
| Site | | SSOW# | | SUBCONTRACT - 8915 Diesel LL (EAL) and Motor Oil | | chlorinated | |
| Sample Identification | | Sample Date | | Perform MS/MSD (Yes or No) | | Field Filtered Sample (Yes or No) | |
| MOANALUA WELLS | | 4-Dec-2023 | | R | | X | |
| AIEA GULCH WELLS PUMP2 | | 4-Dec-2023 | | R | | X | |
| AIEA WELLS PUMPS 1&2 (260) P2 | | 4-Dec-2023 | | R | | X | |
| HALAWA WELLS UNITS 1&2 P1 | | 4-Dec-2023 | | R | | X | |
| FB MOANALUA WELLS | | 4-Dec-2023 | | R | | X | |
| FB AIEA GULCH WELLS PUMP2 | | 4-Dec-2023 | | R | | X | |
| FB AIEA WELLS PUMPS 1&2 (260) | | 4-Dec-2023 | | R | | X | |
| FB HALAWA WELLS UNITS 1&2 | | 4-Dec-2023 | | R | | X | |
| Possible Hazard Identification | | Sample Time | | Matrix | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) | |
| <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological | | 1004 G | | Water | | <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months | |
| Deliverable Requested I, II, III, IV, Other (specify) | | 1063 G | | Water | | Special Instructions/QC Requirements | |
| Empty Kit Relinquished by | | 120 G | | Water | | ① 7743 6094 4925 ② 7743 6094 4936 | |
| Relinquished by BAILEY | | 1029 G | | Water | | Method of Shipment: FED Ex ③ 7743 6094 4947 | |
| Relinquished by | | 4-Dec-2023 | | Water | | Date/Time 12/06/2023 10:30 Company EEAR | |
| Relinquished by | | 4-Dec-2023 | | Water | | Date/Time 12/06/2023 10:30 Company EEAR | |
| Custody Seals Intact Δ Yes Δ No | | 4-Dec-2023 | | Water | | Date/Time 12/06/2023 10:30 Company EEAR | |
| Custody Seal No | | 4-Dec-2023 | | Water | | Cooler Temperature(s) °C and Other Remarks (FSTA) ① 2.0 °C - 0.1 - 1.9 °C ② 2.2 °C ③ 0.9 °C - 0.1 - 0.8 °C GEL-FROZEN | |



Eurofins Eaton Analytical Pomona

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


Chain of Custody Record



eurofins

Envi

Loc: 380
73688

| | | | | | | | | | |
|--|--|--------------------------------|-----------------------------|--|--|-------------------------------------|--|---|--|
| Client Information (Sub Contract Lab) | | Sampler: | | Lab PM: Arada, Rachelle | | Carrier Tracking No(s): | | COC No: 380-93737.1 | |
| Client Contact: Shipping/Receiving | | Phone: | | E-Mail: Rachelle.Arada@et.eurofinsus.com | | State of Origin: Hawaii | | Page: Page 1 of 1 | |
| Company: Eurofins Environment Testing Southwest | | | | Accreditations Required (See note): State - Hawaii | | | | Job #: 380-73688-1 | |
| Address: 2841 Dow Avenue, Suite 100, Tustin, CA, 92780 | | Due Date Requested: 12/28/2023 | | Analysis Requested  380-73688 Chain of Custody | | | | Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Y - Trizma Z - other (specify) | |
| City: Tustin | | TAT Requested (days): | | | | | | | |
| State, Zip: CA, 92780 | | PO #: | | Field Filtered Sample (Yes or No) | | Perform MS/MSD (Yes or No) | | Total Number of containers | |
| Phone: 714-895-5494(Tel) | | WO #: | | 8015B_GRO_LL/5030C (MOD) GRO | | 8015B_DAI Ethanol | | | |
| Email: | | | | 8015B_DRO_LL_CS/3510C_LL_HNL Ranges: C10-C24/C24-C36/CB-C18 | | 8015B_GRO_LL/5030C GRO | | | |
| Project Name: RED-HILL | | Project #: 38001111 | | | | | | | |
| Site: Honolulu BWS Sites | | SSOW#: | | | | | | | |
| Sample Identification - Client ID (Lab ID) | | Sample Date | | Sample Time | | Sample Type (C=Comp, G=grab) | | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | |
| | | | | | | Preservation Code: | | | |
| MOANALUA WELLS (380-73688-1) | | 12/4/23 | | 10:04 Hawaiian | | Water | | 5 | |
| AIEA GULCH WELLS PUMP 2 (380-73688-2) | | 12/4/23 | | 10:53 Hawaiian | | Water | | 4 | |
| AIEA WELLS PUMPS 1&2 (260) P2 (380-73688-3) | | 12/4/23 | | 11:20 Hawaiian | | Water | | 5 | |
| HALAWA WELLS UNITS 1 & 2 P1 (380-73688-4) | | 12/4/23 | | 10:29 Hawaiian | | Water | | 6 | |
| TB MOANALUA WELLS (380-73688-5) | | 12/4/23 | | 10:04 Hawaiian | | Water | | 2 | |
| TB AIEA GULCH WELLS PUMP 2 (380-73688-6) | | 12/4/23 | | 10:53 Hawaiian | | Water | | 2 | |
| TB AIEA WELLS PUMPS 1&2 (260) P2 (380-73688-7) | | 12/4/23 | | 11:20 Hawaiian | | Water | | 2 | |
| TB HALAWA WELLS UNITS 1 & 2 P1 (380-73688-8) | | 12/4/23 | | 10:29 Hawaiian | | Water | | 2 | |
| Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC. | | | | | | | | | |
| Possible Hazard Identification | | | | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) | | | | |
| Unconfirmed | | | | | <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months | | | | |
| Deliverable Requested: I, II, III, IV, Other (specify) | | | Primary Deliverable Rank: 2 | | Special Instructions/QC Requirements: | | | | |
| Empty Kit Relinquished by: | | Date: | | Time: | | Method of Shipment: | | | |
| Relinquished by: | | Date/Time: 12/7/23 0652 | | Company: Eeon | | Received by: | | Date/Time: 12-7-23 | |
| Relinquished by: | | Date/Time: | | Company: | | Received by: | | Date/Time: | |
| Relinquished by: | | Date/Time: 12-7-23 8:17 | | Company: | | Received by: | | Date/Time: 12/7/23 0817 | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | | Custody Seal No.: | | Cooler Temperature(s) °C and Other Remarks: 0.9/0.8 50/12 | | | | | |



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-73688-1
SDG Number: 525.2, 533 and 537.1

Login Number: 73688
List Number: 1
Creator: Elyas, Matthew

List Source: Eurofins Eaton Analytical Pomona

| Question | Answer | Comment |
|--|--------|----------------------------------|
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and 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. | False | Refer to NCM for affected items. |
| 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 | |
| Samples do not require splitting or compositing. | True | |
| Container provided by EEA | True | |

