

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
Weekly

JOB NUMBER

380-133139-1

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: 380-133139-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| *1 | LCS/LCSD RPD exceeds control limits. |
| F1 | MS and/or MSD recovery exceeds control limits. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

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. |

Glossary

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

Case Narrative

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

Job ID: 380-133139-1

Job ID: 380-133139-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-133139-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 1/31/2025 10:27 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.9°C.

GC/MS Semi VOA

Method 625.1_SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-529323 and analytical batch 570-532856 recovered outside control limits for the following analytes: Pyrene.

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

Gasoline Range Organics

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

Diesel Range Organics

Method 8015B_DRO_LL_CS: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-529875 and analytical batch 570-534604 recovered outside control limits for the following analytes: C10-C28.

Method 8015B_DRO_LL_CS: The following sample(s) was re-prepared outside of preparation holding time due to Method Reporting Limit (MRL) failed high in the first preparation batch. Data excluded due to this QC failure.

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: 380-133139-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-133139-1

No Detections.

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-133139-2

No Detections.

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

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: 380-133139-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-133139-1

Date Collected: 01/29/25 10:00

Matrix: Water

Date Received: 01/31/25 10:27

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| 1-Methylnaphthalene | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| 2,4'-DDD | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| 2,4'-DDE | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| 2,4'-DDT | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| 2,4-Dinitrotoluene | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| 2,6-Dinitrotoluene | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| 2-Methylnaphthalene | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| 4,4'-DDD | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| 4,4'-DDE | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| 4,4'-DDT | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Acenaphthene | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Acenaphthylene | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Acetochlor | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Alachlor | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| alpha-BHC | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| alpha-Chlordane | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Anthracene | <0.020 | | 0.020 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Atrazine | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Benz(a)anthracene | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Benzo[a]pyrene | <0.020 | | 0.020 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Benzo[b]fluoranthene | <0.020 | | 0.020 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Benzo[g,h,i]perylene | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Benzo[k]fluoranthene | <0.020 | | 0.020 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| beta-BHC | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.60 | | 0.60 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Bromacil | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Butachlor | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Butylbenzylphthalate | <0.50 | | 0.50 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Chlorobenzilate | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Chloroneb | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Chlorothalonil (Draconil, Bravo) | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Chlorpyrifos | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Chrysene | <0.020 | | 0.020 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| delta-BHC | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Di(2-ethylhexyl)adipate | <0.60 | | 0.60 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Dibenz(a,h)anthracene | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Diclorvos (DDVP) | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Dieldrin | <0.010 | | 0.010 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Diethylphthalate | <0.50 | | 0.50 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Dimethylphthalate | <0.50 | | 0.50 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Di-n-butyl phthalate | <1.0 | | 1.0 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Di-n-octyl phthalate | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Endosulfan I (Alpha) | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Endosulfan II (Beta) | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Endosulfan sulfate | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Endrin | <0.010 | | 0.010 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Endrin aldehyde | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| EPTC | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Fluoranthene | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |

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Client Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-133139-1

Date Collected: 01/29/25 10:00

Matrix: Water

Date Received: 01/31/25 10:27

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 | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| gamma-Chlordane | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Heptachlor | <0.010 | | 0.010 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Heptachlor epoxide (isomer B) | <0.010 | | 0.010 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Hexachlorobenzene | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Hexachlorocyclopentadiene | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Isophorone | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Lindane | <0.010 | | 0.010 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Malathion | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Methoxychlor | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Metolachlor | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Molinate | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Naphthalene | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Parathion | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Pendimethalin (Penoxaline) | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Phenanthrene | <0.040 | | 0.040 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Propachlor | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Pyrene | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Simazine | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Terbacil | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Terbutylazine | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Thiobencarb | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Total Permethrin (mixed isomers) | <0.20 | | 0.20 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| trans-Nonachlor | <0.050 | | 0.050 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Trifluralin | <0.10 | | 0.10 | ug/L | | 02/02/25 15:45 | 02/03/25 20:36 | 1 |

| Tentatively Identified Compound | Est. Result | Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|------|---|----|---------|----------------|----------------|---------|
| Tentatively Identified Compound | None | | ug/L | | | N/A | 02/02/25 15:45 | 02/03/25 20:36 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Nitro-m-xylene | 99 | | 70 - 130 | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Perylene-d12 | 95 | | 70 - 130 | 02/02/25 15:45 | 02/03/25 20:36 | 1 |
| Triphenylphosphate | 94 | | 70 - 130 | 02/02/25 15:45 | 02/03/25 20:36 | 1 |

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------|--------|-----------|------|------|---|----------------|----------------|---------|
| 1-Methylnaphthalene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| 2-Methylnaphthalene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Acenaphthene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Acenaphthylene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Anthracene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Benzo[a]anthracene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Benzo[a]pyrene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Benzo[b]fluoranthene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Benzo[g,h,i]perylene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Benzo[k]fluoranthene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Chrysene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Dibenz(a,h)anthracene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Fluoranthene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-133139-1

Date Collected: 01/29/25 10:00

Matrix: Water

Date Received: 01/31/25 10:27

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|--------|-----------|------|------|---|----------------|----------------|---------|
| Fluorene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Naphthalene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Phenanthrene | <0.19 | | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Pyrene | <0.19 | *1 | 0.19 | ug/L | | 02/03/25 13:00 | 02/12/25 10:28 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4,6-Tribromophenol (Surr) | 77 | | 28 - 127 | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| 2-Fluorobiphenyl (Surr) | 66 | | 31 - 120 | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| 2-Fluorophenol (Surr) | 45 | | 17 - 120 | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Nitrobenzene-d5 (Surr) | 69 | | 27 - 120 | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| Phenol-d6 (Surr) | 30 | | 10 - 120 | 02/03/25 13:00 | 02/12/25 10:28 | 1 |
| p-Terphenyl-d14 (Surr) | 80 | | 45 - 120 | 02/03/25 13:00 | 02/12/25 10:28 | 1 |

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

| Tentatively Identified Compound | Est. Result | Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|------|---|------|-----------|----------------|----------------|---------|
| 2-Pentenal, (E)- | 6.1 | T J N | ug/L | | 2.69 | 1576-87-0 | 02/03/25 13:00 | 02/12/25 15:54 | 1 |
| Hexane, 2,3-dimethyl- | 7.5 | T J N | ug/L | | 2.79 | 584-94-1 | 02/03/25 13:00 | 02/12/25 15:54 | 1 |
| Cyclohexane, 1,1-dimethyl- | 7.0 | T J N | ug/L | | 2.91 | 590-66-9 | 02/03/25 13:00 | 02/12/25 15:54 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4,6-Tribromophenol (Surr) | 71 | | 33 - 139 | 02/03/25 13:00 | 02/12/25 15:54 | 1 |
| 2-Fluorobiphenyl (Surr) | 69 | | 33 - 126 | 02/03/25 13:00 | 02/12/25 15:54 | 1 |
| 2-Fluorophenol (Surr) | 48 | | 12 - 120 | 02/03/25 13:00 | 02/12/25 15:54 | 1 |
| Nitrobenzene-d5 (Surr) | 68 | | 36 - 120 | 02/03/25 13:00 | 02/12/25 15:54 | 1 |
| Phenol-d6 (Surr) | 34 | | 10 - 120 | 02/03/25 13:00 | 02/12/25 15:54 | 1 |
| p-Terphenyl-d14 (Surr) | 86 | | 47 - 131 | 02/03/25 13:00 | 02/12/25 15:54 | 1 |

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|----|------|---|----------|----------------|---------|
| GRO (C6-C10) | <10 | | 10 | ug/L | | | 02/07/25 16:54 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 87 | | 38 - 134 | | 02/07/25 16:54 | 1 |

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-133139-2

Date Collected: 01/29/25 10:00

Matrix: Water

Date Received: 01/31/25 10:27

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|----|------|---|----------|----------------|---------|
| GRO (C6-C10) | <10 | | 10 | ug/L | | | 02/07/25 17:19 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 87 | | 38 - 134 | | 02/07/25 17:19 | 1 |

Action Limit Summary

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

Job ID: 380-133139-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-133139-1

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 | <0.050 | | 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 | <0.60 | | 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 | <0.010 | | ug/L | 2 | 0.010 | 525.2 | Total/NA |
| Heptachlor | <0.010 | | ug/L | 0.4 | 0.010 | 525.2 | Total/NA |
| Heptachlor epoxide (isomer B) | <0.010 | | ug/L | 0.2 | 0.010 | 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 | <0.010 | | ug/L | 0.2 | 0.010 | 525.2 | Total/NA |
| Methoxychlor | <0.050 | | ug/L | 40 | 0.050 | 525.2 | Total/NA |
| Simazine | <0.050 | | ug/L | 4 | 0.050 | 525.2 | Total/NA |
| Benzo[a]pyrene | <0.19 | | ug/L | 0.2 | 0.19 | 625.1 SIM | Total/NA |

Surrogate Summary

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

Job ID: 380-133139-1
SDG: Weekly

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) |
| 380-133139-1 | HALAWA SHAFT VIEWING POC | 99 | 95 | 94 |
| 380-133154-R-1-A MS | Matrix Spike | 98 | 100 | 102 |
| 380-133154-S-2-A DU | Duplicate | 99 | 98 | 102 |
| LCS 380-132045/23-A | Lab Control Sample | 97 | 98 | 105 |
| MB 380-132045/21-A | Method Blank | 99 | 98 | 98 |
| MRL 380-132045/22-A | Lab Control Sample | 97 | 95 | 102 |

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | | | |
|-------------------|--------------------------|--|-----------------|-----------------|-----------------|------------------|--------------------|
| | | TBP (33-139) | FBP (33-126) | 2FP (12-120) | NBZ (36-120) | PHL6 (10-120) | TPHd14 (47-131) |
| 380-133139-1 | HALAWA SHAFT VIEWING POC | 71 | 69 | 48 | 68 | 34 | 86 |
| MB 570-529323/1-A | Method Blank | 71 | 60 | 42 | 62 | 28 | 94 |

Surrogate Legend
 TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL6 = Phenol-d6 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | | | |
|----------------------|--------------------------|--|-----------------|-----------------|-----------------|------------------|--------------------|
| | | TBP (28-127) | FBP (31-120) | 2FP (17-120) | NBZ (27-120) | PHL6 (10-120) | TPHd14 (45-120) |
| 380-133139-1 | HALAWA SHAFT VIEWING POC | 77 | 66 | 45 | 69 | 30 | 80 |
| 380-133140-A-1-B MS | Matrix Spike | 86 | 83 | 61 | 71 | 45 | 99 |
| 380-133140-A-1-C MSD | Matrix Spike Duplicate | 79 | 76 | 62 | 68 | 43 | 100 |
| LCS 570-529323/2-A | Lab Control Sample | 76 | 72 | 56 | 61 | 42 | 81 |
| LCSD 570-529323/3-A | Lab Control Sample Dup | 87 | 80 | 67 | 71 | 48 | 105 |
| MB 570-529323/1-A | Method Blank | 65 | 61 | 39 | 56 | 26 | 89 |

Surrogate Legend
 TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL6 = Phenol-d6 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

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

Job ID: 380-133139-1
SDG: Weekly

Method: 8015B GRO LL - Gasoline Range Organics - (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | BFB1 (38-134) |
|--------------------|----------------------------------|------------------|
| 380-133139-1 | HALAWA SHAFT VIEWING POC | 87 |
| 380-133139-2 | TB: HALAWA SHAFT VIEWING POOL | 87 |
| 380-133140-C-1 MS | Matrix Spike | 94 |
| 380-133140-C-1 MSD | Matrix Spike Duplicate | 94 |
| LCS 570-531277/3 | Lab Control Sample | 93 |
| LCSD 570 531277/4 | Lab Control Sample Dup | 97 |
| MB 570-531277/5 | Method Blank | 90 |

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

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

Lab Sample ID: MB 380-132045/21-A
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | MB | MB | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|---------|-----------|--------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | |
| 1-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| 2,4'-DDD | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| 2,4'-DDE | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| 2,4'-DDT | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| 2,4-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| 2,6-Dinitrotoluene | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| 2-Methylnaphthalene | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| 4,4'-DDD | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| 4,4'-DDE | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| 4,4'-DDT | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Acenaphthene | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Acenaphthylene | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Acetochlor | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Alachlor | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| alpha-BHC | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| alpha-Chlordane | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Anthracene | <0.020 | | 0.020 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Atrazine | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Benz(a)anthracene | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Benzo[a]pyrene | <0.020 | | 0.020 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Benzo[b]fluoranthene | <0.020 | | 0.020 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Benzo[g,h,i]perylene | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Benzo[k]fluoranthene | <0.020 | | 0.020 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| beta-BHC | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Bis(2-ethylhexyl) phthalate | <0.59 | | 0.59 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Bromacil | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Butachlor | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Butylbenzylphthalate | <0.49 | | 0.49 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Chlorobenzilate | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Chloroneb | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Chlorothalonil (Draconil, Bravo) | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Chlorpyrifos | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Chrysene | <0.020 | | 0.020 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| delta-BHC | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Di(2-ethylhexyl)adipate | <0.59 | | 0.59 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Dibenz(a,h)anthracene | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Diclorvos (DDVP) | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Dieldrin | <0.0099 | | 0.0099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Diethylphthalate | <0.49 | | 0.49 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Dimethylphthalate | <0.49 | | 0.49 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Di-n-butyl phthalate | <0.99 | | 0.99 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Di-n-octyl phthalate | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Endosulfan I (Alpha) | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Endosulfan II (Beta) | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Endosulfan sulfate | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Endrin | <0.0099 | | 0.0099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Endrin aldehyde | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| EPTC | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |

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QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

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

Lab Sample ID: MB 380-132045/21-A
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|-----------|--------------|--------|------|---|----------------|----------------|---------|
| Fluoranthene | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Fluorene | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| gamma-Chlordane | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Heptachlor | <0.0099 | | 0.0099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Heptachlor epoxide (isomer B) | <0.0099 | | 0.0099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Hexachlorobenzene | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Hexachlorocyclopentadiene | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Isophorone | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Lindane | <0.0099 | | 0.0099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Malathion | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Methoxychlor | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Metolachlor | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Molinate | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Naphthalene | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Parathion | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Pendimethalin (Penoxaline) | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Phenanthrene | <0.039 | | 0.039 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Propachlor | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Pyrene | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Simazine | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Terbacil | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Terbutylazine | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Thiobencarb | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Total Permethrin (mixed isomers) | <0.20 | | 0.20 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| trans-Nonachlor | <0.049 | | 0.049 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Trifluralin | <0.099 | | 0.099 | ug/L | | 02/02/25 15:45 | 02/03/25 14:54 | 1 |

| Tentatively Identified Compound | MB Est. Result | MB Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|---------------------------------|----------------|--------------|------|---|-------|---------|----------------|----------------|---------|
| Unknown | 0.692 | T J | ug/L | | 10.24 | N/A | 02/02/25 15:45 | 02/03/25 14:54 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Nitro-m-xylene | 99 | | 70 - 130 | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Perylene-d12 | 98 | | 70 - 130 | 02/02/25 15:45 | 02/03/25 14:54 | 1 |
| Triphenylphosphate | 98 | | 70 - 130 | 02/02/25 15:45 | 02/03/25 14:54 | 1 |

Lab Sample ID: LCS 380-132045/23-A
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | Limits |
|---------------------|-------------|------------|---------------|------|---|------|----------|
| 1-Methylnaphthalene | 1.97 | 2.03 | | ug/L | | 103 | 70 - 130 |
| 2,4'-DDD | 1.97 | 2.13 | | ug/L | | 108 | 70 - 130 |
| 2,4'-DDE | 1.97 | 2.08 | | ug/L | | 106 | 70 - 130 |
| 2,4'-DDT | 1.97 | 2.19 | | ug/L | | 111 | 70 - 130 |
| 2,4-Dinitrotoluene | 1.97 | 1.96 | | ug/L | | 100 | 70 - 130 |
| 2,6-Dinitrotoluene | 1.97 | 1.94 | | ug/L | | 99 | 70 - 130 |
| 2-Methylnaphthalene | 1.97 | 2.04 | | ug/L | | 103 | 70 - 130 |

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QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

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

Lab Sample ID: LCS 380-132045/23-A
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------|-------------|------------|---------------|------|---|------|-------------|
| 4,4'-DDD | 1.97 | 2.17 | | ug/L | | 110 | 70 - 130 |
| 4,4'-DDE | 1.97 | 2.12 | | ug/L | | 108 | 70 - 130 |
| 4,4'-DDT | 1.97 | 2.25 | | ug/L | | 114 | 70 - 130 |
| Acenaphthene | 1.97 | 1.97 | | ug/L | | 100 | 70 - 130 |
| Acenaphthylene | 1.97 | 2.11 | | ug/L | | 107 | 70 - 130 |
| Acetochlor | 1.97 | 2.20 | | ug/L | | 112 | 70 - 130 |
| Alachlor | 1.97 | 2.20 | | ug/L | | 112 | 70 - 130 |
| alpha-BHC | 1.97 | 2.05 | | ug/L | | 104 | 70 - 130 |
| alpha-Chlordane | 1.97 | 2.15 | | ug/L | | 109 | 70 - 130 |
| Anthracene | 1.97 | 1.86 | | ug/L | | 94 | 70 - 130 |
| Atrazine | 1.97 | 2.25 | | ug/L | | 114 | 70 - 130 |
| Benz(a)anthracene | 1.97 | 2.00 | | ug/L | | 101 | 70 - 130 |
| Benzo[a]pyrene | 1.97 | 1.87 | | ug/L | | 95 | 70 - 130 |
| Benzo[b]fluoranthene | 1.97 | 2.16 | | ug/L | | 110 | 70 - 130 |
| Benzo[g,h,i]perylene | 1.97 | 2.13 | | ug/L | | 108 | 70 - 130 |
| Benzo[k]fluoranthene | 1.97 | 2.16 | | ug/L | | 110 | 70 - 130 |
| beta-BHC | 1.97 | 2.08 | | ug/L | | 106 | 70 - 130 |
| Bis(2-ethylhexyl) phthalate | 1.97 | 2.31 | | ug/L | | 117 | 70 - 130 |
| Bromacil | 1.97 | 2.16 | | ug/L | | 109 | 70 - 130 |
| Butachlor | 1.97 | 2.32 | | ug/L | | 118 | 70 - 130 |
| Butylbenzylphthalate | 1.97 | 2.43 | | ug/L | | 123 | 70 - 130 |
| Chlorobenzilate | 1.97 | 1.83 | | ug/L | | 93 | 70 - 130 |
| Chloroneb | 1.97 | 2.11 | | ug/L | | 107 | 70 - 130 |
| Chlorothalonil (Draconil, Bravo) | 1.97 | 2.09 | | ug/L | | 106 | 70 - 130 |
| Chlorpyrifos | 1.97 | 2.25 | | ug/L | | 114 | 70 - 130 |
| Chrysene | 1.97 | 2.04 | | ug/L | | 103 | 70 - 130 |
| delta-BHC | 1.97 | 2.11 | | ug/L | | 107 | 70 - 130 |
| Di(2-ethylhexyl)adipate | 1.97 | 2.19 | | ug/L | | 111 | 70 - 130 |
| Dibenz(a,h)anthracene | 1.97 | 1.98 | | ug/L | | 101 | 70 - 130 |
| Diclorvos (DDVP) | 1.97 | 2.17 | | ug/L | | 110 | 70 - 130 |
| Dieldrin | 1.97 | 2.03 | | ug/L | | 103 | 70 - 130 |
| Diethylphthalate | 1.97 | 2.22 | | ug/L | | 113 | 70 - 130 |
| Dimethylphthalate | 1.97 | 2.18 | | ug/L | | 110 | 70 - 130 |
| Di-n-butyl phthalate | 3.94 | 4.34 | | ug/L | | 110 | 70 - 130 |
| Di-n-octyl phthalate | 1.97 | 1.94 | | ug/L | | 98 | 70 - 130 |
| Endosulfan I (Alpha) | 1.97 | 2.05 | | ug/L | | 104 | 70 - 130 |
| Endosulfan II (Beta) | 1.97 | 2.14 | | ug/L | | 109 | 70 - 130 |
| Endosulfan sulfate | 1.97 | 2.20 | | ug/L | | 112 | 70 - 130 |
| Endrin | 1.97 | 2.01 | | ug/L | | 102 | 70 - 130 |
| Endrin aldehyde | 1.97 | 2.09 | | ug/L | | 106 | 60 - 130 |
| EPTC | 1.97 | 2.12 | | ug/L | | 108 | 70 - 130 |
| Fluoranthene | 1.97 | 2.15 | | ug/L | | 109 | 70 - 130 |
| Fluorene | 1.97 | 2.15 | | ug/L | | 109 | 70 - 130 |
| gamma-Chlordane | 1.97 | 2.13 | | ug/L | | 108 | 70 - 130 |
| Heptachlor | 1.97 | 2.03 | | ug/L | | 103 | 70 - 130 |
| Heptachlor epoxide (isomer B) | 1.97 | 2.09 | | ug/L | | 106 | 70 - 130 |
| Hexachlorobenzene | 1.97 | 1.90 | | ug/L | | 97 | 70 - 130 |
| Hexachlorocyclopentadiene | 1.97 | 1.92 | | ug/L | | 98 | 70 - 130 |
| Indeno[1,2,3-cd]pyrene | 1.97 | 2.23 | | ug/L | | 113 | 70 - 130 |

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QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

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

Lab Sample ID: LCS 380-132045/23-A
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------|-------------|------------|---------------|------|---|------|-------------|
| Isophorone | 1.97 | 2.02 | | ug/L | | 103 | 70 - 130 |
| Lindane | 1.97 | 1.90 | | ug/L | | 96 | 70 - 130 |
| Malathion | 1.97 | 2.24 | | ug/L | | 113 | 70 - 130 |
| Methoxychlor | 1.97 | 2.05 | | ug/L | | 104 | 70 - 130 |
| Metolachlor | 1.97 | 2.19 | | ug/L | | 111 | 70 - 130 |
| Molinate | 1.97 | 2.19 | | ug/L | | 111 | 70 - 130 |
| Naphthalene | 1.97 | 2.01 | | ug/L | | 102 | 70 - 130 |
| Parathion | 1.97 | 2.20 | | ug/L | | 112 | 70 - 130 |
| Pendimethalin (Penoxaline) | 1.97 | 2.03 | | ug/L | | 103 | 70 - 130 |
| Phenanthrene | 1.97 | 1.98 | | ug/L | | 100 | 70 - 130 |
| Propachlor | 1.97 | 2.18 | | ug/L | | 110 | 70 - 130 |
| Pyrene | 1.97 | 2.14 | | ug/L | | 109 | 70 - 130 |
| Simazine | 1.97 | 2.24 | | ug/L | | 114 | 70 - 130 |
| Terbacil | 1.97 | 2.32 | | ug/L | | 118 | 70 - 130 |
| Terbutylazine | 1.97 | 2.22 | | ug/L | | 113 | 70 - 130 |
| Thiobencarb | 1.97 | 2.27 | | ug/L | | 115 | 70 - 130 |
| trans-Nonachlor | 1.97 | 2.09 | | ug/L | | 106 | 70 - 130 |
| Trifluralin | 1.97 | 1.88 | | ug/L | | 96 | 70 - 130 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|--------------------|---------------|---------------|----------|
| 2-Nitro-m-xylene | 97 | | 70 - 130 |
| Perylene-d12 | 98 | | 70 - 130 |
| Triphenylphosphate | 105 | | 70 - 130 |

Lab Sample ID: MRL 380-132045/22-A
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------|-------------|------------|---------------|------|---|------|-------------|
| 1-Methylnaphthalene | 0.0985 | 0.127 | | ug/L | | 129 | 50 - 150 |
| 2,4'-DDD | 0.0985 | 0.104 | | ug/L | | 105 | 50 - 150 |
| 2,4'-DDE | 0.0985 | 0.113 | | ug/L | | 115 | 50 - 150 |
| 2,4'-DDT | 0.0985 | 0.115 | | ug/L | | 116 | 50 - 150 |
| 2,4-Dinitrotoluene | 0.0985 | 0.120 | | ug/L | | 122 | 50 - 150 |
| 2,6-Dinitrotoluene | 0.0985 | 0.110 | | ug/L | | 112 | 50 - 150 |
| 2-Methylnaphthalene | 0.0985 | 0.117 | | ug/L | | 119 | 50 - 150 |
| 4,4'-DDD | 0.0985 | 0.120 | | ug/L | | 122 | 50 - 150 |
| 4,4'-DDE | 0.0985 | 0.112 | | ug/L | | 114 | 50 - 150 |
| 4,4'-DDT | 0.0985 | 0.107 | | ug/L | | 108 | 50 - 150 |
| Acenaphthene | 0.0985 | 0.104 | | ug/L | | 106 | 50 - 150 |
| Acenaphthylene | 0.0985 | 0.107 | | ug/L | | 109 | 50 - 150 |
| Acetochlor | 0.0985 | 0.121 | | ug/L | | 123 | 50 - 150 |
| Alachlor | 0.0492 | 0.0562 | | ug/L | | 114 | 50 - 150 |
| alpha-BHC | 0.0985 | 0.112 | | ug/L | | 113 | 50 - 150 |
| alpha-Chlordane | 0.0246 | 0.0302 | J | ug/L | | 123 | 50 - 150 |
| Anthracene | 0.0197 | 0.0235 | | ug/L | | 119 | 50 - 150 |
| Atrazine | 0.0492 | 0.0565 | | ug/L | | 115 | 50 - 150 |
| Benz(a)anthracene | 0.0492 | 0.0552 | | ug/L | | 112 | 50 - 150 |

QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

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

Lab Sample ID: MRL 380-132045/22-A
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Benzo[a]pyrene | 0.0197 | 0.0254 | | ug/L | | 129 | 50 - 150 |
| Benzo[b]fluoranthene | 0.0197 | 0.0210 | | ug/L | | 106 | 50 - 150 |
| Benzo[g,h,i]perylene | 0.0492 | 0.0460 | J | ug/L | | 94 | 50 - 150 |
| Benzo[k]fluoranthene | 0.0197 | 0.0179 | J | ug/L | | 91 | 50 - 150 |
| beta-BHC | 0.0985 | 0.122 | | ug/L | | 124 | 50 - 150 |
| Bis(2-ethylhexyl) phthalate | 0.591 | 0.655 | | ug/L | | 111 | 50 - 150 |
| Bromacil | 0.0985 | 0.115 | | ug/L | | 117 | 50 - 150 |
| Butachlor | 0.0492 | 0.0609 | | ug/L | | 124 | 50 - 150 |
| Butylbenzylphthalate | 0.492 | 0.613 | | ug/L | | 124 | 50 - 150 |
| Chlorobenzilate | 0.0985 | 0.0984 | | ug/L | | 100 | 50 - 150 |
| Chloroneb | 0.0985 | 0.106 | | ug/L | | 108 | 50 - 150 |
| Chlorothalonil (Draconil, Bravo) | 0.0985 | 0.0981 | | ug/L | | 100 | 50 - 150 |
| Chlorpyrifos | 0.0492 | 0.0548 | | ug/L | | 111 | 50 - 150 |
| Chrysene | 0.0197 | 0.0238 | | ug/L | | 121 | 50 - 150 |
| delta-BHC | 0.0985 | 0.127 | | ug/L | | 129 | 50 - 150 |
| Di(2-ethylhexyl)adipate | 0.591 | 0.677 | | ug/L | | 115 | 50 - 150 |
| Dibenz(a,h)anthracene | 0.0492 | 0.0514 | | ug/L | | 104 | 50 - 150 |
| Diclorvos (DDVP) | 0.0492 | 0.0640 | | ug/L | | 130 | 50 - 150 |
| Dieldrin | 0.00985 | 0.0127 | | ug/L | | 128 | 50 - 150 |
| Diethylphthalate | 0.492 | 0.586 | | ug/L | | 119 | 50 - 150 |
| Dimethylphthalate | 0.492 | 0.583 | | ug/L | | 118 | 50 - 150 |
| Di-n-butyl phthalate | 0.492 | 0.596 | J | ug/L | | 121 | 49 - 243 |
| Di-n-octyl phthalate | 0.0985 | 0.105 | | ug/L | | 107 | 50 - 150 |
| Endosulfan I (Alpha) | 0.0985 | 0.106 | | ug/L | | 108 | 50 - 150 |
| Endosulfan II (Beta) | 0.0985 | 0.128 | | ug/L | | 130 | 50 - 150 |
| Endosulfan sulfate | 0.0985 | 0.112 | | ug/L | | 114 | 50 - 150 |
| Endrin | 0.00985 | 0.0126 | | ug/L | | 128 | 50 - 150 |
| Endrin aldehyde | 0.0985 | 0.114 | | ug/L | | 116 | 50 - 150 |
| EPTC | 0.0985 | 0.104 | | ug/L | | 106 | 50 - 150 |
| Fluoranthene | 0.0985 | 0.110 | | ug/L | | 111 | 50 - 150 |
| Fluorene | 0.0492 | 0.0581 | | ug/L | | 118 | 50 - 150 |
| gamma-Chlordane | 0.0246 | 0.0250 | J | ug/L | | 102 | 50 - 150 |
| Heptachlor | 0.00985 | 0.0133 | | ug/L | | 135 | 50 - 150 |
| Heptachlor epoxide (isomer B) | 0.00985 | 0.0125 | | ug/L | | 127 | 50 - 150 |
| Hexachlorobenzene | 0.0492 | 0.0526 | | ug/L | | 107 | 50 - 150 |
| Hexachlorocyclopentadiene | 0.0492 | 0.0461 | J | ug/L | | 94 | 50 - 150 |
| Indeno[1,2,3-cd]pyrene | 0.0492 | 0.0405 | J | ug/L | | 82 | 50 - 150 |
| Isophorone | 0.0985 | 0.119 | | ug/L | | 121 | 50 - 150 |
| Lindane | 0.00985 | 0.0119 | | ug/L | | 121 | 50 - 150 |
| Malathion | 0.0985 | 0.107 | | ug/L | | 109 | 50 - 150 |
| Methoxychlor | 0.0492 | 0.0603 | | ug/L | | 123 | 50 - 150 |
| Metolachlor | 0.0492 | 0.0631 | | ug/L | | 128 | 50 - 150 |
| Molinate | 0.0985 | 0.118 | | ug/L | | 120 | 50 - 150 |
| Naphthalene | 0.0985 | 0.111 | | ug/L | | 113 | 50 - 150 |
| Parathion | 0.0985 | 0.0884 | J | ug/L | | 90 | 50 - 150 |
| Pendimethalin (Penoxaline) | 0.0985 | 0.0925 | J | ug/L | | 94 | 50 - 150 |
| Phenanthrene | 0.0394 | 0.0475 | | ug/L | | 121 | 50 - 150 |
| Propachlor | 0.0492 | 0.0585 | | ug/L | | 119 | 50 - 150 |
| Pyrene | 0.0492 | 0.0536 | | ug/L | | 109 | 50 - 150 |

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

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

Lab Sample ID: MRL 380-132045/22-A
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------|-------------|------------|---------------|------|---|------|-------------|
| Simazine | 0.0492 | 0.0589 | | ug/L | | 120 | 50 - 150 |
| Terbacil | 0.0985 | 0.115 | | ug/L | | 116 | 50 - 150 |
| Terbutylazine | 0.0985 | 0.113 | | ug/L | | 115 | 50 - 150 |
| Thiobencarb | 0.0985 | 0.113 | | ug/L | | 115 | 50 - 150 |
| trans-Nonachlor | 0.0246 | 0.0301 | J | ug/L | | 122 | 50 - 150 |
| Trifluralin | 0.0985 | 0.103 | | ug/L | | 104 | 50 - 150 |

| Surrogate | MRL %Recovery | MRL Qualifier | Limits |
|--------------------|---------------|---------------|----------|
| 2-Nitro-m-xylene | 97 | | 70 - 130 |
| Perylene-d12 | 95 | | 70 - 130 |
| Triphenylphosphate | 102 | | 70 - 130 |

Lab Sample ID: 380-133154-R-1-A MS
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| 1-Methylnaphthalene | <0.098 | | 1.96 | 2.01 | | ug/L | | 102 | 70 - 130 |
| 2,4'-DDD | <0.098 | | 1.96 | 2.10 | | ug/L | | 107 | 70 - 130 |
| 2,4'-DDE | <0.098 | | 1.96 | 2.02 | | ug/L | | 103 | 70 - 130 |
| 2,4'-DDT | <0.098 | | 1.96 | 2.08 | | ug/L | | 106 | 70 - 130 |
| 2,4-Dinitrotoluene | <0.098 | | 1.96 | 1.96 | | ug/L | | 100 | 70 - 130 |
| 2,6-Dinitrotoluene | <0.098 | | 1.96 | 1.95 | | ug/L | | 100 | 70 - 130 |
| 2-Methylnaphthalene | <0.098 | | 1.96 | 2.02 | | ug/L | | 103 | 70 - 130 |
| 4,4'-DDD | <0.098 | | 1.96 | 2.07 | | ug/L | | 106 | 70 - 130 |
| 4,4'-DDE | <0.098 | | 1.96 | 2.00 | | ug/L | | 102 | 70 - 130 |
| 4,4'-DDT | <0.098 | | 1.96 | 2.09 | | ug/L | | 107 | 70 - 130 |
| Acenaphthene | <0.098 | | 1.96 | 1.93 | | ug/L | | 99 | 70 - 130 |
| Acenaphthylene | <0.098 | | 1.96 | 2.06 | | ug/L | | 105 | 70 - 130 |
| Acetochlor | <0.098 | | 1.96 | 2.21 | | ug/L | | 113 | 70 - 130 |
| Alachlor | <0.049 | | 1.96 | 2.24 | | ug/L | | 114 | 70 - 130 |
| alpha-BHC | <0.098 | | 1.96 | 1.97 | | ug/L | | 101 | 70 - 130 |
| alpha-Chlordane | <0.049 | | 1.96 | 2.22 | | ug/L | | 112 | 70 - 130 |
| Anthracene | <0.020 | F1 | 1.96 | 0.939 | F1 | ug/L | | 48 | 70 - 130 |
| Atrazine | <0.049 | | 1.96 | 2.20 | | ug/L | | 112 | 70 - 130 |
| Benz(a)anthracene | <0.049 | | 1.96 | 1.71 | | ug/L | | 87 | 70 - 130 |
| Benzo[a]pyrene | <0.020 | | 1.96 | 1.48 | | ug/L | | 76 | 70 - 130 |
| Benzo[b]fluoranthene | <0.020 | | 1.96 | 2.17 | | ug/L | | 111 | 70 - 130 |
| Benzo[g,h,i]perylene | <0.049 | | 1.96 | 2.16 | | ug/L | | 110 | 70 - 130 |
| Benzo[k]fluoranthene | <0.020 | | 1.96 | 2.17 | | ug/L | | 111 | 70 - 130 |
| beta-BHC | <0.098 | | 1.96 | 2.01 | | ug/L | | 103 | 70 - 130 |
| Bis(2-ethylhexyl) phthalate | <0.59 | | 1.96 | 2.04 | | ug/L | | 104 | 70 - 130 |
| Bromacil | <0.098 | | 1.96 | 2.12 | | ug/L | | 108 | 70 - 130 |
| Butachlor | <0.049 | | 1.96 | 2.28 | | ug/L | | 117 | 70 - 130 |
| Butylbenzylphthalate | <0.49 | | 1.96 | 2.35 | | ug/L | | 120 | 70 - 130 |
| Chlorobenzilate | <0.098 | | 1.96 | 1.96 | | ug/L | | 100 | 70 - 130 |
| Chloroneb | <0.098 | | 1.96 | 2.05 | | ug/L | | 105 | 70 - 130 |
| Chlorothalonil (Draconil, Bravo) | <0.098 | | 1.96 | 2.03 | | ug/L | | 104 | 70 - 130 |

QC Sample Results

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

Job ID: 380-133139-1
 SDG: Weekly

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

Lab Sample ID: 380-133154-R-1-A MS
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec |
|-------------------------------|---------|-----------|-------|--------|-----------|------|---|------|----------|
| | Result | Qualifier | Added | Result | Qualifier | | | | |
| Chlorpyrifos | <0.049 | | 1.96 | 2.17 | | ug/L | | 111 | 70 - 130 |
| Chrysene | <0.020 | | 1.96 | 2.01 | | ug/L | | 103 | 70 - 130 |
| delta-BHC | <0.098 | | 1.96 | 2.06 | | ug/L | | 105 | 70 - 130 |
| Di(2-ethylhexyl)adipate | <0.59 | | 1.96 | 1.98 | | ug/L | | 101 | 70 - 130 |
| Dibenz(a,h)anthracene | <0.049 | | 1.96 | 1.99 | | ug/L | | 102 | 70 - 130 |
| Diclorvos (DDVP) | <0.049 | | 1.96 | 2.11 | | ug/L | | 108 | 70 - 130 |
| Dieldrin | 0.060 | | 1.96 | 2.10 | | ug/L | | 104 | 70 - 130 |
| Diethylphthalate | <0.49 | | 1.96 | 2.14 | | ug/L | | 110 | 70 - 130 |
| Dimethylphthalate | <0.49 | | 1.96 | 2.14 | | ug/L | | 109 | 70 - 130 |
| Di-n-butyl phthalate | <0.98 | | 3.92 | 4.21 | | ug/L | | 107 | 70 - 130 |
| Di-n-octyl phthalate | <0.098 | | 1.96 | 1.65 | | ug/L | | 84 | 70 - 130 |
| Endosulfan I (Alpha) | <0.098 | | 1.96 | 2.15 | | ug/L | | 110 | 70 - 130 |
| Endosulfan II (Beta) | <0.098 | | 1.96 | 2.12 | | ug/L | | 108 | 70 - 130 |
| Endosulfan sulfate | <0.098 | | 1.96 | 2.14 | | ug/L | | 109 | 70 - 130 |
| Endrin | <0.0098 | | 1.96 | 1.97 | | ug/L | | 101 | 70 - 130 |
| Endrin aldehyde | <0.098 | | 1.96 | 1.91 | | ug/L | | 97 | 60 - 130 |
| EPTC | <0.098 | | 1.96 | 2.13 | | ug/L | | 109 | 70 - 130 |
| Fluoranthene | <0.098 | | 1.96 | 2.08 | | ug/L | | 106 | 70 - 130 |
| Fluorene | <0.049 | | 1.96 | 2.08 | | ug/L | | 106 | 70 - 130 |
| gamma-Chlordane | <0.049 | | 1.96 | 2.17 | | ug/L | | 110 | 70 - 130 |
| Heptachlor | <0.0098 | | 1.96 | 2.06 | | ug/L | | 105 | 70 - 130 |
| Heptachlor epoxide (isomer B) | 0.011 | | 1.96 | 2.13 | | ug/L | | 108 | 70 - 130 |
| Hexachlorobenzene | <0.049 | | 1.96 | 1.85 | | ug/L | | 94 | 70 - 130 |
| Hexachlorocyclopentadiene | <0.049 | | 1.96 | 1.83 | | ug/L | | 93 | 70 - 130 |
| Indeno[1,2,3-cd]pyrene | <0.049 | | 1.96 | 2.21 | | ug/L | | 113 | 70 - 130 |
| Isophorone | <0.098 | | 1.96 | 2.03 | | ug/L | | 103 | 70 - 130 |
| Lindane | <0.0098 | | 1.96 | 1.84 | | ug/L | | 94 | 70 - 130 |
| Malathion | <0.098 | | 1.96 | 2.20 | | ug/L | | 112 | 70 - 130 |
| Methoxychlor | <0.049 | | 1.96 | 2.05 | | ug/L | | 105 | 70 - 130 |
| Metolachlor | <0.049 | | 1.96 | 2.23 | | ug/L | | 114 | 70 - 130 |
| Molinate | <0.098 | | 1.96 | 2.13 | | ug/L | | 109 | 70 - 130 |
| Naphthalene | <0.098 | | 1.96 | 2.00 | | ug/L | | 102 | 70 - 130 |
| Parathion | <0.098 | | 1.96 | 2.15 | | ug/L | | 110 | 70 - 130 |
| Pendimethalin (Penoxaline) | <0.098 | | 1.96 | 2.02 | | ug/L | | 103 | 70 - 130 |
| Phenanthrene | <0.039 | | 1.96 | 1.94 | | ug/L | | 99 | 70 - 130 |
| Propachlor | <0.049 | | 1.96 | 2.16 | | ug/L | | 110 | 70 - 130 |
| Pyrene | <0.049 | | 1.96 | 2.05 | | ug/L | | 105 | 70 - 130 |
| Simazine | <0.049 | | 1.96 | 2.09 | | ug/L | | 107 | 70 - 130 |
| Terbacil | <0.098 | | 1.96 | 2.27 | | ug/L | | 116 | 70 - 130 |
| Terbutylazine | <0.098 | | 1.96 | 2.14 | | ug/L | | 109 | 70 - 130 |
| Thiobencarb | <0.098 | | 1.96 | 2.22 | | ug/L | | 113 | 70 - 130 |
| trans-Nonachlor | <0.049 | | 1.96 | 2.15 | | ug/L | | 109 | 70 - 130 |
| Trifluralin | <0.098 | | 1.96 | 1.89 | | ug/L | | 97 | 70 - 130 |

| Surrogate | MS | MS | Limits |
|--------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 2-Nitro-m-xylene | 98 | | 70 - 130 |
| Perylene-d12 | 100 | | 70 - 130 |
| Triphenylphosphate | 102 | | 70 - 130 |

QC Sample Results

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

Job ID: 380-133139-1
 SDG: Weekly

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

Lab Sample ID: 380-133154-S-2-A DU
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | Sample | Sample | DU | DU | Unit | D | RPD | Limit |
|----------------------------------|---------|-----------|---------|-----------|------|---|-----|-------|
| | Result | Qualifier | Result | Qualifier | | | | |
| 1-Methylnaphthalene | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| 2,4'-DDD | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| 2,4'-DDE | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| 2,4'-DDT | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| 2,4-Dinitrotoluene | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| 2,6-Dinitrotoluene | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| 2-Methylnaphthalene | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| 4,4'-DDD | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| 4,4'-DDE | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| 4,4'-DDT | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Acenaphthene | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Acenaphthylene | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Acetochlor | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Alachlor | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| alpha-BHC | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| alpha-Chlordane | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Anthracene | <0.019 | | <0.020 | | ug/L | | NC | 20 |
| Atrazine | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Benz(a)anthracene | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Benzo[a]pyrene | <0.019 | | <0.020 | | ug/L | | NC | 20 |
| Benzo[b]fluoranthene | <0.019 | | <0.020 | | ug/L | | NC | 20 |
| Benzo[g,h,i]perylene | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Benzo[k]fluoranthene | <0.019 | | <0.020 | | ug/L | | NC | 20 |
| beta-BHC | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Bis(2-ethylhexyl) phthalate | <0.58 | | <0.59 | | ug/L | | NC | 20 |
| Bromacil | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Butachlor | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Butylbenzylphthalate | <0.49 | | <0.49 | | ug/L | | NC | 20 |
| Chlorobenzilate | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Chloroneb | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Chlorothalonil (Draconil, Bravo) | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Chlorpyrifos | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Chrysene | <0.019 | | <0.020 | | ug/L | | NC | 20 |
| delta-BHC | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Di(2-ethylhexyl)adipate | <0.58 | | <0.59 | | ug/L | | NC | 20 |
| Dibenz(a,h)anthracene | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Diclorvos (DDVP) | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Dieldrin | 0.040 | | 0.0362 | | ug/L | | 11 | 20 |
| Diethylphthalate | <0.49 | | <0.49 | | ug/L | | NC | 20 |
| Dimethylphthalate | <0.49 | | <0.49 | | ug/L | | NC | 20 |
| Di-n-butyl phthalate | <0.97 | | <0.98 | | ug/L | | NC | 20 |
| Di-n-octyl phthalate | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Endosulfan I (Alpha) | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Endosulfan II (Beta) | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Endosulfan sulfate | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Endrin | <0.0097 | | <0.0098 | | ug/L | | NC | 20 |
| Endrin aldehyde | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| EPTC | <0.097 | | <0.098 | | ug/L | | NC | 20 |

QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

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

Lab Sample ID: 380-133154-S-2-A DU
Matrix: Water
Analysis Batch: 132255

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 132045

| Analyte | Sample | Sample | DU | DU | Unit | D | RPD | Limit |
|----------------------------------|---------|-----------|---------|-----------|------|---|-----|-------|
| | Result | Qualifier | Result | Qualifier | | | | |
| Fluoranthene | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Fluorene | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| gamma-Chlordane | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Heptachlor | <0.0097 | | <0.0098 | | ug/L | | NC | 20 |
| Heptachlor epoxide (isomer B) | 0.014 | | 0.0117 | | ug/L | | 16 | 20 |
| Hexachlorobenzene | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Hexachlorocyclopentadiene | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Indeno[1,2,3-cd]pyrene | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Isophorone | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Lindane | <0.0097 | | <0.0098 | | ug/L | | NC | 20 |
| Malathion | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Methoxychlor | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Metolachlor | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Molinate | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Naphthalene | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Parathion | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Pendimethalin (Penoxaline) | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Phenanthrene | <0.039 | | <0.039 | | ug/L | | NC | 20 |
| Propachlor | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Pyrene | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Simazine | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Terbacil | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Terbutylazine | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Thiobencarb | <0.097 | | <0.098 | | ug/L | | NC | 20 |
| Total Permethrin (mixed isomers) | <0.19 | | <0.20 | | ug/L | | NC | 20 |
| trans-Nonachlor | <0.049 | | <0.049 | | ug/L | | NC | 20 |
| Trifluralin | <0.097 | | <0.098 | | ug/L | | NC | 20 |

| Surrogate | DU | DU | Limits |
|--------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 2-Nitro-m-xylene | 99 | | 70 - 130 |
| Perylene-d12 | 98 | | 70 - 130 |
| Triphenylphosphate | 102 | | 70 - 130 |

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-529323/1-A
Matrix: Water
Analysis Batch: 532848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 529323

| Tentatively Identified Compound | MB | MB | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|------|---|----|---------|----------------|----------------|---------|
| | Est. Result | Qualifier | | | | | | | |
| Tentatively Identified Compound | None | | ug/L | | | N/A | 02/03/25 13:00 | 02/12/25 15:07 | 1 |

| Surrogate | MB | MB | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| | %Recovery | Qualifier | | | | |
| 2,4,6-Tribromophenol (Surr) | 71 | | 33 - 139 | 02/03/25 13:00 | 02/12/25 15:07 | 1 |
| 2-Fluorobiphenyl (Surr) | 60 | | 33 - 126 | 02/03/25 13:00 | 02/12/25 15:07 | 1 |
| 2-Fluorophenol (Surr) | 42 | | 12 - 120 | 02/03/25 13:00 | 02/12/25 15:07 | 1 |
| Nitrobenzene-d5 (Surr) | 62 | | 36 - 120 | 02/03/25 13:00 | 02/12/25 15:07 | 1 |
| Phenol-d6 (Surr) | 28 | | 10 - 120 | 02/03/25 13:00 | 02/12/25 15:07 | 1 |

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QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-529323/1-A
Matrix: Water
Analysis Batch: 532848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 529323

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------|--------------|--------------|----------|----------------|----------------|---------|
| p-Terphenyl-d14 (Surr) | 94 | | 47 - 131 | 02/03/25 13:00 | 02/12/25 15:07 | 1 |

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 570-529323/1-A
Matrix: Water
Analysis Batch: 532856

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 529323

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|--------------|------|------|---|----------------|----------------|---------|
| 1-Methylnaphthalene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| 2-Methylnaphthalene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Acenaphthene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Acenaphthylene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Anthracene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Benzo[a]anthracene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Benzo[a]pyrene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Benzo[b]fluoranthene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Benzo[g,h,i]perylene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Benzo[k]fluoranthene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Chrysene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Dibenz(a,h)anthracene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Fluoranthene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Fluorene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Naphthalene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Phenanthrene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Pyrene | <0.20 | | 0.20 | ug/L | | 02/03/25 13:00 | 02/12/25 08:17 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2,4,6-Tribromophenol (Surr) | 65 | | 28 - 127 | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| 2-Fluorobiphenyl (Surr) | 61 | | 31 - 120 | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| 2-Fluorophenol (Surr) | 39 | | 17 - 120 | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Nitrobenzene-d5 (Surr) | 56 | | 27 - 120 | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| Phenol-d6 (Surr) | 26 | | 10 - 120 | 02/03/25 13:00 | 02/12/25 08:17 | 1 |
| p-Terphenyl-d14 (Surr) | 89 | | 45 - 120 | 02/03/25 13:00 | 02/12/25 08:17 | 1 |

Lab Sample ID: LCS 570-529323/2-A
Matrix: Water
Analysis Batch: 532856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 529323

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------|-------------|------------|---------------|------|---|------|-------------|
| 1-Methylnaphthalene | 20.0 | 13.7 | | ug/L | | 68 | 47 - 120 |
| 2-Methylnaphthalene | 20.0 | 15.3 | | ug/L | | 76 | 43 - 120 |
| Acenaphthene | 20.0 | 15.5 | | ug/L | | 78 | 60 - 132 |
| Acenaphthylene | 20.0 | 15.0 | | ug/L | | 75 | 54 - 126 |
| Anthracene | 20.0 | 15.8 | | ug/L | | 79 | 43 - 120 |
| Benzo[a]anthracene | 20.0 | 16.9 | | ug/L | | 85 | 42 - 133 |
| Benzo[a]pyrene | 20.0 | 16.3 | | ug/L | | 81 | 32 - 148 |

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QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCS 570-529323/2-A
Matrix: Water
Analysis Batch: 532856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 529323

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|-------------|------------|---------------|------|---|------|-------------|
| Benzo[b]fluoranthene | 20.0 | 16.7 | | ug/L | | 83 | 42 - 140 |
| Benzo[g,h,i]perylene | 20.0 | 13.2 | | ug/L | | 66 | 1 - 195 |
| Benzo[k]fluoranthene | 20.0 | 15.9 | | ug/L | | 79 | 25 - 146 |
| Chrysene | 20.0 | 15.7 | | ug/L | | 79 | 44 - 140 |
| Dibenz(a,h)anthracene | 20.0 | 14.1 | | ug/L | | 71 | 1 - 200 |
| Fluoranthene | 20.0 | 16.3 | | ug/L | | 81 | 43 - 121 |
| Fluorene | 20.0 | 16.1 | | ug/L | | 81 | 70 - 120 |
| Indeno[1,2,3-cd]pyrene | 20.0 | 14.5 | | ug/L | | 73 | 1 - 151 |
| Naphthalene | 20.0 | 12.5 | | ug/L | | 63 | 36 - 120 |
| Phenanthrene | 20.0 | 16.1 | | ug/L | | 80 | 65 - 120 |
| Pyrene | 20.0 | 17.2 | | ug/L | | 86 | 70 - 120 |

| Surrogate | LCS %Recovery | LCS Qualifier | LCS Limits |
|-----------------------------|---------------|---------------|------------|
| 2,4,6-Tribromophenol (Surr) | 76 | | 28 - 127 |
| 2-Fluorobiphenyl (Surr) | 72 | | 31 - 120 |
| 2-Fluorophenol (Surr) | 56 | | 17 - 120 |
| Nitrobenzene-d5 (Surr) | 61 | | 27 - 120 |
| Phenol-d6 (Surr) | 42 | | 10 - 120 |
| p-Terphenyl-d14 (Surr) | 81 | | 45 - 120 |

Lab Sample ID: LCSD 570-529323/3-A
Matrix: Water
Analysis Batch: 532856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 529323

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| 1-Methylnaphthalene | 20.0 | 16.2 | | ug/L | | 81 | 47 - 120 | 17 | 20 |
| 2-Methylnaphthalene | 20.0 | 17.4 | | ug/L | | 87 | 43 - 120 | 13 | 20 |
| Acenaphthene | 20.0 | 17.9 | | ug/L | | 89 | 60 - 132 | 14 | 29 |
| Acenaphthylene | 20.0 | 17.4 | | ug/L | | 87 | 54 - 126 | 15 | 45 |
| Anthracene | 20.0 | 18.2 | | ug/L | | 91 | 43 - 120 | 14 | 40 |
| Benzo[a]anthracene | 20.0 | 19.2 | | ug/L | | 96 | 42 - 133 | 12 | 32 |
| Benzo[a]pyrene | 20.0 | 16.1 | | ug/L | | 80 | 32 - 148 | 1 | 43 |
| Benzo[b]fluoranthene | 20.0 | 16.2 | | ug/L | | 81 | 42 - 140 | 3 | 43 |
| Benzo[g,h,i]perylene | 20.0 | 17.3 | | ug/L | | 87 | 1 - 195 | 27 | 61 |
| Benzo[k]fluoranthene | 20.0 | 15.8 | | ug/L | | 79 | 25 - 146 | 0 | 38 |
| Chrysene | 20.0 | 18.0 | | ug/L | | 90 | 44 - 140 | 14 | 53 |
| Dibenz(a,h)anthracene | 20.0 | 18.1 | | ug/L | | 91 | 1 - 200 | 25 | 75 |
| Fluoranthene | 20.0 | 17.2 | | ug/L | | 86 | 43 - 121 | 6 | 40 |
| Fluorene | 20.0 | 18.5 | | ug/L | | 92 | 70 - 120 | 13 | 23 |
| Indeno[1,2,3-cd]pyrene | 20.0 | 18.4 | | ug/L | | 92 | 1 - 151 | 24 | 60 |
| Naphthalene | 20.0 | 15.0 | | ug/L | | 75 | 36 - 120 | 18 | 39 |
| Phenanthrene | 20.0 | 18.8 | | ug/L | | 94 | 65 - 120 | 16 | 24 |
| Pyrene | 20.0 | 23.6 | *1 | ug/L | | 118 | 70 - 120 | 31 | 30 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|-----------------------------|----------------|----------------|-------------|
| 2,4,6-Tribromophenol (Surr) | 87 | | 28 - 127 |
| 2-Fluorobiphenyl (Surr) | 80 | | 31 - 120 |
| 2-Fluorophenol (Surr) | 67 | | 17 - 120 |

QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCSD 570-529323/3-A
Matrix: Water
Analysis Batch: 532856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 529323

| Surrogate | LCSD LCSD | | Limits |
|------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| Nitrobenzene-d5 (Surr) | 71 | | 27 - 120 |
| Phenol-d6 (Surr) | 48 | | 10 - 120 |
| p-Terphenyl-d14 (Surr) | 105 | | 45 - 120 |

Lab Sample ID: 380-133140-A-1-B MS
Matrix: Water
Analysis Batch: 532856

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 529323

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec | Limits |
|------------------------|--------|-----------|-------|--------|-----------|------|---|------|------|----------|
| | Result | Qualifier | Added | Result | Qualifier | | | | | |
| 1-Methylnaphthalene | <0.19 | | 19.1 | 15.3 | | ug/L | | 80 | | 36 - 120 |
| 2-Methylnaphthalene | <0.19 | | 19.1 | 16.8 | | ug/L | | 88 | | 32 - 124 |
| Acenaphthene | <0.19 | | 19.1 | 17.5 | | ug/L | | 92 | | 47 - 145 |
| Acenaphthylene | <0.19 | | 19.1 | 17.0 | | ug/L | | 89 | | 33 - 145 |
| Anthracene | <0.19 | | 19.1 | 17.2 | | ug/L | | 90 | | 27 - 133 |
| Benzo[a]anthracene | <0.19 | | 19.1 | 18.2 | | ug/L | | 95 | | 33 - 143 |
| Benzo[a]pyrene | <0.19 | | 19.1 | 17.7 | | ug/L | | 93 | | 17 - 163 |
| Benzo[b]fluoranthene | <0.19 | | 19.1 | 17.4 | | ug/L | | 91 | | 24 - 159 |
| Benzo[g,h,i]perylene | <0.19 | | 19.1 | 17.1 | | ug/L | | 89 | | 1 - 219 |
| Benzo[k]fluoranthene | <0.19 | | 19.1 | 16.9 | | ug/L | | 88 | | 11 - 162 |
| Chrysene | <0.19 | | 19.1 | 16.8 | | ug/L | | 88 | | 17 - 168 |
| Dibenz(a,h)anthracene | <0.19 | | 19.1 | 17.6 | | ug/L | | 92 | | 1 - 227 |
| Fluoranthene | <0.19 | | 19.1 | 14.8 | | ug/L | | 77 | | 26 - 137 |
| Fluorene | <0.19 | | 19.1 | 17.7 | | ug/L | | 93 | | 59 - 121 |
| Indeno[1,2,3-cd]pyrene | <0.19 | | 19.1 | 18.1 | | ug/L | | 95 | | 1 - 171 |
| Naphthalene | <0.19 | | 19.1 | 14.3 | | ug/L | | 75 | | 21 - 133 |
| Phenanthrene | <0.19 | | 19.1 | 17.6 | | ug/L | | 92 | | 54 - 120 |
| Pyrene | <0.19 | *1 | 19.1 | 21.6 | | ug/L | | 113 | | 52 - 120 |

| Surrogate | MS MS | | Limits |
|-----------------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 2,4,6-Tribromophenol (Surr) | 86 | | 28 - 127 |
| 2-Fluorobiphenyl (Surr) | 83 | | 31 - 120 |
| 2-Fluorophenol (Surr) | 61 | | 17 - 120 |
| Nitrobenzene-d5 (Surr) | 71 | | 27 - 120 |
| Phenol-d6 (Surr) | 45 | | 10 - 120 |
| p-Terphenyl-d14 (Surr) | 99 | | 45 - 120 |

Lab Sample ID: 380-133140-A-1-C MSD
Matrix: Water
Analysis Batch: 532856

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 529323

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec | Limits | RPD | RPD | Limit |
|---------------------|--------|-----------|-------|--------|-----------|------|---|------|------|----------|-----|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | | | | | |
| 1-Methylnaphthalene | <0.19 | | 19.3 | 13.9 | | ug/L | | 72 | | 36 - 120 | 10 | | 30 |
| 2-Methylnaphthalene | <0.19 | | 19.3 | 15.7 | | ug/L | | 82 | | 32 - 124 | 6 | | 30 |
| Acenaphthene | <0.19 | | 19.3 | 16.5 | | ug/L | | 86 | | 47 - 145 | 5 | | 48 |
| Acenaphthylene | <0.19 | | 19.3 | 15.9 | | ug/L | | 82 | | 33 - 145 | 7 | | 74 |
| Anthracene | <0.19 | | 19.3 | 16.4 | | ug/L | | 85 | | 27 - 133 | 4 | | 66 |
| Benzo[a]anthracene | <0.19 | | 19.3 | 17.9 | | ug/L | | 93 | | 33 - 143 | 2 | | 53 |
| Benzo[a]pyrene | <0.19 | | 19.3 | 15.2 | | ug/L | | 79 | | 17 - 163 | 15 | | 72 |

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: 380-133140-A-1-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 532856

Prep Batch: 529323

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | %Rec | %Rec | | RPD | Limit |
|------------------------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | RPD | | |
| Benzo[b]fluoranthene | <0.19 | | 19.3 | 15.5 | | ug/L | | 80 | 24 - 159 | 12 | 71 | |
| Benzo[g,h,i]perylene | <0.19 | | 19.3 | 16.3 | | ug/L | | 84 | 1 - 219 | 5 | 97 | |
| Benzo[k]fluoranthene | <0.19 | | 19.3 | 15.2 | | ug/L | | 79 | 11 - 162 | 10 | 63 | |
| Chrysene | <0.19 | | 19.3 | 16.8 | | ug/L | | 87 | 17 - 168 | 0 | 87 | |
| Dibenz(a,h)anthracene | <0.19 | | 19.3 | 17.4 | | ug/L | | 90 | 1 - 227 | 1 | 126 | |
| Fluoranthene | <0.19 | | 19.3 | 15.5 | | ug/L | | 80 | 26 - 137 | 5 | 66 | |
| Fluorene | <0.19 | | 19.3 | 17.1 | | ug/L | | 88 | 59 - 121 | 4 | 38 | |
| Indeno[1,2,3-cd]pyrene | <0.19 | | 19.3 | 17.8 | | ug/L | | 92 | 1 - 171 | 2 | 99 | |
| Naphthalene | <0.19 | | 19.3 | 13.6 | | ug/L | | 70 | 21 - 133 | 5 | 65 | |
| Phenanthrene | <0.19 | | 19.3 | 17.0 | | ug/L | | 88 | 54 - 120 | 4 | 39 | |
| Pyrene | <0.19 | *1 | 19.3 | 21.6 | | ug/L | | 112 | 52 - 120 | 0 | 49 | |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|-----------------------------|---------------|---------------|----------|
| 2,4,6-Tribromophenol (Surr) | 79 | | 28 - 127 |
| 2-Fluorobiphenyl (Surr) | 76 | | 31 - 120 |
| 2-Fluorophenol (Surr) | 62 | | 17 - 120 |
| Nitrobenzene-d5 (Surr) | 68 | | 27 - 120 |
| Phenol-d6 (Surr) | 43 | | 10 - 120 |
| p-Terphenyl-d14 (Surr) | 100 | | 45 - 120 |

Method: 8015B GRO LL - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-531277/5

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 531277

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|----|------|---|----------|----------------|---------|
| GRO (C6-C10) | <10 | | 10 | ug/L | | | 02/07/25 16:30 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 90 | | 38 - 134 | | 02/07/25 16:30 | 1 |

Lab Sample ID: LCS 570-531277/3

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 531277

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Gasoline Range Organics (C4-C13) | 400 | 412 | | ug/L | | 103 | 78 - 120 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-----------------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene (Surr) | 93 | | 38 - 134 |

QC Sample Results

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

Job ID: 380-133139-1
SDG: Weekly

Method: 8015B GRO LL - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCSD 570-531277/4
Matrix: Water
Analysis Batch: 531277

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------------------------|------------------|-----------------------|----------------|------|---|------|-------------|-----|-----------|
| Gasoline Range Organics (C4-C13) | 400 | 403 | | ug/L | | 101 | 78 - 120 | 2 | 10 |
| Surrogate | | | | | | | | | |
| | %Recovery | LCSD Qualifier | Limits | | | | | | |
| 4-Bromofluorobenzene (Surr) | 97 | | 38 - 134 | | | | | | |

Lab Sample ID: 380-133140-C-1 MS
Matrix: Water
Analysis Batch: 531277

Client Sample ID: Matrix Spike
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------|------------------|---------------------|---------------|-----------|--------------|------|---|------|-------------|
| Gasoline Range Organics (C4-C13) | <10 | | 400 | 380 | | ug/L | | 95 | 68 - 122 |
| Surrogate | | | | | | | | | |
| | %Recovery | MS Qualifier | Limits | | | | | | |
| 4-Bromofluorobenzene (Surr) | 94 | | 38 - 134 | | | | | | |

Lab Sample ID: 380-133140-C-1 MSD
Matrix: Water
Analysis Batch: 531277

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------------------------|------------------|----------------------|---------------|------------|---------------|------|---|------|-------------|-----|-----------|
| Gasoline Range Organics (C4-C13) | <10 | | 400 | 384 | | ug/L | | 96 | 68 - 122 | 1 | 18 |
| Surrogate | | | | | | | | | | | |
| | %Recovery | MSD Qualifier | Limits | | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 94 | | 38 - 134 | | | | | | | | |

QC Association Summary

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

Job ID: 380-133139-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 132045

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|---------------------------|-----------|--------|--------|------------|
| 380-133139-1 | HALAWA SHAFT VIEWING POOL | Total/NA | Water | 525.2 | |
| MB 380-132045/21-A | Method Blank | Total/NA | Water | 525.2 | |
| LCS 380-132045/23-A | Lab Control Sample | Total/NA | Water | 525.2 | |
| MRL 380-132045/22-A | Lab Control Sample | Total/NA | Water | 525.2 | |
| 380-133154-R-1-A MS | Matrix Spike | Total/NA | Water | 525.2 | |
| 380-133154-S-2-A DU | Duplicate | Total/NA | Water | 525.2 | |

Analysis Batch: 132255

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|---------------------------|-----------|--------|--------|------------|
| 380-133139-1 | HALAWA SHAFT VIEWING POOL | Total/NA | Water | 525.2 | 132045 |
| MB 380-132045/21-A | Method Blank | Total/NA | Water | 525.2 | 132045 |
| LCS 380-132045/23-A | Lab Control Sample | Total/NA | Water | 525.2 | 132045 |
| MRL 380-132045/22-A | Lab Control Sample | Total/NA | Water | 525.2 | 132045 |
| 380-133154-R-1-A MS | Matrix Spike | Total/NA | Water | 525.2 | 132045 |
| 380-133154-S-2-A DU | Duplicate | Total/NA | Water | 525.2 | 132045 |

Prep Batch: 529323

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|---------------------------|-----------|--------|--------|------------|
| 380-133139-1 | HALAWA SHAFT VIEWING POOL | Total/NA | Water | 625.1 | |
| MB 570-529323/1-A | Method Blank | Total/NA | Water | 625.1 | |
| LCS 570-529323/2-A | Lab Control Sample | Total/NA | Water | 625.1 | |
| LCSD 570-529323/3-A | Lab Control Sample Dup | Total/NA | Water | 625.1 | |
| 380-133140-A-1-B MS | Matrix Spike | Total/NA | Water | 625.1 | |
| 380-133140-A-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 625.1 | |

Analysis Batch: 532848

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|---------------------------|-----------|--------|--------|------------|
| 380-133139-1 | HALAWA SHAFT VIEWING POOL | Total/NA | Water | 625.1 | 529323 |
| MB 570-529323/1-A | Method Blank | Total/NA | Water | 625.1 | 529323 |

Analysis Batch: 532856

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|---------------------------|-----------|--------|-----------|------------|
| 380-133139-1 | HALAWA SHAFT VIEWING POOL | Total/NA | Water | 625.1 SIM | 529323 |
| MB 570-529323/1-A | Method Blank | Total/NA | Water | 625.1 SIM | 529323 |
| LCS 570-529323/2-A | Lab Control Sample | Total/NA | Water | 625.1 SIM | 529323 |
| LCSD 570-529323/3-A | Lab Control Sample Dup | Total/NA | Water | 625.1 SIM | 529323 |
| 380-133140-A-1-B MS | Matrix Spike | Total/NA | Water | 625.1 SIM | 529323 |
| 380-133140-A-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 625.1 SIM | 529323 |

GC VOA

Analysis Batch: 531277

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|-------------------------------|-----------|--------|--------------|------------|
| 380-133139-1 | HALAWA SHAFT VIEWING POOL | Total/NA | Water | 8015B GRO LL | |
| 380-133139-2 | TB: HALAWA SHAFT VIEWING POOL | Total/NA | Water | 8015B GRO LL | |
| MB 570-531277/5 | Method Blank | Total/NA | Water | 8015B GRO LL | |
| LCS 570-531277/3 | Lab Control Sample | Total/NA | Water | 8015B GRO LL | |
| LCSD 570-531277/4 | Lab Control Sample Dup | Total/NA | Water | 8015B GRO LL | |
| 380-133140-C-1 MS | Matrix Spike | Total/NA | Water | 8015B GRO LL | |
| 380-133140-C-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 8015B GRO LL | |

Lab Chronicle

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

Job ID: 380-133139-1
 SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-133139-1

Date Collected: 01/29/25 10:00

Matrix: Water

Date Received: 01/31/25 10:27

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|-----------|----------------------|
| Total/NA | Prep | 525.2 | | | 132045 | IQ42 | EA POM | 02/02/25 15:45 |
| Total/NA | Analysis | 525.2 | | 1 | 132255 | Q8LA | EA POM | 02/03/25 20:36 |
| Total/NA | Prep | 625.1 | | | 529323 | OAJ3 | EET CAL 4 | 02/03/25 13:00 |
| Total/NA | Analysis | 625.1 | | 1 | 532848 | CG | EET CAL 4 | 02/12/25 15:54 |
| Total/NA | Prep | 625.1 | | | 529323 | OAJ3 | EET CAL 4 | 02/03/25 13:00 |
| Total/NA | Analysis | 625.1 SIM | | 1 | 532856 | PQS1 | EET CAL 4 | 02/12/25 10:28 |
| Total/NA | Analysis | 8015B GRO LL | | 1 | 531277 | BH4T | EET CAL 4 | 02/07/25 16:54 |

Client Sample ID: TB: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-133139-2

Date Collected: 01/29/25 10:00

Matrix: Water

Date Received: 01/31/25 10:27

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|-----------|----------------------|
| Total/NA | Analysis | 8015B GRO LL | | 1 | 531277 | BH4T | EET CAL 4 | 02/07/25 17:19 |

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100
 EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

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

Job ID: 380-133139-1
SDG: Weekly

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 | 01-31-25 * |
| <p>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.</p> | | | |
| Analysis Method | Prep Method | Matrix | Analyte |
| 525.2 | 525.2 | Water | 1-Methylnaphthalene |
| 525.2 | 525.2 | Water | 2,4'-DDD |
| 525.2 | 525.2 | Water | 2,4'-DDE |
| 525.2 | 525.2 | Water | 2,4'-DDT |
| 525.2 | 525.2 | Water | 2,4-Dinitrotoluene |
| 525.2 | 525.2 | Water | 2,6-Dinitrotoluene |
| 525.2 | 525.2 | Water | 2-Methylnaphthalene |
| 525.2 | 525.2 | Water | 4,4'-DDD |
| 525.2 | 525.2 | Water | 4,4'-DDE |
| 525.2 | 525.2 | Water | 4,4' DDT |
| 525.2 | 525.2 | Water | Acetochlor |
| 525.2 | 525.2 | Water | alpha-BHC |
| 525.2 | 525.2 | Water | alpha-Chlordane |
| 525.2 | 525.2 | Water | beta-BHC |
| 525.2 | 525.2 | Water | Chlorobenzilate |
| 525.2 | 525.2 | Water | Chloroneb |
| 525.2 | 525.2 | Water | Chlorothalonil (Draconil, Bravo) |
| 525.2 | 525.2 | Water | Chlorpyrifos |
| 525.2 | 525.2 | Water | delta-BHC |
| 525.2 | 525.2 | Water | Diclorvos (DDVP) |
| 525.2 | 525.2 | Water | Endosulfan I (Alpha) |
| 525.2 | 525.2 | Water | Endosulfan II (Beta) |
| 525.2 | 525.2 | Water | Endosulfan sulfate |
| 525.2 | 525.2 | Water | Endrin aldehyde |
| 525.2 | 525.2 | Water | EPTC |
| 525.2 | 525.2 | Water | gamma-Chlordane |
| 525.2 | 525.2 | Water | Isophorone |
| 525.2 | 525.2 | Water | Malathion |
| 525.2 | 525.2 | Water | Parathion |
| 525.2 | 525.2 | Water | Pendimethalin (Penoxaline) |
| 525.2 | 525.2 | Water | Terbacil |
| 525.2 | 525.2 | Water | Terbutylazine |
| 525.2 | 525.2 | Water | Total Permethrin (mixed isomers) |
| 525.2 | 525.2 | Water | trans-Nonachlor |

Laboratory: Eurofins Calscience

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

| Authority | Program | Identification Number | Expiration Date |
|--------------|---|-----------------------|-----------------|
| A2LA | Dept. of Defense ELAP | 7296.01 | 11-30-26 |
| Arizona | State | AZ0830 | 11-16-25 |
| Arkansas DEQ | State | 88-01672 | 07-02-25 |
| California | Los Angeles County Sanitation Districts | 9257304 | 07-31-26 |
| California | SCAQMD LAP | 17LA0919 | 11-30-25 |
| California | State | 3082 | 02-12-25 |

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

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-133139-1
SDG: Weekly

Laboratory: Eurofins Calscience (Continued)

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

| Authority | Program | Identification Number | Expiration Date |
|------------|---------------------|-----------------------|-----------------|
| Kansas | NELAP | E-10420 | 07-31-25 |
| Nevada | State | CA00111 | 07-31-25 |
| Oregon | NELAP | 4175 | 02-02-26 |
| USDA | US Federal Programs | 525-23-159-97150 | 06-08-26 |
| Washington | State | C916 | 10-11-25 |

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Method Summary

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

Job ID: 380-133139-1
SDG: Weekly

| Method | Method Description | Protocol | Laboratory |
|--------------|--|-----------|------------|
| 525.2 | Semivolatile Organic Compounds (GC/MS) | EPA | EA POM |
| 625.1 | Semivolatile Organic Compounds (GC/MS) | EPA | EET CAL 4 |
| 625.1 SIM | Semivolatile Organic Compounds GC/MS (SIM) | EPA | EET CAL 4 |
| 8015B GRO LL | Gasoline Range Organics - (GC) | SW846 | EET CAL 4 |
| 5030C | Purge and Trap | SW846 | EET CAL 4 |
| 525.2 | Extraction of Semivolatile Compounds | EPA | EA POM |
| 625.1 | Liquid-Liquid Extraction | 40CFR136A | EET CAL 4 |

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

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

Job ID: 380-133139-1
SDG: Weekly

| <u>Lab Sample ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Collected</u> | <u>Received</u> |
|----------------------|-------------------------------|---------------|------------------|-----------------|
| 380-133139-1 | HALAWA SHAFT VIEWING POOL | Water | 01/29/25 10:00 | 01/31/25 10:27 |
| 380-133139-2 | TB: HALAWA SHAFT VIEWING POOL | Water | 01/29/25 10:00 | 01/31/25 10:27 |

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Eurofins Eaton Analytical Pomona

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

Chain of Custody Record


| Client Information | | Sampler | | Lab PM | | Carrier Tracking No(s) | | COC No: | | | | | |
|--|--|---------------------------------|-------------|--|---|--|----|---|----|---------------------|---|---------------------------------------|--|
| Client Contact Kirk Iwamoto | | Phone 808-748-5840 | | Arada, Rachele | | E-Mail Rachele.Arada@et.eurofinsus.com | | 380-28005-2757 1 | | | | | |
| Company City & County of Honolulu | | PWSID: | | State of Origin | | Page | | Page 1 of 1 | | | | | |
| Address 630 South Beretania Street Chemistry Lab | | Due Date Requested | | Analysis Requested Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 625-1, 625-1_SIM 8015B_GRO_LL - (MOD) GRO 8015B_DRO_LL_CS - HNL Ranges: C10-C24/C24-C36/C8-C18 525-2_PREC - (MOD) 525plus Plus TICs 537-1_DW_PREC - 537-1 Full List 533 - All Analytes | | Total Number of containers | | Job #. | | | | | |
| City Honolulu | | TAT Requested (days) | | | | | | Preservation Codes: R NaThioSO4 RA NaThio/HCl Q Na2SO3 QA Na2SO3/HCl Y Trizma I NH4 Acetate | | | | | |
| State Zip: HI, 96843 | | Compliance Project Δ Yes Δ No | | | | | | Other: | | | | | |
| Phone: 808-748-5843 | | PO #: C20525101 exp 05312023 | | | | | | Special Instructions/Note: | | | | | |
| Email: Kiwamoto@hbws.org | | WO #: | | | | | | | | | | | |
| Project Name: RED-HILL/HBWS Sites Event Desc RUSH Weekly Red Hill | | Project #: 38001111 | | | | | | | | | | | |
| Site: Hawaii | | SSOW#: | | | | | | | | | | | |
| Sample Identification | | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | R | RA | Q | QA | Y | I | | |
| Halawa Shaft Viewing Pool | | 1/29/25 | 1000 | G | Water | | 2 | 3 | 2 | 2 | | | |
| TRIP BLANK | | 1/29/25 | 1000 | G | Water | | 2 | | | | | 380-133139 COC Temp blank: 3°C | |
| Possible Hazard Identification | | | | | | 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 | | | | | | <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) | | | | | | Special Instructions/QC Requirements | | | | | | | |
| Empty Kit Relinquished by | | Date | | Time | | Method of Shipment: FED EX 7717 5805 7473 | | | | | | | |
| Relinquished by [Signature] | | 1-29-2025 1040 | | Company BWS | | Received by: Lesli Laanui | | Date/Time 1-29-2025 1040 | | Company BWS | | | |
| Relinquished by [Signature] | | 1-29-2023 1200 | | Company BWS | | Received by: [Signature] | | Date/Time 01/31/25 10:27 | | Company [Signature] | | | |
| Relinquished by | | Date/Time | | Company | | Received by: | | Date/Time: | | Company | | | |
| Custody Seals Intact | | Custody Seal No | | Cooler Temperature(s) °C and Other Remarks. | | (7518) 1.9°-0.0°-1.9° GEL-FROZEN | | | | | | | |

Eurofins Eaton Analytical Pomona

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

Chain of Custody Record

eurofins | Environment Testing

| Client Information | | Sampler | Lab PM | | Carrier Tracking No(s) | | COC No: | | | | | | | | | | | | | | | | | | | | |
|--|----------------------------|---------------------------------|--|---|--|--|------------------|--------------------------|-----------------------------------|--|--------------------------------------|---------------------------------|--|--------------------------------------|---------------------------------|--------------------|--|--|--|--|--|--|--|--|---|--|--|
| Client Contact Kirk Iwamoto | | Phone 808-748-5840 | Arada, Rachele | | State of Origin | | 380-28005-2757 1 | | | | | | | | | | | | | | | | | | | | |
| Company City & County of Honolulu | | PWSID: | E-Mail Rachele.Arada@et.eurofinsus.com | | Page | | Page 1 of 1 | | | | | | | | | | | | | | | | | | | | |
| Address 630 South Beretania Street Chemistry Lab | | | Analysis Requested | | | Job #: | | | | | | | | | | | | | | | | | | | | | |
| City Honolulu | | Due Date Requested | <table style="width:100%; text-align: center; font-size: 8px;"> <tr> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>625-1, 625-1_SIM</th> <th>8015B_GRO_LL - (MOD) GRO</th> <th>8015B_DRO_LL_CS - HNL Ranges: C10-C24/C24-C36/C8-C18</th> <th>625-2_PREC - (MOD) 525plus Plus TICs</th> <th>537-1_DW_PREC - 537-1 Full List</th> <th>533 - All Analytes</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | | | | | | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 625-1, 625-1_SIM | 8015B_GRO_LL - (MOD) GRO | 8015B_DRO_LL_CS - HNL Ranges: C10-C24/C24-C36/C8-C18 | 625-2_PREC - (MOD) 525plus Plus TICs | 537-1_DW_PREC - 537-1 Full List | 533 - All Analytes | | | | | | | | | Preservation Codes: R NaThioSO4 RA NaThio/HCl Q Na2SO3 QA Na2SO3/HCl Y Trizma I NH4 Acetate | | |
| Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 625-1, 625-1_SIM | | | | | | | 8015B_GRO_LL - (MOD) GRO | 8015B_DRO_LL_CS - HNL Ranges: C10-C24/C24-C36/C8-C18 | 625-2_PREC - (MOD) 525plus Plus TICs | 537-1_DW_PREC - 537-1 Full List | 533 - All Analytes | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| State Zip: HI, 96843 | | TAT Requested (days) | | | | | | | Other: | | | | | | | | | | | | | | | | | | |
| Phone: 808-748-5843 | | Compliance Project Δ Yes Δ No | | | | | | | Special Instructions/Note: | | | | | | | | | | | | | | | | | | |
| Email: Kiwamoto@hbws.org | | PO #: C20525101 exp 05312023 | | | | | | | Total Number of containers | | | | | | | | | | | | | | | | | | |
| Project Name: RED-HILL/HBWS Sites Event Desc RUSH Weekly Red Hill | | WO #: | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site: Hawaii | | Project #: 38001111 | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSOW#: | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Identification | | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Preservation Code: | | R | RA | Q | QA | Y | I | | | | | | | | | | | | | | | | |
| Halawa Shaft Viewing Pool | | 1/29/25 | 1000 | G | Water | | 2 | 3 | 2 | 2 | | | | | | | | | | | | | | | | | |
| TRIP BLANK | | 1/29/25 | 1000 | G | Water | | | 2 | | | | | | | | | | | | | | | | | | | |
|  380-133139 COC Temp blank: 3°C | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Possible Hazard Identification | | | | | 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 | | | | | <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) | | | | | Special Instructions/QC Requirements | | | | | | | | | | | | | | | | | | | | | | |
| Empty Kit Relinquished by | | Date | | Time | | Method of Shipment: FED EX 7717 5805 7473 | | | | | | | | | | | | | | | | | | | | | |
| Relinquished by [Signature] | | 1-29-2025 1040 | | Company BWS | | Received by: [Signature] | | Date/Time 1-29-2025 1040 | | Company BWS | | | | | | | | | | | | | | | | | |
| Relinquished by [Signature] | | 1-29-2023 1200 | | Company BWS | | Received by: [Signature] | | Date/Time 01/31/25 10:27 | | Company [Signature] | | | | | | | | | | | | | | | | | |
| Relinquished by | | Date/Time | | Company | | Received by: | | Date/Time: | | Company | | | | | | | | | | | | | | | | | |
| Custody Seals Intact. Δ Yes Δ No | | Custody Seal No | | Cooler Temperature(s) °C and Other Remarks: (7518) 1.9°-0.0°-1.9° GEL-FROZEN | | | | | | | | | | | | | | | | | | | | | | | |

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Chain of Custody Record



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|---|--|----------------------------|--|--|----------------------|
| Client Information (Sub Contract Lab) | | Sampler: N/A | Lab PM: Arada, Rachelle | Carrier Tracking No(s): N/A | COC No: 380-167498.1 |
| Client Contact: N/A | | Phone: N/A | E-Mail: Rachelle.Arada@at.eurofins.com | State of Origin: Hawaii | Page: Page 1 of 1 |
| Shipping/Receiving Company: Eurofins Environment Testing Southwest, | | Job #: 380-133139-1 | | | |
| Address: 2841 Dow Avenue, Suite 100, Tustin | | Preservation Codes: | | | |
| City: Tustin | State: CA, 92780 | PO #: N/A | Matrix: N/A | Analysis Requested | |
| Phone: 714-695-5494(Tel) | Email: N/A | WO #: N/A | Sample Type (C=Comp, G=grab): G | Total Number of Containers: 6 | |
| Project Name: RED-HILL | Project #: 38001111 | SSOW#: N/A | Sample Time: 10:00 Hawaiian | MRLs are needed. Confirm any hits >RL. | |
| Site: Honolulu BWS Sites | Client ID (Lab ID): HALAWA SHAFT VIEWING POOL (380-133139-1) | Sample Date: 1/29/25 | Sample Time: 10:00 Hawaiian | MRLs are needed. | |
| Special Instructions/Note: | | Special Instructions/Note: | | | |
| Other: N/A | | MRLs are needed. | | | |

| | |
|--|--|
| Date/Time: 2/11/25 10:10 Received by: <i>Jon</i> Company: <i>WAP</i> | Date/Time: 2/11/25 10:10 Received by: <i>Jon</i> Company: <i>WAP</i> |
| Date/Time: 2/12/25 1:00 Received by: <i>Jon</i> Company: <i>WAP</i> | Date/Time: 2/12/25 1:00 Received by: <i>Jon</i> Company: <i>WAP</i> |

Special Instructions/OC Requirements: Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Method of Shipment: _____

Time: _____

Cooler Temperature(s) °C and Other Remarks: 24/13 OSC/12



Chain of Custody Record

Client Information (Sub Contract Lab)
 Client Contact: Araba, Rachelle
 Shipping/Receiving: Rachelle.Arade@at.eurofins.com
 Company: Eurofins Environment Testing Southwest, State Hawaii
 Address: 2841 Dow Avenue, Suite 100, Tustin, CA, 92780
 Phone: 714-695-5494(Tel)
 Email: N/A
 Project Name: RED-HILL
 Site: Honolulu BWS Sites

Sampler N/A
Lab PM: Araba, Rachelle
Carrier Tracking No(s): N/A
State of Origin: Hawaii
COC No.: 380-167498.1
Page: Page 1 of 1
Job #: 380-133139-1
Preservation Codes:

| Sample Identification | Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (Water, Sewage, Other) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 6016B_DRO_LL_C8/85/DC_LL_HNL Ranges: C10-C24/C24-C36/38-C18 | 6016B_GRO_LL/6030C (MOD) GRO | 625.1_Sm/526_Prop (MOD) Extended PAH List | Analysis Requested | Total Number of Containers | Special Instructions/Note: |
|--|--------------------|-------------|----------------|------------------------------|-------------------------------|-----------------------------------|----------------------------|---|------------------------------|---|--------------------|----------------------------|--|
| HALAWA SHAFT VIEWING POOL (380-133139-1) | | 1/29/25 | 10:00 Hawaiian | G | Water | X | X | X | X | X | | 6 | MRLs are needed. Confirm any hits >RL. |
| TB: HALAWA SHAFT VIEWING POOL (380-133139-2) | | 1/29/25 | 10:00 Hawaiian | G | Water | | | X | | | | 2 | MRLs are needed. |



Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV Other (specify) Primary Deliverable Rank: 2
 Empty Kit Relinquished by
 Relinquished by: [Signature] Date: 2/11/25
 Relinquished by: [Signature] Date: 2/12/25
 Relinquished by: [Signature] Date: 2/12/25
 Custody Seals Intact: Yes No
 Custody Seal No. 2413 OSC12
 Cooler Temperature(s) °C and Other Remarks: 2413 OSC12
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:
 Method of Shipment:
 Date/Time: 2/11/25 10:10 Company: EEP
 Date/Time: 2/12/25 1:00 Company: WTP
 Date/Time: 2/12/25 1:00 Company: WTP
 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/test/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.



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-133139-1

SDG Number: Weekly

Login Number: 133139

List Number: 1

Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

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



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-133139-1

SDG Number: Weekly

Login Number: 133139

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 02/03/25 11:35 AM

| Question | Answer | Comment |
|---|--------|------------------------------------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 3.0 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | 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 <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |