

# ANALYTICAL REPORT

## PREPARED FOR

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City & County of Honolulu  
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Public Service Bldg. Room 310  
Honolulu, Hawaii 96843

Generated 2/25/2025 9:22:29 AM

## JOB DESCRIPTION

RED-HILL  
Weekly

## JOB NUMBER

380-134238-1

# Eurofins Eaton Analytical Pomona

## Job Notes

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The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins 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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# Definitions/Glossary

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

Job ID: 380-134238-1  
SDG: Weekly

## Qualifiers

### GC/MS Semi VOA

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

### GC Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| *1        | LCS/LCSD RPD 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. |

## 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: 380-134238-1

**Job ID: 380-134238-1**

**Eurofins Eaton Analytical Pomona**

## Job Narrative 380-134238-1

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 2/6/2025 10:22 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 1.3°C.

### GC/MS Semi VOA

Method 625.1\_SIM: The laboratory control sample (LCS) and laboratory control sample (LCSD) for preparation batch 570-531324 and analytical batch 570-531865 recovered outside control limits for the following analytes: 1-Methylnaphthalene, Acenaphthene, Acenaphthylene and Fluorene. The LCS and LCSD was re-prep and re-ran. The compounds still failed low. The samples HT are expired therefore, no re-extraction. The data will be reported per PM/Client request. 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.

### 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 method reporting limit check (MRL) for preparation batch 570-531752 and analytical batch 570-532732 recovered outside control limits for the following analytes: C10-C28. These analytes were biased high in the MRL and were not detected in the associated samples; therefore, the data have been reported.

Method 8015B\_DRO\_LL\_CS: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-531752 and analytical batch 570-532732 recovered outside control limits for the following analytes: C10-C28. Laboratory control sample / laboratory control sample duplicate (LCS/LCSD) percent recovery is in control for affected analytes.

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: 380-134238-1  
SDG: Weekly

**Client Sample ID: Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-134238-1**

No Detections.

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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: 380-134238-1  
SDG: Weekly

## Client Sample ID: Halawa Shaft Viewing Pool

Date Collected: 02/04/25 10:00  
Date Received: 02/06/25 10:22

## Lab Sample ID: 380-134238-1

Matrix: Water

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

| Analyte                          | Result  | Qualifier | RL     | Unit | D              | Prepared       | Analyzed | Dil Fac |
|----------------------------------|---------|-----------|--------|------|----------------|----------------|----------|---------|
| 2,4'-DDD                         | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| 2,4'-DDE                         | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| 2,4'-DDT                         | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| 2,4-Dinitrotoluene               | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| 2,6-Dinitrotoluene               | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| 4,4'-DDD                         | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| 4,4'-DDE                         | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| 4,4'-DDT                         | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Acenaphthene                     | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Acenaphthylene                   | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Acetochlor                       | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Alachlor                         | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| alpha-BHC                        | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| alpha-Chlordane                  | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Anthracene                       | <0.019  |           | 0.019  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Atrazine                         | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Benz(a)anthracene                | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Benzo[a]pyrene                   | <0.019  |           | 0.019  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Benzo[b]fluoranthene             | <0.019  |           | 0.019  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Benzo[g,h,i]perylene             | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Benzo[k]fluoranthene             | <0.019  |           | 0.019  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| beta-BHC                         | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Bis(2-ethylhexyl) phthalate      | <0.58   |           | 0.58   | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Aldrin                           | <0.0096 |           | 0.0096 | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Bromacil                         | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Butachlor                        | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Butylbenzylphthalate             | <0.48   |           | 0.48   | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Chlorobenzilate                  | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Chloroneb                        | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Chlorothalonil (Draconil, Bravo) | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Chlorpyrifos                     | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Chrysene                         | <0.019  |           | 0.019  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| delta-BHC                        | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Di(2-ethylhexyl)adipate          | <0.58   |           | 0.58   | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Dibenz(a,h)anthracene            | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Diclorvos (DDVP)                 | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Dieldrin                         | <0.0096 |           | 0.0096 | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Diethylphthalate                 | <0.48   |           | 0.48   | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Dimethylphthalate                | <0.48   |           | 0.48   | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Di-n-butyl phthalate             | <0.96   |           | 0.96   | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Di-n-octyl phthalate             | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Endosulfan I (Alpha)             | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Endosulfan II (Beta)             | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Endosulfan sulfate               | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Endrin                           | <0.0096 |           | 0.0096 | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Endrin aldehyde                  | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| EPTC                             | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Fluoranthene                     | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Fluorene                         | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |

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# Client Sample Results

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

Job ID: 380-134238-1  
SDG: Weekly

## Client Sample ID: Halawa Shaft Viewing Pool

## Lab Sample ID: 380-134238-1

Matrix: Water

Date Collected: 02/04/25 10:00  
Date Received: 02/06/25 10:22

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

| Analyte                          | Result  | Qualifier | RL     | Unit | D              | Prepared       | Analyzed | Dil Fac |
|----------------------------------|---------|-----------|--------|------|----------------|----------------|----------|---------|
| gamma-BHC (Lindane)              | <0.0096 |           | 0.0096 | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| gamma-Chlordane                  | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Heptachlor                       | <0.0096 |           | 0.0096 | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Heptachlor epoxide (isomer B)    | <0.0096 |           | 0.0096 | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Hexachlorobenzene                | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Hexachlorocyclopentadiene        | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Indeno[1,2,3-cd]pyrene           | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Isophorone                       | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Malathion                        | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Methoxychlor                     | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Metolachlor                      | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Molinate                         | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Naphthalene                      | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Parathion                        | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Pendimethalin (Penoxaline)       | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Phenanthrene                     | <0.038  |           | 0.038  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Propachlor                       | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Pyrene                           | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Simazine                         | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Terbacil                         | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Terbutylazine                    | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Thiobencarb                      | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Total Permethrin (mixed isomers) | <0.19   |           | 0.19   | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| trans-Nonachlor                  | <0.048  |           | 0.048  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| Trifluralin                      | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| 1-Methylnaphthalene              | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |
| 2-Methylnaphthalene              | <0.096  |           | 0.096  | ug/L | 02/11/25 06:16 | 02/11/25 22:05 |          | 1       |

| Tentatively Identified Compound | Est. Result | Qualifier | Unit | D | RT | CAS No. | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-------------|-----------|------|---|----|---------|----------------|----------------|---------|
| Tentatively Identified Compound | None        |           | ug/L |   |    | N/A     | 02/11/25 06:16 | 02/11/25 22:05 | 1       |

| Surrogate          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Nitro-m-xylene   | 98        |           | 70 - 130 | 02/11/25 06:16 | 02/11/25 22:05 | 1       |
| Perylene-d12       | 96        |           | 70 - 130 | 02/11/25 06:16 | 02/11/25 22:05 | 1       |
| Triphenylphosphate | 99        |           | 70 - 130 | 02/11/25 06:16 | 02/11/25 22:05 | 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 |   |          | 02/13/25 21:23 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------|---------|
| 4-Bromofluorobenzene (Surf) | 90        |           | 38 - 134 | 02/13/25 21:23 |          | 1       |

### Method: SW846 8015B - Diesel Range Organics (DRO) (GC) Low Level

| Analyte                            | Result | Qualifier | RL | Unit | D              | Prepared       | Analyzed | Dil Fac |
|------------------------------------|--------|-----------|----|------|----------------|----------------|----------|---------|
| Diesel Range Organics (C10-C24)    | <25    |           | 25 | ug/L | 02/09/25 14:11 | 02/22/25 03:06 |          | 1       |
| Motor Oil Range Organics [C24-C36] | <25    |           | 25 | ug/L | 02/09/25 14:11 | 02/22/25 03:06 |          | 1       |
| C8-C18                             | <25    |           | 25 | ug/L | 02/09/25 14:11 | 02/22/25 03:06 |          | 1       |

| Surrogate           | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|---------------------|-----------|-----------|----------|----------------|----------------|---------|
| n-Octacosane (Surf) | 81        |           | 60 - 130 | 02/09/25 14:11 | 02/22/25 03:06 | 1       |

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# Action Limit Summary

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

Job ID: 380-134238-1  
SDG: Weekly

**Client Sample ID: Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-134238-1**

## 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 |        | Method | Prep Type |
|-------------------------------|---------|-----------|------|--------|--------|--------|-----------|
|                               |         |           |      | Limit  | RL     |        |           |
| Alachlor                      | <0.048  |           | ug/L | 2      | 0.048  | 525.2  | Total/NA  |
| Atrazine                      | <0.048  |           | ug/L | 3      | 0.048  | 525.2  | Total/NA  |
| Benzo[a]pyrene                | <0.019  |           | ug/L | 0.2    | 0.019  | 525.2  | Total/NA  |
| Bis(2-ethylhexyl) phthalate   | <0.58   |           | ug/L | 6      | 0.58   | 525.2  | Total/NA  |
| Di(2-ethylhexyl)adipate       | <0.58   |           | ug/L | 400    | 0.58   | 525.2  | Total/NA  |
| Endrin                        | <0.0096 |           | ug/L | 2      | 0.0096 | 525.2  | Total/NA  |
| gamma-BHC (Lindane)           | <0.0096 |           | ug/L | 0.2    | 0.0096 | 525.2  | Total/NA  |
| Heptachlor                    | <0.0096 |           | ug/L | 0.4    | 0.0096 | 525.2  | Total/NA  |
| Heptachlor epoxide (isomer B) | <0.0096 |           | ug/L | 0.2    | 0.0096 | 525.2  | Total/NA  |
| Hexachlorobenzene             | <0.048  |           | ug/L | 1      | 0.048  | 525.2  | Total/NA  |
| Hexachlorocyclopentadiene     | <0.048  |           | ug/L | 50     | 0.048  | 525.2  | Total/NA  |
| Methoxychlor                  | <0.048  |           | ug/L | 40     | 0.048  | 525.2  | Total/NA  |
| Simazine                      | <0.048  |           | ug/L | 4      | 0.048  | 525.2  | Total/NA  |

# Surrogate Summary

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

Job ID: 380-134238-1  
 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<br>(70-130)                               | PRY<br>(70-130) | TPP<br>(70-130) |
| 380-133875-V-4-A MSD | Matrix Spike Duplicate    | 98   | 99              | 104             |
| 380-133875-W-4-A MS  | Matrix Spike              | 98   | 98              | 102             |
| 380-134238-1         | Halawa Shaft Viewing Pool | 98   | 96              | 99              |
| LCS 380-134236/23-A  | Lab Control Sample        | 98   | 100             | 101             |
| LCSD 380-134236/24-A | Lab Control Sample Dup    | 97   | 99              | 107             |
| MB 380-134236/21-A   | Method Blank              | 97   | 94              | 101             |
| MRL 380-134236/22-A  | Lab Control Sample        | 99   | 99              | 99              |

### Surrogate Legend

2NMX = 2-Nitro-m-xylene

PRY = Perylene-d12

TPP = Triphenylphosphate

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

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID          | Percent Surrogate Recovery (Acceptance Limits) |  |  |
|--------------------|---------------------------|--|--|--|
|                    |                           | BFB1<br>(38-134)                               |  |  |
| 380-133869-B-1 MS  | Matrix Spike              | 94   |  |  |
| 380-133869-B-1 MSD | Matrix Spike Duplicate    | 95   |  |  |
| 380-134238-1       | Halawa Shaft Viewing Pool | 90   |  |  |
| LCS 570-533375/4   | Lab Control Sample        | 98   |  |  |
| LCSD 570-533375/5  | Lab Control Sample Dup    | 97   |  |  |
| MB 570-533375/6    | Method Blank              | 91   |  |  |
| MRL 570-533375/3   | Lab Control Sample        | 94   |  |  |

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID        | Client Sample ID          | Percent Surrogate Recovery (Acceptance Limits) |  |  |
|----------------------|---------------------------|--|--|--|
|                      |                           | OTCSN1<br>(60-130)                             |  |  |
| 380-133869-C-1-A MS  | Matrix Spike              | 99   |  |  |
| 380-133869-C-1-B MSD | Matrix Spike Duplicate    | 109  |  |  |
| 380-134238-1         | Halawa Shaft Viewing Pool | 81   |  |  |
| LCS 570-531752/2-A   | Lab Control Sample        | 90   |  |  |
| LCSD 570-531752/3-A  | Lab Control Sample Dup    | 102  |  |  |
| MB 570-531752/1-A    | Method Blank              | 100  |  |  |
| MRL 570-531752/4-A   | Lab Control Sample        | 83   |  |  |

### Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

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

Job ID: 380-134238-1  
 SDG: Weekly

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

**Lab Sample ID: MB 380-134236/21-A**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte                          | MB<br>Result | MB<br>Qualifier | RL     | Unit | D              | Prepared       | Analyzed | Dil Fac |
|----------------------------------|--------------|-----------------|--------|------|----------------|----------------|----------|---------|
| 2,4'-DDD                         | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| 2,4'-DDE                         | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| 2,4'-DDT                         | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| 2,4-Dinitrotoluene               | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| 2,6-Dinitrotoluene               | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| 4,4'-DDD                         | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| 4,4'-DDE                         | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| 4,4'-DDT                         | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Acenaphthene                     | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Acenaphthylene                   | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Acetochlor                       | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Alachlor                         | <0.050       |                 | 0.050  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| alpha-BHC                        | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| alpha-Chlordane                  | <0.050       |                 | 0.050  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Anthracene                       | <0.020       |                 | 0.020  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Atrazine                         | <0.050       |                 | 0.050  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Benz(a)anthracene                | <0.050       |                 | 0.050  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Benzo[a]pyrene                   | <0.020       |                 | 0.020  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Benzo[b]fluoranthene             | <0.020       |                 | 0.020  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Benzo[g,h,i]perylene             | <0.050       |                 | 0.050  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Benzo[k]fluoranthene             | <0.020       |                 | 0.020  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| beta-BHC                         | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Bis(2-ethylhexyl) phthalate      | <0.60        |                 | 0.60   | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Aldrin                           | <0.0099      |                 | 0.0099 | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Bromacil                         | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Butachlor                        | <0.050       |                 | 0.050  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Butylbenzylphthalate             | <0.50        |                 | 0.50   | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Chlorobenzilate                  | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Chloroneb                        | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Chlorothalonil (Draconil, Bravo) | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Chlorpyrifos                     | <0.050       |                 | 0.050  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Chrysene                         | <0.020       |                 | 0.020  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| delta-BHC                        | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Di(2-ethylhexyl)adipate          | <0.60        |                 | 0.60   | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Dibenz(a,h)anthracene            | <0.050       |                 | 0.050  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Diclorvos (DDVP)                 | <0.050       |                 | 0.050  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Dieldrin                         | <0.0099      |                 | 0.0099 | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Diethylphthalate                 | <0.50        |                 | 0.50   | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Dimethylphthalate                | <0.50        |                 | 0.50   | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Di-n-butyl phthalate             | <0.99        |                 | 0.99   | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Di-n-octyl phthalate             | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Endosulfan I (Alpha)             | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Endosulfan II (Beta)             | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Endosulfan sulfate               | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Endrin                           | <0.0099      |                 | 0.0099 | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Endrin aldehyde                  | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| EPTC                             | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Fluoranthene                     | <0.099       |                 | 0.099  | ug/L | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |

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# QC Sample Results

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

Job ID: 380-134238-1  
SDG: Weekly

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

**Lab Sample ID:** MB 380-134236/21-A

**Matrix:** Water

**Analysis Batch:** 134289

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 134236

| Analyte                          | MB<br>Result | MB<br>Qualifier | MB<br>RL | MB<br>Unit | D              | Prepared       | Analyzed | Dil Fac |
|----------------------------------|--------------|-----------------|----------|------------|----------------|----------------|----------|---------|
| Fluorene                         | <0.050       |                 | 0.050    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| gamma-BHC (Lindane)              | <0.0099      |                 | 0.0099   | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| gamma-Chlordane                  | <0.050       |                 | 0.050    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Heptachlor                       | <0.0099      |                 | 0.0099   | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Heptachlor epoxide (isomer B)    | <0.0099      |                 | 0.0099   | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Hexachlorobenzene                | <0.050       |                 | 0.050    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Hexachlorocyclopentadiene        | <0.050       |                 | 0.050    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Indeno[1,2,3-cd]pyrene           | <0.050       |                 | 0.050    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Isophorone                       | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Malathion                        | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Methoxychlor                     | <0.050       |                 | 0.050    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Metolachlor                      | <0.050       |                 | 0.050    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Molinate                         | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Naphthalene                      | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Parathion                        | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Pendimethalin (Penoxaline)       | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Phenanthrene                     | <0.040       |                 | 0.040    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Propachlor                       | <0.050       |                 | 0.050    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Pyrene                           | <0.050       |                 | 0.050    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Simazine                         | <0.050       |                 | 0.050    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Terbacil                         | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Terbutylazine                    | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Thiobencarb                      | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Total Permethrin (mixed isomers) | <0.20        |                 | 0.20     | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| trans-Nonachlor                  | <0.050       |                 | 0.050    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| Trifluralin                      | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| 1-Methylnaphthalene              | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |
| 2-Methylnaphthalene              | <0.099       |                 | 0.099    | ug/L       | 02/11/25 06:16 | 02/11/25 17:23 |          | 1       |

| Tentatively Identified Compound | MB<br>Est. Result | MB<br>Qualifier | MB<br>Unit | D | RT | CAS No. | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-------------------|-----------------|------------|---|----|---------|----------------|----------------|---------|
| Tentatively Identified Compound | None              |                 | ug/L       |   |    | N/A     | 02/11/25 06:16 | 02/11/25 17:23 | 1       |

| Surrogate          | MB<br>%Recovery | MB<br>Qualifier | MB<br>Limits | Prepared       | Analyzed       | Dil Fac |
|--------------------|-----------------|-----------------|--------------|----------------|----------------|---------|
| 2-Nitro-m-xylene   | 97              |                 | 70 - 130     | 02/11/25 06:16 | 02/11/25 17:23 | 1       |
| Perylene-d12       | 94              |                 | 70 - 130     | 02/11/25 06:16 | 02/11/25 17:23 | 1       |
| Triphenylphosphate | 101             |                 | 70 - 130     | 02/11/25 06:16 | 02/11/25 17:23 | 1       |

**Lab Sample ID:** LCS 380-134236/23-A

**Matrix:** Water

**Analysis Batch:** 134289

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 134236

| Analyte            | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | Limits   |
|--------------------|----------------|---------------|------------------|------|---|------|----------|
| 2,4'-DDD           | 1.98           | 2.08          |                  | ug/L |   | 105  | 70 - 130 |
| 2,4'-DDE           | 1.98           | 2.05          |                  | ug/L |   | 104  | 70 - 130 |
| 2,4'-DDT           | 1.98           | 2.11          |                  | ug/L |   | 107  | 70 - 130 |
| 2,4-Dinitrotoluene | 1.98           | 1.95          |                  | ug/L |   | 99   | 70 - 130 |
| 2,6-Dinitrotoluene | 1.98           | 1.94          |                  | ug/L |   | 98   | 70 - 130 |
| 4,4'-DDD           | 1.98           | 2.10          |                  | ug/L |   | 106  | 70 - 130 |

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-134238-1  
 SDG: Weekly

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

**Lab Sample ID: LCS 380-134236/23-A**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte                          | Spike Added | LCS Result | LCS Qualifier | Unit | D   | %Rec     | Limits |
|----------------------------------|-------------|------------|---------------|------|-----|----------|--------|
| 4,4'-DDE                         | 1.98        | 2.00       |               | ug/L | 101 | 70 - 130 |        |
| 4,4'-DDT                         | 1.98        | 2.12       |               | ug/L | 108 | 70 - 130 |        |
| Acenaphthene                     | 1.98        | 1.93       |               | ug/L | 98  | 70 - 130 |        |
| Acenaphthylene                   | 1.98        | 2.06       |               | ug/L | 104 | 70 - 130 |        |
| Acetochlor                       | 1.98        | 2.16       |               | ug/L | 109 | 70 - 130 |        |
| Alachlor                         | 1.98        | 2.17       |               | ug/L | 110 | 70 - 130 |        |
| alpha-BHC                        | 1.98        | 2.03       |               | ug/L | 103 | 70 - 130 |        |
| alpha-Chlordane                  | 1.98        | 2.07       |               | ug/L | 105 | 70 - 130 |        |
| Anthracene                       | 1.98        | 1.92       |               | ug/L | 97  | 70 - 130 |        |
| Atrazine                         | 1.98        | 2.16       |               | ug/L | 109 | 70 - 130 |        |
| Benz(a)anthracene                | 1.98        | 1.94       |               | ug/L | 98  | 70 - 130 |        |
| Benzo[a]pyrene                   | 1.98        | 1.94       |               | ug/L | 98  | 70 - 130 |        |
| Benzo[b]fluoranthene             | 1.98        | 2.10       |               | ug/L | 106 | 70 - 130 |        |
| Benzo[g,h,i]perylene             | 1.98        | 2.19       |               | ug/L | 111 | 70 - 130 |        |
| Benzo[k]fluoranthene             | 1.98        | 2.19       |               | ug/L | 111 | 70 - 130 |        |
| beta-BHC                         | 1.98        | 2.05       |               | ug/L | 104 | 70 - 130 |        |
| Bis(2-ethylhexyl) phthalate      | 1.98        | 2.10       |               | ug/L | 107 | 70 - 130 |        |
| Aldrin                           | 1.98        | 1.92       |               | ug/L | 97  | 70 - 130 |        |
| Bromacil                         | 1.98        | 2.09       |               | ug/L | 106 | 70 - 130 |        |
| Butachlor                        | 1.98        | 2.27       |               | ug/L | 115 | 70 - 130 |        |
| Butylbenzylphthalate             | 1.98        | 2.28       |               | ug/L | 115 | 70 - 130 |        |
| Chlorobenzilate                  | 1.98        | 2.05       |               | ug/L | 104 | 70 - 130 |        |
| Chloroneb                        | 1.98        | 1.92       |               | ug/L | 97  | 70 - 130 |        |
| Chlorothalonil (Draconil, Bravo) | 1.98        | 2.03       |               | ug/L | 103 | 70 - 130 |        |
| Chlorpyrifos                     | 1.98        | 2.17       |               | ug/L | 110 | 70 - 130 |        |
| Chrysene                         | 1.98        | 1.99       |               | ug/L | 101 | 70 - 130 |        |
| delta-BHC                        | 1.98        | 2.06       |               | ug/L | 104 | 70 - 130 |        |
| Di(2-ethylhexyl)adipate          | 1.98        | 1.99       |               | ug/L | 101 | 70 - 130 |        |
| Dibenz(a,h)anthracene            | 1.98        | 1.95       |               | ug/L | 99  | 70 - 130 |        |
| Diclorvos (DDVP)                 | 1.98        | 2.05       |               | ug/L | 104 | 70 - 130 |        |
| Dieldrin                         | 1.98        | 2.13       |               | ug/L | 108 | 70 - 130 |        |
| Diethylphthalate                 | 1.98        | 2.11       |               | ug/L | 107 | 70 - 130 |        |
| Dimethylphthalate                | 1.98        | 2.12       |               | ug/L | 107 | 70 - 130 |        |
| Di-n-butyl phthalate             | 3.95        | 4.32       |               | ug/L | 109 | 70 - 130 |        |
| Di-n-octyl phthalate             | 1.98        | 1.81       |               | ug/L | 92  | 70 - 130 |        |
| Endosulfan I (Alpha)             | 1.98        | 1.98       |               | ug/L | 100 | 70 - 130 |        |
| Endosulfan II (Beta)             | 1.98        | 2.06       |               | ug/L | 104 | 70 - 130 |        |
| Endosulfan sulfate               | 1.98        | 2.09       |               | ug/L | 106 | 70 - 130 |        |
| Endrin                           | 1.98        | 1.98       |               | ug/L | 100 | 70 - 130 |        |
| Endrin aldehyde                  | 1.98        | 2.03       |               | ug/L | 103 | 60 - 130 |        |
| EPTC                             | 1.98        | 2.08       |               | ug/L | 105 | 70 - 130 |        |
| Fluoranthene                     | 1.98        | 2.12       |               | ug/L | 107 | 70 - 130 |        |
| Fluorene                         | 1.98        | 2.08       |               | ug/L | 105 | 70 - 130 |        |
| gamma-BHC (Lindane)              | 1.98        | 1.88       |               | ug/L | 95  | 70 - 130 |        |
| gamma-Chlordane                  | 1.98        | 2.07       |               | ug/L | 105 | 70 - 130 |        |
| Heptachlor                       | 1.98        | 2.03       |               | ug/L | 103 | 70 - 130 |        |
| Heptachlor epoxide (isomer B)    | 1.98        | 2.06       |               | ug/L | 104 | 70 - 130 |        |
| Hexachlorobenzene                | 1.98        | 1.86       |               | ug/L | 94  | 70 - 130 |        |
| Hexachlorocyclopentadiene        | 1.98        | 1.83       |               | ug/L | 92  | 70 - 130 |        |

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-134238-1  
 SDG: Weekly

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

**Lab Sample ID: LCS 380-134236/23-A**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte                    | Spike Added | LCS Result | LCS Qualifier | Unit | D   | %Rec     | %Rec Limits |
|----------------------------|-------------|------------|---------------|------|-----|----------|-------------|
| Indeno[1,2,3-cd]pyrene     | 1.98        | 2.18       |               | ug/L | 111 | 70 - 130 |             |
| Isophorone                 | 1.98        | 2.00       |               | ug/L | 101 | 70 - 130 |             |
| Malathion                  | 1.98        | 2.16       |               | ug/L | 109 | 70 - 130 |             |
| Methoxychlor               | 1.98        | 1.96       |               | ug/L | 99  | 70 - 130 |             |
| Metolachlor                | 1.98        | 2.17       |               | ug/L | 110 | 70 - 130 |             |
| Molinate                   | 1.98        | 2.08       |               | ug/L | 105 | 70 - 130 |             |
| Naphthalene                | 1.98        | 1.98       |               | ug/L | 100 | 70 - 130 |             |
| Parathion                  | 1.98        | 2.11       |               | ug/L | 107 | 70 - 130 |             |
| Pendimethalin (Penoxaline) | 1.98        | 1.99       |               | ug/L | 101 | 70 - 130 |             |
| Phenanthrene               | 1.98        | 1.92       |               | ug/L | 97  | 70 - 130 |             |
| Propachlor                 | 1.98        | 2.10       |               | ug/L | 106 | 70 - 130 |             |
| Pyrene                     | 1.98        | 2.09       |               | ug/L | 106 | 70 - 130 |             |
| Simazine                   | 1.98        | 2.17       |               | ug/L | 110 | 70 - 130 |             |
| Terbacil                   | 1.98        | 2.16       |               | ug/L | 109 | 70 - 130 |             |
| Terbutylazine              | 1.98        | 2.17       |               | ug/L | 110 | 70 - 130 |             |
| Thiobencarb                | 1.98        | 2.19       |               | ug/L | 111 | 70 - 130 |             |
| trans-Nonachlor            | 1.98        | 2.06       |               | ug/L | 104 | 70 - 130 |             |
| Trifluralin                | 1.98        | 1.91       |               | ug/L | 97  | 70 - 130 |             |
| 1-Methylnaphthalene        | 1.98        | 2.01       |               | ug/L | 102 | 70 - 130 |             |
| 2-Methylnaphthalene        | 1.98        | 2.01       |               | ug/L | 102 | 70 - 130 |             |

| Surrogate          | LCS %Recovery | LCS Qualifier | Limits   |
|--------------------|---------------|---------------|----------|
| 2-Nitro-m-xylene   | 98            |               | 70 - 130 |
| Perylene-d12       | 100           |               | 70 - 130 |
| Triphenylphosphate | 101           |               | 70 - 130 |

**Lab Sample ID: LCSD 380-134236/24-A**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte            | Spike Added | LCSD Result | LCSD Qualifier | Unit | D   | %Rec     | %Rec Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|------|-----|----------|-------------|-----|-----------|
| 2,4'-DDD           | 1.98        | 2.14        |                | ug/L | 108 | 70 - 130 |             | 3   | 20        |
| 2,4'-DDE           | 1.98        | 2.06        |                | ug/L | 104 | 70 - 130 |             | 1   | 20        |
| 2,4'-DDT           | 1.98        | 2.16        |                | ug/L | 109 | 70 - 130 |             | 2   | 20        |
| 2,4-Dinitrotoluene | 1.98        | 1.95        |                | ug/L | 98  | 70 - 130 |             | 0   | 20        |
| 2,6-Dinitrotoluene | 1.98        | 1.90        |                | ug/L | 96  | 70 - 130 |             | 2   | 20        |
| 4,4'-DDD           | 1.98        | 2.18        |                | ug/L | 110 | 70 - 130 |             | 4   | 20        |
| 4,4'-DDE           | 1.98        | 2.05        |                | ug/L | 104 | 70 - 130 |             | 3   | 20        |
| 4,4'-DDT           | 1.98        | 2.18        |                | ug/L | 110 | 70 - 130 |             | 2   | 20        |
| Acenaphthene       | 1.98        | 1.92        |                | ug/L | 97  | 70 - 130 |             | 1   | 20        |
| Acenaphthylene     | 1.98        | 2.12        |                | ug/L | 107 | 70 - 130 |             | 3   | 20        |
| Acetochlor         | 1.98        | 2.16        |                | ug/L | 109 | 70 - 130 |             | 0   | 20        |
| Alachlor           | 1.98        | 2.18        |                | ug/L | 110 | 70 - 130 |             | 0   | 20        |
| alpha-BHC          | 1.98        | 2.02        |                | ug/L | 102 | 70 - 130 |             | 0   | 20        |
| alpha-Chlordane    | 1.98        | 2.11        |                | ug/L | 106 | 70 - 130 |             | 2   | 20        |
| Anthracene         | 1.98        | 1.95        |                | ug/L | 98  | 70 - 130 |             | 2   | 20        |
| Atrazine           | 1.98        | 2.21        |                | ug/L | 111 | 70 - 130 |             | 2   | 20        |
| Benz(a)anthracene  | 1.98        | 2.03        |                | ug/L | 102 | 70 - 130 |             | 4   | 20        |

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-134238-1  
 SDG: Weekly

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

**Lab Sample ID: LCSD 380-134236/24-A**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte                          | Spike Added | LCSD Result | LCSD Qualifier | Unit | D   | %Rec     | %Rec Limits | RPD | RPD Limit |
|----------------------------------|-------------|-------------|----------------|------|-----|----------|-------------|-----|-----------|
| Benzo[a]pyrene                   | 1.98        | 1.94        |                | ug/L | 98  | 70 - 130 |             | 0   | 20        |
| Benzo[b]fluoranthene             | 1.98        | 2.15        |                | ug/L | 109 | 70 - 130 |             | 3   | 20        |
| Benzo[g,h,i]perylene             | 1.98        | 2.09        |                | ug/L | 105 | 70 - 130 |             | 5   | 20        |
| Benzo[k]fluoranthene             | 1.98        | 2.11        |                | ug/L | 107 | 70 - 130 |             | 4   | 20        |
| beta-BHC                         | 1.98        | 2.06        |                | ug/L | 104 | 70 - 130 |             | 0   | 20        |
| Bis(2-ethylhexyl) phthalate      | 1.98        | 2.04        |                | ug/L | 103 | 70 - 130 |             | 3   | 20        |
| Aldrin                           | 1.98        | 1.93        |                | ug/L | 97  | 70 - 130 |             | 0   | 20        |
| Bromacil                         | 1.98        | 2.17        |                | ug/L | 109 | 70 - 130 |             | 4   | 20        |
| Butachlor                        | 1.98        | 2.32        |                | ug/L | 117 | 70 - 130 |             | 2   | 20        |
| Butylbenzylphthalate             | 1.98        | 2.42        |                | ug/L | 122 | 70 - 130 |             | 6   | 20        |
| Chlorobenzilate                  | 1.98        | 2.11        |                | ug/L | 107 | 70 - 130 |             | 3   | 20        |
| Chloroneb                        | 1.98        | 1.91        |                | ug/L | 96  | 70 - 130 |             | 0   | 20        |
| Chlorothalonil (Draconil, Bravo) | 1.98        | 2.19        |                | ug/L | 111 | 70 - 130 |             | 8   | 20        |
| Chlorpyrifos                     | 1.98        | 2.21        |                | ug/L | 111 | 70 - 130 |             | 2   | 20        |
| Chrysene                         | 1.98        | 2.02        |                | ug/L | 102 | 70 - 130 |             | 1   | 20        |
| delta-BHC                        | 1.98        | 2.08        |                | ug/L | 105 | 70 - 130 |             | 1   | 20        |
| Di(2-ethylhexyl)adipate          | 1.98        | 2.02        |                | ug/L | 102 | 70 - 130 |             | 2   | 20        |
| Dibenz(a,h)anthracene            | 1.98        | 1.87        |                | ug/L | 94  | 70 - 130 |             | 4   | 20        |
| Diclorvos (DDVP)                 | 1.98        | 2.08        |                | ug/L | 105 | 70 - 130 |             | 2   | 20        |
| Dieldrin                         | 1.98        | 2.02        |                | ug/L | 102 | 70 - 130 |             | 6   | 20        |
| Diethylphthalate                 | 1.98        | 2.14        |                | ug/L | 108 | 70 - 130 |             | 2   | 20        |
| Dimethylphthalate                | 1.98        | 2.11        |                | ug/L | 106 | 70 - 130 |             | 0   | 20        |
| Di-n-butyl phthalate             | 3.97        | 4.28        |                | ug/L | 108 | 70 - 130 |             | 1   | 20        |
| Di-n-octyl phthalate             | 1.98        | 1.76        |                | ug/L | 89  | 70 - 130 |             | 2   | 20        |
| Endosulfan I (Alpha)             | 1.98        | 1.98        |                | ug/L | 100 | 70 - 130 |             | 0   | 20        |
| Endosulfan II (Beta)             | 1.98        | 2.08        |                | ug/L | 105 | 70 - 130 |             | 1   | 20        |
| Endosulfan sulfate               | 1.98        | 2.16        |                | ug/L | 109 | 70 - 130 |             | 3   | 20        |
| Endrin                           | 1.98        | 2.02        |                | ug/L | 102 | 70 - 130 |             | 2   | 20        |
| Endrin aldehyde                  | 1.98        | 2.07        |                | ug/L | 104 | 60 - 130 |             | 2   | 20        |
| EPTC                             | 1.98        | 2.07        |                | ug/L | 105 | 70 - 130 |             | 0   | 20        |
| Fluoranthene                     | 1.98        | 2.17        |                | ug/L | 109 | 70 - 130 |             | 2   | 20        |
| Fluorene                         | 1.98        | 2.10        |                | ug/L | 106 | 70 - 130 |             | 1   | 20        |
| gamma-BHC (Lindane)              | 1.98        | 1.85        |                | ug/L | 93  | 70 - 130 |             | 2   | 20        |
| gamma-Chlordane                  | 1.98        | 2.04        |                | ug/L | 103 | 70 - 130 |             | 1   | 20        |
| Heptachlor                       | 1.98        | 2.05        |                | ug/L | 103 | 70 - 130 |             | 1   | 20        |
| Heptachlor epoxide (isomer B)    | 1.98        | 2.02        |                | ug/L | 102 | 70 - 130 |             | 2   | 20        |
| Hexachlorobenzene                | 1.98        | 1.90        |                | ug/L | 96  | 70 - 130 |             | 2   | 20        |
| Hexachlorocyclopentadiene        | 1.98        | 1.87        |                | ug/L | 94  | 70 - 130 |             | 2   | 20        |
| Indeno[1,2,3-cd]pyrene           | 1.98        | 2.17        |                | ug/L | 109 | 70 - 130 |             | 1   | 20        |
| Isophorone                       | 1.98        | 1.98        |                | ug/L | 100 | 70 - 130 |             | 1   | 20        |
| Malathion                        | 1.98        | 2.24        |                | ug/L | 113 | 70 - 130 |             | 4   | 20        |
| Methoxychlor                     | 1.98        | 2.01        |                | ug/L | 101 | 70 - 130 |             | 3   | 20        |
| Metolachlor                      | 1.98        | 2.18        |                | ug/L | 110 | 70 - 130 |             | 0   | 20        |
| Molinate                         | 1.98        | 2.10        |                | ug/L | 106 | 70 - 130 |             | 1   | 20        |
| Naphthalene                      | 1.98        | 1.96        |                | ug/L | 99  | 70 - 130 |             | 1   | 20        |
| Parathion                        | 1.98        | 2.19        |                | ug/L | 111 | 70 - 130 |             | 4   | 20        |
| Pendimethalin (Penoxaline)       | 1.98        | 2.07        |                | ug/L | 104 | 70 - 130 |             | 4   | 20        |
| Phenanthrene                     | 1.98        | 1.96        |                | ug/L | 99  | 70 - 130 |             | 2   | 20        |
| Propachlor                       | 1.98        | 2.12        |                | ug/L | 107 | 70 - 130 |             | 1   | 20        |

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# QC Sample Results

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

Job ID: 380-134238-1  
 SDG: Weekly

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

**Lab Sample ID: LCSD 380-134236/24-A**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte             | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | Limits   | RPD | RPD Limit |
|---------------------|-------------|-------------|----------------|------|---|------|----------|-----|-----------|
| Pyrene              | 1.98        | 2.16        |                | ug/L |   | 109  | 70 - 130 | 3   | 20        |
| Simazine            | 1.98        | 2.17        |                | ug/L |   | 110  | 70 - 130 | 0   | 20        |
| Terbacil            | 1.98        | 2.28        |                | ug/L |   | 115  | 70 - 130 | 5   | 20        |
| Terbutylazine       | 1.98        | 2.19        |                | ug/L |   | 110  | 70 - 130 | 1   | 20        |
| Thiobencarb         | 1.98        | 2.23        |                | ug/L |   | 112  | 70 - 130 | 2   | 20        |
| trans-Nonachlor     | 1.98        | 2.04        |                | ug/L |   | 103  | 70 - 130 | 1   | 20        |
| Trifluralin         | 1.98        | 1.90        |                | ug/L |   | 96   | 70 - 130 | 1   | 20        |
| 1-Methylnaphthalene | 1.98        | 1.99        |                | ug/L |   | 100  | 70 - 130 | 1   | 20        |
| 2-Methylnaphthalene | 1.98        | 2.00        |                | ug/L |   | 101  | 70 - 130 | 0   | 20        |

| Surrogate          | LCSD      | LCSD      | Limits   |
|--------------------|-----------|-----------|----------|
|                    | %Recovery | Qualifier |          |
| 2-Nitro-m-xylene   | 97        |           | 70 - 130 |
| Perylene-d12       | 99        |           | 70 - 130 |
| Triphenylphosphate | 107       |           | 70 - 130 |

**Lab Sample ID: MRL 380-134236/22-A**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte                     | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | Limits   |
|-----------------------------|-------------|------------|---------------|------|---|------|----------|
| 2,4'-DDD                    | 0.0991      | 0.0939     | J             | ug/L |   | 95   | 50 - 150 |
| 2,4'-DDE                    | 0.0991      | 0.102      |               | ug/L |   | 103  | 50 - 150 |
| 2,4'-DDT                    | 0.0991      | 0.103      |               | ug/L |   | 104  | 50 - 150 |
| 2,4-Dinitrotoluene          | 0.0991      | 0.113      |               | ug/L |   | 114  | 50 - 150 |
| 2,6-Dinitrotoluene          | 0.0991      | 0.110      |               | ug/L |   | 111  | 50 - 150 |
| 4,4'-DDD                    | 0.0991      | 0.109      |               | ug/L |   | 110  | 50 - 150 |
| 4,4'-DDE                    | 0.0991      | 0.101      |               | ug/L |   | 102  | 50 - 150 |
| 4,4'-DDT                    | 0.0991      | 0.101      |               | ug/L |   | 102  | 50 - 150 |
| Acenaphthene                | 0.0991      | 0.100      |               | ug/L |   | 101  | 50 - 150 |
| Acenaphthylene              | 0.0991      | 0.102      |               | ug/L |   | 103  | 50 - 150 |
| Acetochlor                  | 0.0991      | 0.117      |               | ug/L |   | 118  | 50 - 150 |
| Alachlor                    | 0.0496      | 0.0547     |               | ug/L |   | 110  | 50 - 150 |
| alpha-BHC                   | 0.0991      | 0.108      |               | ug/L |   | 109  | 50 - 150 |
| alpha-Chlordane             | 0.0248      | <0.029     |               | ug/L |   | 95   | 50 - 150 |
| Anthracene                  | 0.0198      | 0.0222     |               | ug/L |   | 112  | 50 - 150 |
| Atrazine                    | 0.0496      | 0.0524     |               | ug/L |   | 106  | 50 - 150 |
| Benz(a)anthracene           | 0.0496      | 0.0525     |               | ug/L |   | 106  | 50 - 150 |
| Benzo[a]pyrene              | 0.0198      | 0.0243     |               | ug/L |   | 123  | 50 - 150 |
| Benzo[b]fluoranthene        | 0.0198      | 0.0188     | J             | ug/L |   | 95   | 50 - 150 |
| Benzo[g,h,i]perylene        | 0.0496      | 0.0407     | J             | ug/L |   | 82   | 50 - 150 |
| Benzo[k]fluoranthene        | 0.0198      | 0.0186     | J             | ug/L |   | 94   | 50 - 150 |
| beta-BHC                    | 0.0991      | 0.116      |               | ug/L |   | 117  | 50 - 150 |
| Bis(2-ethylhexyl) phthalate | 0.595       | 0.563      | J             | ug/L |   | 95   | 50 - 150 |
| Aldrin                      | 0.00991     | <0.0099    |               | ug/L |   | 99   | 50 - 150 |
| Bromacil                    | 0.0991      | 0.106      |               | ug/L |   | 107  | 50 - 150 |
| Butachlor                   | 0.0496      | 0.0603     |               | ug/L |   | 122  | 50 - 150 |
| Butylbenzylphthalate        | 0.496       | 0.553      |               | ug/L |   | 112  | 50 - 150 |
| Chlorobenzilate             | 0.0991      | 0.105      |               | ug/L |   | 106  | 50 - 150 |

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-134238-1  
 SDG: Weekly

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

**Lab Sample ID: MRL 380-134236/22-A**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte                          | Spike Added | MRL Result | MRL Qualifier | Unit | D   | %Rec     | %Rec Limits |
|----------------------------------|-------------|------------|---------------|------|-----|----------|-------------|
| Chloroneb                        | 0.0991      | 0.0864     | J             | ug/L | 87  | 50 - 150 |             |
| Chlorothalonil (Draconil, Bravo) | 0.0991      | 0.0880     | J             | ug/L | 89  | 50 - 150 |             |
| Chlorpyrifos                     | 0.0496      | 0.0539     |               | ug/L | 109 | 50 - 150 |             |
| Chrysene                         | 0.0198      | 0.0218     |               | ug/L | 110 | 50 - 150 |             |
| delta-BHC                        | 0.0991      | 0.129      |               | ug/L | 130 | 50 - 150 |             |
| Di(2-ethylhexyl)adipate          | 0.595       | 0.605      |               | ug/L | 102 | 50 - 150 |             |
| Dibenz(a,h)anthracene            | 0.0496      | 0.0503     |               | ug/L | 102 | 50 - 150 |             |
| Diclorvos (DDVP)                 | 0.0496      | 0.0600     |               | ug/L | 121 | 50 - 150 |             |
| Dieldrin                         | 0.00991     | 0.0119     |               | ug/L | 120 | 50 - 150 |             |
| Diethylphthalate                 | 0.496       | 0.540      |               | ug/L | 109 | 50 - 150 |             |
| Dimethylphthalate                | 0.496       | 0.539      |               | ug/L | 109 | 50 - 150 |             |
| Di-n-butyl phthalate             | 0.496       | 0.572      | J             | ug/L | 115 | 49 - 243 |             |
| Di-n-octyl phthalate             | 0.0991      | 0.0928     | J             | ug/L | 94  | 50 - 150 |             |
| Endosulfan I (Alpha)             | 0.0991      | 0.0868     | J             | ug/L | 88  | 50 - 150 |             |
| Endosulfan II (Beta)             | 0.0991      | 0.116      |               | ug/L | 117 | 50 - 150 |             |
| Endosulfan sulfate               | 0.0991      | 0.111      |               | ug/L | 112 | 50 - 150 |             |
| Endrin                           | 0.00991     | 0.0133     |               | ug/L | 135 | 50 - 150 |             |
| Endrin aldehyde                  | 0.0991      | 0.0993     |               | ug/L | 100 | 50 - 150 |             |
| EPTC                             | 0.0991      | 0.100      |               | ug/L | 101 | 50 - 150 |             |
| Fluoranthene                     | 0.0991      | 0.105      |               | ug/L | 106 | 50 - 150 |             |
| Fluorene                         | 0.0496      | 0.0526     |               | ug/L | 106 | 50 - 150 |             |
| gamma-BHC (Lindane)              | 0.00991     | 0.0142     |               | ug/L | 143 | 50 - 150 |             |
| gamma-Chlordane                  | 0.0248      | 0.0233     | J             | ug/L | 94  | 50 - 150 |             |
| Heptachlor                       | 0.00991     | 0.0123     |               | ug/L | 124 | 50 - 150 |             |
| Heptachlor epoxide (isomer B)    | 0.00991     | 0.0118     |               | ug/L | 119 | 50 - 150 |             |
| Hexachlorobenzene                | 0.0496      | 0.0496     | J             | ug/L | 100 | 50 - 150 |             |
| Hexachlorocyclopentadiene        | 0.0496      | 0.0450     | J             | ug/L | 91  | 50 - 150 |             |
| Indeno[1,2,3-cd]pyrene           | 0.0496      | 0.0421     | J             | ug/L | 85  | 50 - 150 |             |
| Isophorone                       | 0.0991      | 0.118      |               | ug/L | 120 | 50 - 150 |             |
| Malathion                        | 0.0991      | 0.0933     | J             | ug/L | 94  | 50 - 150 |             |
| Methoxychlor                     | 0.0496      | 0.0556     |               | ug/L | 112 | 50 - 150 |             |
| Metolachlor                      | 0.0496      | 0.0573     |               | ug/L | 116 | 50 - 150 |             |
| Molinate                         | 0.0991      | 0.104      |               | ug/L | 105 | 50 - 150 |             |
| Naphthalene                      | 0.0991      | 0.113      |               | ug/L | 114 | 50 - 150 |             |
| Parathion                        | 0.0991      | 0.0841     | J             | ug/L | 85  | 50 - 150 |             |
| Pendimethalin (Penoxaline)       | 0.0991      | 0.0956     | J             | ug/L | 96  | 50 - 150 |             |
| Phenanthrene                     | 0.0396      | 0.0441     |               | ug/L | 111 | 50 - 150 |             |
| Propachlor                       | 0.0496      | 0.0541     |               | ug/L | 109 | 50 - 150 |             |
| Pyrene                           | 0.0496      | 0.0507     |               | ug/L | 102 | 50 - 150 |             |
| Simazine                         | 0.0496      | 0.0541     |               | ug/L | 109 | 50 - 150 |             |
| Terbacil                         | 0.0991      | 0.0955     | J             | ug/L | 96  | 50 - 150 |             |
| Terbutylazine                    | 0.0991      | 0.105      |               | ug/L | 106 | 50 - 150 |             |
| Thiobencarb                      | 0.0991      | 0.101      |               | ug/L | 102 | 50 - 150 |             |
| trans-Nonachlor                  | 0.0248      | 0.0260     | J             | ug/L | 105 | 50 - 150 |             |
| Trifluralin                      | 0.0991      | 0.100      |               | ug/L | 101 | 50 - 150 |             |
| 1-Methylnaphthalene              | 0.0991      | 0.119      |               | ug/L | 120 | 50 - 150 |             |
| 2-Methylnaphthalene              | 0.0991      | 0.111      |               | ug/L | 112 | 50 - 150 |             |

# QC Sample Results

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

Job ID: 380-134238-1  
 SDG: Weekly

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

**Lab Sample ID: MRL 380-134236/22-A**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Surrogate          | MRL<br>%Recovery | MRL<br>Qualifier | Limits   |
|--------------------|------------------|------------------|----------|
| 2-Nitro-m-xylene   | 99               |                  | 70 - 130 |
| Perylene-d12       | 99               |                  | 70 - 130 |
| Triphenylphosphate | 99               |                  | 70 - 130 |

**Lab Sample ID: 380-133875-V-4-A MSD**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte                          | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit | D   | %Rec     | Limits | RPD | Limit |
|----------------------------------|------------------|---------------------|----------------|---------------|------------------|------|-----|----------|--------|-----|-------|
| 2,4'-DDD                         | <0.099           |                     | 1.96           | 2.07          |                  | ug/L | 105 | 70 - 130 |        | 1   | 20    |
| 2,4'-DDE                         | <0.099           |                     | 1.96           | 2.03          |                  | ug/L | 103 | 70 - 130 |        | 1   | 20    |
| 2,4'-DDT                         | <0.099           |                     | 1.96           | 2.10          |                  | ug/L | 107 | 70 - 130 |        | 1   | 20    |
| 2,4-Dinitrotoluene               | <0.099           |                     | 1.96           | 2.02          |                  | ug/L | 103 | 70 - 130 | 11     | 20  |       |
| 2,6-Dinitrotoluene               | <0.099           |                     | 1.96           | 2.00          |                  | ug/L | 102 | 70 - 130 | 11     | 20  |       |
| 4,4'-DDD                         | <0.099           |                     | 1.96           | 2.09          |                  | ug/L | 106 | 70 - 130 |        | 1   | 20    |
| 4,4'-DDE                         | <0.099           |                     | 1.96           | 2.01          |                  | ug/L | 102 | 70 - 130 | 2      | 20  |       |
| 4,4'-DDT                         | <0.099           |                     | 1.96           | 2.13          |                  | ug/L | 109 | 70 - 130 | 4      | 20  |       |
| Acenaphthene                     | <0.099           |                     | 1.96           | 1.91          |                  | ug/L | 98  | 70 - 130 | 0      | 20  |       |
| Acenaphthylene                   | <0.099           |                     | 1.96           | 2.12          |                  | ug/L | 108 | 70 - 130 | 0      | 20  |       |
| Acetochlor                       | <0.099           |                     | 1.96           | 2.11          |                  | ug/L | 108 | 70 - 130 | 1      | 20  |       |
| Alachlor                         | <0.049           |                     | 1.96           | 2.14          |                  | ug/L | 109 | 70 - 130 | 2      | 20  |       |
| alpha-BHC                        | <0.099           |                     | 1.96           | 2.04          |                  | ug/L | 104 | 70 - 130 | 1      | 20  |       |
| alpha-Chlordane                  | <0.049           |                     | 1.96           | 2.03          |                  | ug/L | 104 | 70 - 130 | 1      | 20  |       |
| Anthracene                       | <0.020           |                     | 1.96           | 1.80          |                  | ug/L | 92  | 70 - 130 | 12     | 20  |       |
| Atrazine                         | <0.049           |                     | 1.96           | 2.27          |                  | ug/L | 116 | 70 - 130 | 4      | 20  |       |
| Benz(a)anthracene                | <0.049           |                     | 1.96           | 1.97          |                  | ug/L | 101 | 70 - 130 | 3      | 20  |       |
| Benzo[a]pyrene                   | <0.020           |                     | 1.96           | 1.92          |                  | ug/L | 98  | 70 - 130 | 5      | 20  |       |
| Benzo[b]fluoranthene             | <0.020           |                     | 1.96           | 2.08          |                  | ug/L | 106 | 70 - 130 | 2      | 20  |       |
| Benzo[g,h,i]perylene             | <0.049           |                     | 1.96           | 2.06          |                  | ug/L | 105 | 70 - 130 | 0      | 20  |       |
| Benzo[k]fluoranthene             | <0.020           |                     | 1.96           | 2.16          |                  | ug/L | 110 | 70 - 130 | 4      | 20  |       |
| beta-BHC                         | <0.099           |                     | 1.96           | 2.03          |                  | ug/L | 103 | 70 - 130 | 1      | 20  |       |
| Bis(2-ethylhexyl) phthalate      | <0.59            |                     | 1.96           | 2.03          |                  | ug/L | 104 | 70 - 130 | 6      | 20  |       |
| Aldrin                           | <0.0099          |                     | 1.96           | 1.87          |                  | ug/L | 95  | 70 - 130 | 2      | 20  |       |
| Bromacil                         | <0.099           |                     | 1.96           | 2.16          |                  | ug/L | 110 | 70 - 130 | 9      | 20  |       |
| Butachlor                        | <0.049           |                     | 1.96           | 2.23          |                  | ug/L | 114 | 70 - 130 | 1      | 20  |       |
| Butylbenzylphthalate             | <0.49            |                     | 1.96           | 2.35          |                  | ug/L | 120 | 70 - 130 | 0      | 20  |       |
| Chlorobenzilate                  | <0.099           |                     | 1.96           | 2.04          |                  | ug/L | 104 | 70 - 130 | 1      | 20  |       |
| Chloroneb                        | <0.099           |                     | 1.96           | 1.94          |                  | ug/L | 99  | 70 - 130 | 0      | 20  |       |
| Chlorothalonil (Draconil, Bravo) | <0.099           |                     | 1.96           | 2.18          |                  | ug/L | 111 | 70 - 130 | 2      | 20  |       |
| Chlorpyrifos                     | <0.049           |                     | 1.96           | 2.17          |                  | ug/L | 111 | 70 - 130 | 1      | 20  |       |
| Chrysene                         | <0.020           |                     | 1.96           | 1.99          |                  | ug/L | 102 | 70 - 130 | 1      | 20  |       |
| delta-BHC                        | <0.099           |                     | 1.96           | 2.03          |                  | ug/L | 104 | 70 - 130 | 0      | 20  |       |
| Di(2-ethylhexyl)adipate          | <0.59            |                     | 1.96           | 2.04          |                  | ug/L | 104 | 70 - 130 | 8      | 20  |       |
| Dibenz(a,h)anthracene            | <0.049           |                     | 1.96           | 1.88          |                  | ug/L | 96  | 70 - 130 | 3      | 20  |       |
| Diclorvos (DDVP)                 | <0.049           |                     | 1.96           | 2.12          |                  | ug/L | 108 | 70 - 130 | 5      | 20  |       |
| Dieldrin                         | <0.0099          |                     | 1.96           | 1.98          |                  | ug/L | 101 | 70 - 130 | 1      | 20  |       |
| Diethylphthalate                 | <0.49            |                     | 1.96           | 2.17          |                  | ug/L | 110 | 70 - 130 | 0      | 20  |       |
| Dimethylphthalate                | <0.49            |                     | 1.96           | 2.14          |                  | ug/L | 109 | 70 - 130 | 2      | 20  |       |

# QC Sample Results

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

Job ID: 380-134238-1  
 SDG: Weekly

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

**Lab Sample ID: 380-133875-V-4-A MSD**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte                       | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D   | %Rec     | Limits | RPD | RPD Limit |
|-------------------------------|---------------|------------------|-------------|------------|---------------|------|-----|----------|--------|-----|-----------|
| Di-n-butyl phthalate          | <0.99         |                  | 3.92        | 4.24       |               | ug/L | 108 | 70 - 130 |        | 0   | 20        |
| Di-n-octyl phthalate          | <0.099        |                  | 1.96        | 1.65       |               | ug/L | 84  | 70 - 130 |        | 3   | 20        |
| Endosulfan I (Alpha)          | <0.099        |                  | 1.96        | 1.96       |               | ug/L | 100 | 70 - 130 |        | 2   | 20        |
| Endosulfan II (Beta)          | <0.099        |                  | 1.96        | 2.06       |               | ug/L | 105 | 70 - 130 |        | 4   | 20        |
| Endosulfan sulfate            | <0.099        |                  | 1.96        | 2.08       |               | ug/L | 106 | 70 - 130 |        | 3   | 20        |
| Endrin                        | <0.0099       |                  | 1.96        | 1.94       |               | ug/L | 99  | 70 - 130 |        | 3   | 20        |
| Endrin aldehyde               | <0.099        |                  | 1.96        | 1.91       |               | ug/L | 98  | 60 - 130 |        | 1   | 20        |
| EPTC                          | <0.099        |                  | 1.96        | 2.06       |               | ug/L | 105 | 70 - 130 |        | 1   | 20        |
| Fluoranthene                  | <0.099        |                  | 1.96        | 2.15       |               | ug/L | 109 | 70 - 130 |        | 1   | 20        |
| Fluorene                      | <0.049        |                  | 1.96        | 2.10       |               | ug/L | 107 | 70 - 130 |        | 1   | 20        |
| gamma-BHC (Lindane)           | <0.0099       |                  | 1.96        | 1.86       |               | ug/L | 95  | 70 - 130 |        | 1   | 20        |
| gamma-Chlordane               | <0.049        |                  | 1.96        | 1.99       |               | ug/L | 102 | 70 - 130 |        | 1   | 20        |
| Heptachlor                    | <0.0099       |                  | 1.96        | 1.99       |               | ug/L | 101 | 70 - 130 |        | 1   | 20        |
| Heptachlor epoxide (isomer B) | <0.0099       |                  | 1.96        | 1.97       |               | ug/L | 101 | 70 - 130 |        | 1   | 20        |
| Hexachlorobenzene             | <0.049        |                  | 1.96        | 1.88       |               | ug/L | 96  | 70 - 130 |        | 0   | 20        |
| Hexachlorocyclopentadiene     | <0.049        |                  | 1.96        | 1.91       |               | ug/L | 97  | 70 - 130 |        | 1   | 20        |
| Indeno[1,2,3-cd]pyrene        | <0.049        |                  | 1.96        | 2.10       |               | ug/L | 107 | 70 - 130 |        | 3   | 20        |
| Isophorone                    | <0.099        |                  | 1.96        | 1.98       |               | ug/L | 101 | 70 - 130 |        | 3   | 20        |
| Malathion                     | <0.099        |                  | 1.96        | 2.16       |               | ug/L | 110 | 70 - 130 |        | 0   | 20        |
| Methoxychlor                  | <0.049        |                  | 1.96        | 1.98       |               | ug/L | 101 | 70 - 130 |        | 0   | 20        |
| Metolachlor                   | <0.049        |                  | 1.96        | 2.12       |               | ug/L | 108 | 70 - 130 |        | 1   | 20        |
| Molinate                      | <0.099        |                  | 1.96        | 2.14       |               | ug/L | 109 | 70 - 130 |        | 1   | 20        |
| Naphthalene                   | <0.099        |                  | 1.96        | 1.92       |               | ug/L | 98  | 70 - 130 |        | 0   | 20        |
| Parathion                     | <0.099        |                  | 1.96        | 2.15       |               | ug/L | 109 | 70 - 130 |        | 2   | 20        |
| Pendimethalin (Penoxaline)    | <0.099        |                  | 1.96        | 2.02       |               | ug/L | 103 | 70 - 130 |        | 0   | 20        |
| Phenanthrene                  | <0.040        |                  | 1.96        | 1.91       |               | ug/L | 97  | 70 - 130 |        | 2   | 20        |
| Propachlor                    | <0.049        |                  | 1.96        | 2.15       |               | ug/L | 110 | 70 - 130 |        | 2   | 20        |
| Pyrene                        | <0.049        |                  | 1.96        | 2.11       |               | ug/L | 108 | 70 - 130 |        | 0   | 20        |
| Simazine                      | <0.049        |                  | 1.96        | 2.22       |               | ug/L | 113 | 70 - 130 |        | 4   | 20        |
| Terbacil                      | <0.099        |                  | 1.96        | 2.19       |               | ug/L | 112 | 70 - 130 |        | 6   | 20        |
| Terbutylazine                 | <0.099        |                  | 1.96        | 2.21       |               | ug/L | 113 | 70 - 130 |        | 2   | 20        |
| Thiobencarb                   | <0.099        |                  | 1.96        | 2.20       |               | ug/L | 112 | 70 - 130 |        | 1   | 20        |
| trans-Nonachlor               | <0.049        |                  | 1.96        | 2.00       |               | ug/L | 102 | 70 - 130 |        | 1   | 20        |
| Trifluralin                   | <0.099        |                  | 1.96        | 1.91       |               | ug/L | 97  | 70 - 130 |        | 0   | 20        |
| 1-Methylnaphthalene           | <0.099        |                  | 1.96        | 1.97       |               | ug/L | 100 | 70 - 130 |        | 0   | 20        |
| 2-Methylnaphthalene           | <0.099        |                  | 1.96        | 1.99       |               | ug/L | 101 | 70 - 130 |        | 0   | 20        |

**MSD MSD**

| Surrogate          | %Recovery | Qualifier | Limits   |
|--------------------|-----------|-----------|----------|
| 2-Nitro-m-xylene   | 98        |           | 70 - 130 |
| Perylene-d12       | 99        |           | 70 - 130 |
| Triphenylphosphate | 104       |           | 70 - 130 |

**Lab Sample ID: 380-133875-W-4-A MS**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D   | %Rec     | Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|-----|----------|--------|
| 2,4'-DDD | <0.099        |                  | 1.96        | 2.05      |              | ug/L | 104 | 70 - 130 |        |

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# QC Sample Results

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

Job ID: 380-134238-1  
 SDG: Weekly

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

**Lab Sample ID: 380-133875-W-4-A MS**

**Matrix: Water**

**Analysis Batch: 134289**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 134236**

| Analyte                          | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D   | %Rec     | Limits |
|----------------------------------|---------------|------------------|-------------|-----------|--------------|------|-----|----------|--------|
| 2,4'-DDE                         | <0.099        |                  | 1.96        | 2.01      |              | ug/L | 102 | 70 - 130 |        |
| 2,4'-DDT                         | <0.099        |                  | 1.96        | 2.07      |              | ug/L | 106 | 70 - 130 |        |
| 2,4-Dinitrotoluene               | <0.099        |                  | 1.96        | 1.81      |              | ug/L | 92  | 70 - 130 |        |
| 2,6-Dinitrotoluene               | <0.099        |                  | 1.96        | 1.79      |              | ug/L | 91  | 70 - 130 |        |
| 4,4'-DDD                         | <0.099        |                  | 1.96        | 2.06      |              | ug/L | 105 | 70 - 130 |        |
| 4,4'-DDE                         | <0.099        |                  | 1.96        | 1.96      |              | ug/L | 100 | 70 - 130 |        |
| 4,4'-DDT                         | <0.099        |                  | 1.96        | 2.06      |              | ug/L | 105 | 70 - 130 |        |
| Acenaphthene                     | <0.099        |                  | 1.96        | 1.92      |              | ug/L | 98  | 70 - 130 |        |
| Acenaphthylene                   | <0.099        |                  | 1.96        | 2.11      |              | ug/L | 108 | 70 - 130 |        |
| Acetochlor                       | <0.099        |                  | 1.96        | 2.14      |              | ug/L | 109 | 70 - 130 |        |
| Alachlor                         | <0.049        |                  | 1.96        | 2.11      |              | ug/L | 108 | 70 - 130 |        |
| alpha-BHC                        | <0.099        |                  | 1.96        | 2.01      |              | ug/L | 103 | 70 - 130 |        |
| alpha-Chlordane                  | <0.049        |                  | 1.96        | 2.02      |              | ug/L | 103 | 70 - 130 |        |
| Anthracene                       | <0.020        |                  | 1.96        | 1.60      |              | ug/L | 81  | 70 - 130 |        |
| Atrazine                         | <0.049        |                  | 1.96        | 2.19      |              | ug/L | 112 | 70 - 130 |        |
| Benz(a)anthracene                | <0.049        |                  | 1.96        | 1.92      |              | ug/L | 98  | 70 - 130 |        |
| Benzo[a]pyrene                   | <0.020        |                  | 1.96        | 1.83      |              | ug/L | 93  | 70 - 130 |        |
| Benzo[b]fluoranthene             | <0.020        |                  | 1.96        | 2.11      |              | ug/L | 108 | 70 - 130 |        |
| Benzo[g,h,i]perylene             | <0.049        |                  | 1.96        | 2.05      |              | ug/L | 104 | 70 - 130 |        |
| Benzo[k]fluoranthene             | <0.020        |                  | 1.96        | 2.08      |              | ug/L | 106 | 70 - 130 |        |
| beta-BHC                         | <0.099        |                  | 1.96        | 2.00      |              | ug/L | 102 | 70 - 130 |        |
| Bis(2-ethylhexyl) phthalate      | <0.59         |                  | 1.96        | 1.91      |              | ug/L | 97  | 70 - 130 |        |
| Aldrin                           | <0.0099       |                  | 1.96        | 1.91      |              | ug/L | 97  | 70 - 130 |        |
| Bromacil                         | <0.099        |                  | 1.96        | 1.97      |              | ug/L | 100 | 70 - 130 |        |
| Butachlor                        | <0.049        |                  | 1.96        | 2.21      |              | ug/L | 113 | 70 - 130 |        |
| Butylbenzylphthalate             | <0.49         |                  | 1.96        | 2.34      |              | ug/L | 119 | 70 - 130 |        |
| Chlorobenzilate                  | <0.099        |                  | 1.96        | 2.01      |              | ug/L | 103 | 70 - 130 |        |
| Chloroneb                        | <0.099        |                  | 1.96        | 1.93      |              | ug/L | 98  | 70 - 130 |        |
| Chlorothalonil (Draconil, Bravo) | <0.099        |                  | 1.96        | 2.14      |              | ug/L | 109 | 70 - 130 |        |
| Chlorpyrifos                     | <0.049        |                  | 1.96        | 2.15      |              | ug/L | 110 | 70 - 130 |        |
| Chrysene                         | <0.020        |                  | 1.96        | 2.01      |              | ug/L | 102 | 70 - 130 |        |
| delta-BHC                        | <0.099        |                  | 1.96        | 2.04      |              | ug/L | 104 | 70 - 130 |        |
| Di(2-ethylhexyl)adipate          | <0.59         |                  | 1.96        | 1.87      |              | ug/L | 95  | 70 - 130 |        |
| Dibenz(a,h)anthracene            | <0.049        |                  | 1.96        | 1.82      |              | ug/L | 93  | 70 - 130 |        |
| Diclorvos (DDVP)                 | <0.049        |                  | 1.96        | 2.02      |              | ug/L | 103 | 70 - 130 |        |
| Dieldrin                         | <0.0099       |                  | 1.96        | 1.96      |              | ug/L | 100 | 70 - 130 |        |
| Diethylphthalate                 | <0.49         |                  | 1.96        | 2.16      |              | ug/L | 110 | 70 - 130 |        |
| Dimethylphthalate                | <0.49         |                  | 1.96        | 2.09      |              | ug/L | 106 | 70 - 130 |        |
| Di-n-butyl phthalate             | <0.99         |                  | 3.92        | 4.24      |              | ug/L | 108 | 70 - 130 |        |
| Di-n-octyl phthalate             | <0.099        |                  | 1.96        | 1.61      |              | ug/L | 82  | 70 - 130 |        |
| Endosulfan I (Alpha)             | <0.099        |                  | 1.96        | 2.00      |              | ug/L | 102 | 70 - 130 |        |
| Endosulfan II (Beta)             | <0.099        |                  | 1.96        | 1.98      |              | ug/L | 101 | 70 - 130 |        |
| Endosulfan sulfate               | <0.099        |                  | 1.96        | 2.03      |              | ug/L | 103 | 70 - 130 |        |
| Endrin                           | <0.0099       |                  | 1.96        | 1.87      |              | ug/L | 96  | 70 - 130 |        |
| Endrin aldehyde                  | <0.099        |                  | 1.96        | 1.93      |              | ug/L | 99  | 60 - 130 |        |
| EPTC                             | <0.099        |                  | 1.96        | 2.08      |              | ug/L | 106 | 70 - 130 |        |
| Fluoranthene                     | <0.099        |                  | 1.96        | 2.13      |              | ug/L | 108 | 70 - 130 |        |
| Fluorene                         | <0.049        |                  | 1.96        | 2.08      |              | ug/L | 106 | 70 - 130 |        |
| gamma-BHC (Lindane)              | <0.0099       |                  | 1.96        | 1.83      |              | ug/L | 94  | 70 - 130 |        |

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# QC Sample Results

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

Job ID: 380-134238-1  
 SDG: Weekly

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

| Lab Sample ID: 380-133875-W-4-A MS |               |                  |              | Client Sample ID: Matrix Spike |              |      |     |          |        |
|------------------------------------|---------------|------------------|--------------|--------------------------------|--------------|------|-----|----------|--------|
| Matrix: Water                      |               |                  |              | Prep Type: Total/NA            |              |      |     |          |        |
| Analysis Batch: 134289             |               |                  |              | Prep Batch: 134236             |              |      |     |          |        |
| Analyte                            | Sample Result | Sample Qualifier | Spike Added  | MS Result                      | MS Qualifier | Unit | D   | %Rec     | Limits |
| gamma-Chlordane                    | <0.049        |                  | 1.96         | 1.98                           |              | ug/L | 101 | 70 - 130 |        |
| Heptachlor                         | <0.0099       |                  | 1.96         | 2.00                           |              | ug/L | 102 | 70 - 130 |        |
| Heptachlor epoxide (isomer B)      | <0.0099       |                  | 1.96         | 1.99                           |              | ug/L | 101 | 70 - 130 |        |
| Hexachlorobenzene                  | <0.049        |                  | 1.96         | 1.88                           |              | ug/L | 96  | 70 - 130 |        |
| Hexachlorocyclopentadiene          | <0.049        |                  | 1.96         | 1.93                           |              | ug/L | 98  | 70 - 130 |        |
| Indeno[1,2,3-cd]pyrene             | <0.049        |                  | 1.96         | 2.04                           |              | ug/L | 104 | 70 - 130 |        |
| Isophorone                         | <0.099        |                  | 1.96         | 1.91                           |              | ug/L | 97  | 70 - 130 |        |
| Malathion                          | <0.099        |                  | 1.96         | 2.16                           |              | ug/L | 110 | 70 - 130 |        |
| Methoxychlor                       | <0.049        |                  | 1.96         | 1.98                           |              | ug/L | 101 | 70 - 130 |        |
| Metolachlor                        | <0.049        |                  | 1.96         | 2.13                           |              | ug/L | 109 | 70 - 130 |        |
| Molinate                           | <0.099        |                  | 1.96         | 2.12                           |              | ug/L | 108 | 70 - 130 |        |
| Naphthalene                        | <0.099        |                  | 1.96         | 1.93                           |              | ug/L | 98  | 70 - 130 |        |
| Parathion                          | <0.099        |                  | 1.96         | 2.11                           |              | ug/L | 107 | 70 - 130 |        |
| Pendimethalin (Penoxaline)         | <0.099        |                  | 1.96         | 2.03                           |              | ug/L | 104 | 70 - 130 |        |
| Phenanthrene                       | <0.040        |                  | 1.96         | 1.94                           |              | ug/L | 99  | 70 - 130 |        |
| Propachlor                         | <0.049        |                  | 1.96         | 2.12                           |              | ug/L | 108 | 70 - 130 |        |
| Pyrene                             | <0.049        |                  | 1.96         | 2.10                           |              | ug/L | 107 | 70 - 130 |        |
| Simazine                           | <0.049        |                  | 1.96         | 2.13                           |              | ug/L | 108 | 70 - 130 |        |
| Terbacil                           | <0.099        |                  | 1.96         | 2.07                           |              | ug/L | 106 | 70 - 130 |        |
| Terbutylazine                      | <0.099        |                  | 1.96         | 2.16                           |              | ug/L | 110 | 70 - 130 |        |
| Thiobencarb                        | <0.099        |                  | 1.96         | 2.17                           |              | ug/L | 111 | 70 - 130 |        |
| trans-Nonachlor                    | <0.049        |                  | 1.96         | 1.97                           |              | ug/L | 101 | 70 - 130 |        |
| Trifluralin                        | <0.099        |                  | 1.96         | 1.92                           |              | ug/L | 98  | 70 - 130 |        |
| 1-Methylnaphthalene                | <0.099        |                  | 1.96         | 1.97                           |              | ug/L | 100 | 70 - 130 |        |
| 2-Methylnaphthalene                | <0.099        |                  | 1.96         | 1.99                           |              | ug/L | 102 | 70 - 130 |        |
| Surrogate                          | MS %Recovery  |                  | MS Qualifier | Limits                         |              |      |     |          |        |
| 2-Nitro-m-xylene                   | 98            |                  |              | 70 - 130                       |              |      |     |          |        |
| Perlylene-d12                      | 98            |                  |              | 70 - 130                       |              |      |     |          |        |
| Triphenylphosphate                 | 102           |                  |              | 70 - 130                       |              |      |     |          |        |

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

| Lab Sample ID: MB 570-533375/6 |              |              |          | Client Sample ID: Method Blank |   |          |                |         |  |
|--------------------------------|--------------|--------------|----------|--------------------------------|---|----------|----------------|---------|--|
| Matrix: Water                  |              |              |          | Prep Type: Total/NA            |   |          |                |         |  |
| Analysis Batch: 533375         |              |              |          |                                |   |          |                |         |  |
| Analyte                        | MB Result    | MB Qualifier | RL       | Unit                           | D | Prepared | Analyzed       | Dil Fac |  |
| GRO (C6-C10)                   | <10          |              | 10       | ug/L                           |   |          | 02/13/25 11:55 | 1       |  |
| Surrogate                      | MB %Recovery | MB Qualifier | Limits   |                                |   | Prepared | Analyzed       | Dil Fac |  |
| 4-Bromofluorobenzene (Surf)    | 91           |              | 38 - 134 |                                |   |          | 02/13/25 11:55 | 1       |  |

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-134238-1  
SDG: Weekly

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

**Lab Sample ID: LCS 570-533375/4**

**Matrix: Water**

**Analysis Batch: 533375**

| Analyte                          | Spike Added | LCS Result    | LCS Qualifier | Unit | D | %Rec | %Rec Limits |  |
|----------------------------------|-------------|---------------|---------------|------|---|------|-------------|--|
| Gasoline Range Organics (C4-C13) | 400         | 392           |               | ug/L |   | 98   | 78 - 120    |  |
| <b>Surrogate</b>                 |             |               |               |      |   |      |             |  |
| 4-Bromofluorobenzene (Surf)      |             |               |               |      |   |      |             |  |
|                                  | %Recovery   | LCS Qualifier | Limits        |      |   |      |             |  |
|                                  | 98          |               | 38 - 134      |      |   |      |             |  |

**Lab Sample ID: LCSD 570-533375/5**

**Matrix: Water**

**Analysis Batch: 533375**

| Analyte                          | Spike Added | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------------------------|-------------|----------------|----------------|------|---|------|-------------|-----|-----------|
| Gasoline Range Organics (C4-C13) | 400         | 373            |                | ug/L |   | 93   | 78 - 120    | 5   | 10        |
| <b>Surrogate</b>                 |             |                |                |      |   |      |             |     |           |
| 4-Bromofluorobenzene (Surf)      |             |                |                |      |   |      |             |     |           |
|                                  | %Recovery   | LCSD Qualifier | Limits         |      |   |      |             |     |           |
|                                  | 97          |                | 38 - 134       |      |   |      |             |     |           |

**Lab Sample ID: MRL 570-533375/3**

**Matrix: Water**

**Analysis Batch: 533375**

| Analyte                          | Spike Added | MRL Result    | MRL Qualifier | Unit | D | %Rec | %Rec Limits |  |
|----------------------------------|-------------|---------------|---------------|------|---|------|-------------|--|
| Gasoline Range Organics (C4-C13) | 10.0        | 11.4          |               | ug/L |   | 114  | 50 - 150    |  |
| <b>Surrogate</b>                 |             |               |               |      |   |      |             |  |
| 4-Bromofluorobenzene (Surf)      |             |               |               |      |   |      |             |  |
|                                  | %Recovery   | MRL Qualifier | Limits        |      |   |      |             |  |
|                                  | 94          |               | 38 - 134      |      |   |      |             |  |

**Lab Sample ID: 380-133869-B-1 MS**

**Matrix: Water**

**Analysis Batch: 533375**

| Analyte                          | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |  |
|----------------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|--|
| Gasoline Range Organics (C4-C13) | <10           |                  | 400         | 392       |              | ug/L |   | 98   | 68 - 122    |  |
| <b>Surrogate</b>                 |               |                  |             |           |              |      |   |      |             |  |
| 4-Bromofluorobenzene (Surf)      |               |                  |             |           |              |      |   |      |             |  |
|                                  | %Recovery     | MS Qualifier     | Limits      |           |              |      |   |      |             |  |
|                                  | 94            |                  | 38 - 134    |           |              |      |   |      |             |  |

**Lab Sample ID: 380-133869-B-1 MSD**

**Matrix: Water**

**Analysis Batch: 533375**

| 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         | 391        |               | ug/L |   | 98   | 68 - 122    | 0   | 18        |
| <b>Surrogate</b>                 |               |                  |             |            |               |      |   |      |             |     |           |
| 4-Bromofluorobenzene (Surf)      |               |                  |             |            |               |      |   |      |             |     |           |
|                                  | %Recovery     | MSD Qualifier    | Limits      |            |               |      |   |      |             |     |           |
|                                  | 94            |                  | 38 - 134    |            |               |      |   |      |             |     |           |

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

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

# QC Sample Results

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

Job ID: 380-134238-1  
SDG: Weekly

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

Lab Sample ID: 380-133869-B-1 MSD  
Matrix: Water  
Analysis Batch: 533375

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

| Surrogate                   | MSD       | MSD       |          |
|-----------------------------|-----------|-----------|----------|
|                             | %Recovery | Qualifier | Limits   |
| 4-Bromofluorobenzene (Surr) | 95        |           | 38 - 134 |

## Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level

Lab Sample ID: MB 570-531752/1-A  
Matrix: Water  
Analysis Batch: 532732

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 531752

| Analyte                            | MB     | MB        |  | RL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------|-----------|--|----|------|---|----------------|----------------|---------|
|                                    | Result | Qualifier |  |    |      |   |                |                |         |
| Diesel Range Organics (C10-C24)    | <25    |           |  | 25 | ug/L |   | 02/09/25 14:11 | 02/11/25 21:49 | 1       |
| Motor Oil Range Organics [C24-C36] | <25    |           |  | 25 | ug/L |   | 02/09/25 14:11 | 02/11/25 21:49 | 1       |
| C8-C18                             | <25    |           |  | 25 | ug/L |   | 02/09/25 14:11 | 02/11/25 21:49 | 1       |

  

| Surrogate           | MB        | MB        |  | Limits   | Prepared       | Analyzed       | Dil Fac |
|---------------------|-----------|-----------|--|----------|----------------|----------------|---------|
|                     | %Recovery | Qualifier |  |          |                |                |         |
| n-Octacosane (Surr) | 100       |           |  | 60 - 130 | 02/09/25 14:11 | 02/11/25 21:49 | 1       |

Lab Sample ID: LCS 570-531752/2-A  
Matrix: Water  
Analysis Batch: 532732

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 531752

| Analyte |  | Spike | LCS    | LCS       |      | %Rec   |
|---------|--|-------|--------|-----------|------|--------|
|         |  | Added | Result | Qualifier | Unit | Limits |
| C10-C28 |  | 1600  | 977    |           | ug/L | 61     |

  

| Surrogate           | LCS       | LCS       |  | Limits   | %Rec |
|---------------------|-----------|-----------|--|----------|------|
|                     | %Recovery | Qualifier |  |          |      |
| n-Octacosane (Surr) | 90        |           |  | 60 - 130 |      |

Lab Sample ID: LCSD 570-531752/3-A  
Matrix: Water  
Analysis Batch: 532732

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 531752

| Analyte |  | Spike | LCSD   | LCSD      |      | %Rec |
|---------|--|-------|--------|-----------|------|------|
|         |  | Added | Result | Qualifier | Unit | RPD  |
| C10-C28 |  | 1600  | 1270   | *1        | ug/L | 80   |

  

| Surrogate           | LCSD      | LCSD      |  | Limits   | RPD   |
|---------------------|-----------|-----------|--|----------|-------|
|                     | %Recovery | Qualifier |  |          | Limit |
| n-Octacosane (Surr) | 102       |           |  | 60 - 130 | 26    |

Lab Sample ID: MRL 570-531752/4-A  
Matrix: Water  
Analysis Batch: 536893

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 531752

| Analyte |  | Spike  | MRL    | MRL       |      | %Rec   |
|---------|--|--------|--------|-----------|------|--------|
|         |  | Added  | Result | Qualifier | Unit | Limits |
| C10-C28 |  | 0.0200 | 0.0242 | J         | mg/L | 121    |

  

| Surrogate           | MRL       | MRL       |  | Limits   |  |
|---------------------|-----------|-----------|--|----------|--|
|                     | %Recovery | Qualifier |  |          |  |
| n-Octacosane (Surr) | 83        |           |  | 60 - 130 |  |

# QC Sample Results

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

Job ID: 380-134238-1  
 SDG: Weekly

## **Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level (Continued)**

**Lab Sample ID: 380-133869-C-1-A MS**

**Matrix: Water**

**Analysis Batch: 532732**

| Analyte             | Sample | Sample    | Spike | MS        | MS        | Unit | D  | %Rec     | %Rec |
|---------------------|--------|-----------|-------|-----------|-----------|------|----|----------|------|
|                     | Result | Qualifier | Added | Result    | Qualifier |      |    |          |      |
| C10-C28             | <26    | ^3+       | 1640  | 1290      |           | ug/L | 78 | 70 - 130 |      |
| <b>Surrogate</b>    |        |           |       |           |           |      |    |          |      |
| n-Octacosane (Surr) |        | %Recovery |       | MSD       | MSD       |      |    |          |      |
|                     | 99     |           |       | Qualifier | Limits    |      |    |          |      |
|                     |        |           |       | 60 - 130  |           |      |    |          |      |

**Lab Sample ID: 380-133869-C-1-B MSD**

**Matrix: Water**

**Analysis Batch: 532732**

| Analyte             | Sample | Sample    | Spike | MSD       | MSD       | Unit | D  | %Rec     | %Rec | RPD |
|---------------------|--------|-----------|-------|-----------|-----------|------|----|----------|------|-----|
|                     | Result | Qualifier | Added | Result    | Qualifier |      |    |          |      |     |
| C10-C28             | <26    | ^3+       | 1660  | 1430      |           | ug/L | 86 | 70 - 130 |      | 11  |
| <b>Surrogate</b>    |        |           |       |           |           |      |    |          |      |     |
| n-Octacosane (Surr) |        | %Recovery |       | MSD       | MSD       |      |    |          |      |     |
|                     | 109    |           |       | Qualifier | Limits    |      |    |          |      |     |
|                     |        |           |       | 60 - 130  |           |      |    |          |      |     |

# QC Association Summary

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

Job ID: 380-134238-1  
SDG: Weekly

## GC/MS Semi VOA

### Prep Batch: 134236

| Lab Sample ID        | Client Sample ID          | Prep Type | Matrix | Method | Prep Batch |
|----------------------|---------------------------|-----------|--------|--------|------------|
| 380-134238-1         | Halawa Shaft Viewing Pool | Total/NA  | Water  | 525.2  |            |
| MB 380-134236/21-A   | Method Blank              | Total/NA  | Water  | 525.2  |            |
| LCS 380-134236/23-A  | Lab Control Sample        | Total/NA  | Water  | 525.2  |            |
| LCSD 380-134236/24-A | Lab Control Sample Dup    | Total/NA  | Water  | 525.2  |            |
| MRL 380-134236/22-A  | Lab Control Sample        | Total/NA  | Water  | 525.2  |            |
| 380-133875-V-4-A MSD | Matrix Spike Duplicate    | Total/NA  | Water  | 525.2  |            |
| 380-133875-W-4-A MS  | Matrix Spike              | Total/NA  | Water  | 525.2  |            |

### Analysis Batch: 134289

| Lab Sample ID        | Client Sample ID          | Prep Type | Matrix | Method | Prep Batch |
|----------------------|---------------------------|-----------|--------|--------|------------|
| 380-134238-1         | Halawa Shaft Viewing Pool | Total/NA  | Water  | 525.2  | 134236     |
| MB 380-134236/21-A   | Method Blank              | Total/NA  | Water  | 525.2  | 134236     |
| LCS 380-134236/23-A  | Lab Control Sample        | Total/NA  | Water  | 525.2  | 134236     |
| LCSD 380-134236/24-A | Lab Control Sample Dup    | Total/NA  | Water  | 525.2  | 134236     |
| MRL 380-134236/22-A  | Lab Control Sample        | Total/NA  | Water  | 525.2  | 134236     |
| 380-133875-V-4-A MSD | Matrix Spike Duplicate    | Total/NA  | Water  | 525.2  | 134236     |
| 380-133875-W-4-A MS  | Matrix Spike              | Total/NA  | Water  | 525.2  | 134236     |

## GC VOA

### Analysis Batch: 533375

| Lab Sample ID      | Client Sample ID          | Prep Type | Matrix | Method       | Prep Batch |
|--------------------|---------------------------|-----------|--------|--------------|------------|
| 380-134238-1       | Halawa Shaft Viewing Pool | Total/NA  | Water  | 8015B GRO LL |            |
| MB 570-533375/6    | Method Blank              | Total/NA  | Water  | 8015B GRO LL |            |
| LCS 570-533375/4   | Lab Control Sample        | Total/NA  | Water  | 8015B GRO LL |            |
| LCSD 570-533375/5  | Lab Control Sample Dup    | Total/NA  | Water  | 8015B GRO LL |            |
| MRL 570-533375/3   | Lab Control Sample        | Total/NA  | Water  | 8015B GRO LL |            |
| 380-133869-B-1 MS  | Matrix Spike              | Total/NA  | Water  | 8015B GRO LL |            |
| 380-133869-B-1 MSD | Matrix Spike Duplicate    | Total/NA  | Water  | 8015B GRO LL |            |

## GC Semi VOA

### Prep Batch: 531752

| Lab Sample ID        | Client Sample ID          | Prep Type | Matrix | Method | Prep Batch |
|----------------------|---------------------------|-----------|--------|--------|------------|
| 380-134238-1         | Halawa Shaft Viewing Pool | Total/NA  | Water  | 3510C  |            |
| MB 570-531752/1-A    | Method Blank              | Total/NA  | Water  | 3510C  |            |
| LCS 570-531752/2-A   | Lab Control Sample        | Total/NA  | Water  | 3510C  |            |
| LCSD 570-531752/3-A  | Lab Control Sample Dup    | Total/NA  | Water  | 3510C  |            |
| MRL 570-531752/4-A   | Lab Control Sample        | Total/NA  | Water  | 3510C  |            |
| 380-133869-C-1-A MS  | Matrix Spike              | Total/NA  | Water  | 3510C  |            |
| 380-133869-C-1-B MSD | Matrix Spike Duplicate    | Total/NA  | Water  | 3510C  |            |

### Analysis Batch: 532732

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| MB 570-531752/1-A    | Method Blank           | Total/NA  | Water  | 8015B  | 531752     |
| LCS 570-531752/2-A   | Lab Control Sample     | Total/NA  | Water  | 8015B  | 531752     |
| LCSD 570-531752/3-A  | Lab Control Sample Dup | Total/NA  | Water  | 8015B  | 531752     |
| 380-133869-C-1-A MS  | Matrix Spike           | Total/NA  | Water  | 8015B  | 531752     |
| 380-133869-C-1-B MSD | Matrix Spike Duplicate | Total/NA  | Water  | 8015B  | 531752     |

# QC Association Summary

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

Job ID: 380-134238-1  
SDG: Weekly

## GC Semi VOA

Analysis Batch: 536893

| Lab Sample ID      | Client Sample ID          | Prep Type | Matrix | Method | Prep Batch |
|--------------------|---------------------------|-----------|--------|--------|------------|
| 380-134238-1       | Halawa Shaft Viewing Pool | Total/NA  | Water  | 8015B  | 531752     |
| MRL 570-531752/4-A | Lab Control Sample        | Total/NA  | Water  | 8015B  | 531752     |

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# Lab Chronicle

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

Job ID: 380-134238-1  
SDG: Weekly

**Client Sample ID: Halawa Shaft Viewing Pool**

**Lab Sample ID: 380-134238-1**

**Matrix: Water**

Date Collected: 02/04/25 10:00

Date Received: 02/06/25 10:22

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab       | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|-----------|----------------------|
| Total/NA  | Prep       | 525.2        |     |                 | 134236       | OTM3    | EA POM    | 02/11/25 06:16       |
| Total/NA  | Analysis   | 525.2        |     | 1               | 134289       | Q8LA    | EA POM    | 02/11/25 22:05       |
| Total/NA  | Analysis   | 8015B GRO LL |     | 1               | 533375       | A9VE    | EET CAL 4 | 02/13/25 21:23       |
| Total/NA  | Prep       | 3510C        |     |                 | 531752       | TVD6    | EET CAL 4 | 02/09/25 14:11       |
| Total/NA  | Analysis   | 8015B        |     | 1               | 536893       | E5RH    | EET CAL 4 | 02/22/25 03:06       |

**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: 380-134238-1  
 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 *                       |
| The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification. |             |                       |                                  |
| Analysis Method   | Prep Method | Matrix                | Analyte                          |
| 525.2   | 525.2       | 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 |
|--------------|---|-----------------------|-----------------|
| AZLA         | 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                  | 07-31-25        |

\* 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: 380-134238-1  
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        |
| Utah       | NELAP               | CA001112025-8         | 02-28-26        |
| Washington | State               | C916                  | 10-11-25        |

# Method Summary

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

Job ID: 380-134238-1  
SDG: Weekly

| Method       | Method Description                           | Protocol | Laboratory |
|--------------|--|----------|------------|
| 525.2        | Semivolatile Organic Compounds (GC/MS)       | EPA      | EA POM     |
| 8015B GRO LL | Gasoline Range Organics - (GC)               | SW846    | EET CAL 4  |
| 8015B        | Diesel Range Organics (DRO) (GC) Low Level   | SW846    | EET CAL 4  |
| 3510C        | Liquid-Liquid Extraction (Separatory Funnel) | SW846    | EET CAL 4  |
| 5030C        | Purge and Trap                               | SW846    | EET CAL 4  |
| 525.2        | Extraction of Semivolatile Compounds         | EPA      | EA POM     |

## Protocol References:

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: 380-134238-1  
SDG: Weekly

| Lab Sample ID | Client Sample ID          | Matrix | Collected      | Received       |
|---------------|---------------------------|--------|----------------|----------------|
| 380-134238-1  | Halawa Shaft Viewing Pool | Water  | 02/04/25 10:00 | 02/06/25 10:22 |

## Chain of Custody Record

Environment Testing

Environment Testing

| Client Information   |  |                                    |   | Carrier Tracking No(s):         |                    |
|--|--|------------------------------------|---|---------------------------------|--------------------|
| Client Contact:  | Dr Ron Fenstremacher                     | Sampler:                           | Ryan Greer  | Lab P/M:                        | Arada, Rachelle    |
| Address:   | 630 South Beretania Street Chemistry Lab | E-Mail:                            | Rachelle.Arada@jet.eurofinsus.com                                   | State of Origin:                | HI                 |
| City & County of Honolulu  |  | PWSID:                             |   | Job #:                          |                    |
| Address:   | 630 South Beretania Street Chemistry Lab | Due Date Requested:                |   | Analysis Requested              |                    |
| City:  | Honolulu                                 | TAT Requested (days):              |   |                                 |                    |
| State Zip:   | HI 96843                                 | Compliance Project:                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                                 |                    |
| Phone:   | 808-748-5091 (Tel)                       | PO #:                              | C20525101 exp 05312023  |                                 |                    |
| Email:   | RFENSTMACHER@hbws.org                    | WO #:                              |   |                                 |                    |
| Project Name:  | RED-HILL/HBWS Sites                      | Event Desc:                        | RUSH Weekly Red Hill  |                                 |                    |
| Site:  | Hawaii                                   | SSOW#:                             |   |                                 |                    |
| Sample Identification  |  |                                    |   |                                 |                    |
| Sample Date  | Sample Time                              | Sample Type<br>(C=comp,<br>G=grab) | Sample<br>(Water<br>Soil,<br>Groundwater,<br>Tissue, etc.)          | Matrix                          | Preservation Code: |
| 2/4/25   | 10:00                                    | G                                  | Water   | 626.1, 626.1-SIM                | R                  |
| Halawa Shaft Viewing Pool  |  |                                    |   | 8016B-GRO_LL-CS                 | Q                  |
|  |  |                                    |   | 525.2_PREC - (MOD) GRO          | Y                  |
|  |  |                                    |   | 537.1_DW_PREC - 537.1 Full TICs | I                  |
|  |  |                                    |   | 633 - All Analytes              |                    |
|  |  |                                    |   | Total Number of containers      |                    |
|  |  |                                    |   | Other                           |                    |
| Special Instructions/Note:   |  |                                    |   |                                 |                    |
| Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  |  |                                    |   |                                 |                    |
| <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months   |  |                                    |   |                                 |                    |
| Special Instructions/QC Requirements.  |  |                                    |   |                                 |                    |
| Possible Hazard Identification   |  | Date:                              | Time:   | Method of Shipment:             |                    |
| <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 |  | Date/Time:                         | Received by:  | Date/Time:                      | Company:           |
| Deliverable Requested I, II, III, IV, Other (specify)  |  | Date/Time:                         | Received by:  | Date/Time:                      | Company:           |
| Empty Kit Relinquished by  |  | Date:                              | Time:   | Relinquished by                 |                    |
| <input type="checkbox"/> Relinquished  |  | Date/Time:                         | Received by:  | Date/Time:                      | Company:           |
| Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  |  | Custody Seal No                    |   |                                 |                    |
| Cooler Temperature(s) °C and Other Remarks: (70.0) 15-02-13 gel-frozen   |  |                                    |   |                                 |                    |

## **Chain of Custody Record**



Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

|  |                   |  |  |   |                                   |                      |
|--|-------------------|--|--|---|-----------------------------------|----------------------|
| <b>Possible Hazard Identification</b>                  |                   | <b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> |  |   |                                   |                      |
| <i>Unconfirmed</i>                                     |                   | <input type="checkbox"/> Return To Client  | <input type="checkbox"/> Disposal By Lab | <input type="checkbox"/> Archive For        | Months                            |                      |
| Deliverable Requested: I, II, III, IV, Other (specify) |                   | Primary Deliverable Rank: 2  |  | Special Instructions/QC Requirements:       |                                   |                      |
| Empty Kit Relinquished by:                             |                   | Date:  | Time:                                    | Method of Shipment:                         |                                   |                      |
| Relinquished by:<br><i>Xan</i>                         |                   | Date/Time:<br><i>2/7/25 1045</i>   | Company<br><i>B24</i>                    | Received by:<br><i>jew</i>                  | Date/Time:<br><i>2/7/25 10:45</i> | Company<br><i>62</i> |
| Relinquished by:                                       |                   | Date/Time:   | Company                                  | Received by:                                | Date/Time:                        | Company              |
| Relinquished by:                                       |                   | Date/Time:   | Company                                  | Received by:                                | Date/Time:                        | Company              |
| Custody Seals Intact:<br>△ Yes △ No                    | Custody Seal No.: |  |  | Cooler Temperature(s) °C and Other Remarks: |                                   | 2-3 12-8 5/19        |

## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-134238-1

SDG Number: Weekly

**Login Number:** 134238

**List Source:** Eurofins Eaton Analytical Pomona

**List Number:** 1

**Creator:** Hernandez, Orlando

### 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

ClO<sub>4</sub> 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: 380-134238-1

SDG Number: Weekly

**Login Number:** 134238

**List Source:** Eurofins Calscience

**List Number:** 2

**List Creation:** 02/07/25 01:31 PM

**Creator:** Khana, Piyush

| Question   | Answer | Comment                            |    |
|--|--------|------------------------------------|----|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A    |                                    | 1  |
| The cooler's custody seal, if present, is intact.                                | N/A    |                                    | 2  |
| Sample custody seals, if present, are intact.                                    | N/A    |                                    | 3  |
| The cooler or samples do not appear to have been compromised or tampered with.   | True   |                                    | 4  |
| Samples were received on ice.  | True   |                                    | 5  |
| Cooler Temperature is acceptable.  | True   |                                    | 6  |
| Cooler Temperature is recorded.  | True   | 2.5                                | 7  |
| COC is present.  | True   |                                    | 8  |
| COC is filled out in ink and legible.  | True   |                                    | 9  |
| COC is filled out with all pertinent information.                                | True   |                                    | 10 |
| Is the Field Sampler's name present on COC?                                      | N/A    | Received project as a subcontract. | 11 |
| There are no discrepancies between the containers received and the COC.          | True   |                                    | 12 |
| Samples are received within Holding Time (excluding tests with immediate HTs)    | True   |                                    | 13 |
| Sample containers have legible labels.   | True   |                                    | 14 |
| Containers are not broken or leaking.  | True   |                                    | 15 |
| Sample collection date/times are provided.                                       | True   |                                    | 16 |
| 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 <6mm (1/4").  | True   |                                    |    |
| Multiphasic samples are not present.   | True   |                                    |    |
| Samples do not require splitting or compositing.                                 | True   |                                    |    |
| Residual Chlorine Checked.   | N/A    |                                    |    |