

# ANALYTICAL REPORT

## PREPARED FOR

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

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## JOB DESCRIPTION

RED-HILL  
Weekly

## JOB NUMBER

380-135687-1

# 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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Authorized for release by  
Rachelle Arada, Project Manager  
[Rachelle.Arada@et.eurofinsus.com](mailto:Rachelle.Arada@et.eurofinsus.com)  
(626)386-1106



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# Definitions/Glossary

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

Job ID: 380-135687-1  
SDG: Weekly

## Qualifiers

### GC/MS Semi VOA

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

### GC/MS Semi VOA TICs

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

### GC 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.

## 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: 380-135687-1

**Job ID: 380-135687-1**

**Eurofins Eaton Analytical Pomona**

## **Job Narrative 380-135687-1**

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 2/13/2025 9:56 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 3.5°C.

### **GC/MS Semi VOA**

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**

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: 380-135687-1  
SDG: Weekly

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**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-135687-1**

No Detections.

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**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 380-135687-2**

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: 380-135687-1  
SDG: Weekly

**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-135687-1**

Date Collected: 02/11/25 10:00

Matrix: Water

Date Received: 02/13/25 09:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
2,4'-DDD	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
2,4'-DDE	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
2,4'-DDT	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
2-Methylnaphthalene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
4,4'-DDD	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
4,4'-DDE	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
4,4'-DDT	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Acenaphthene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Acenaphthylene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Acetochlor	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Alachlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
alpha-BHC	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
alpha-Chlordane	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Anthracene	<0.020		0.020	ug/L		02/17/25 13:54	02/18/25 16:12	1
Atrazine	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Benz(a)anthracene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Benzo[a]pyrene	<0.020		0.020	ug/L		02/17/25 13:54	02/18/25 16:12	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		02/17/25 13:54	02/18/25 16:12	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		02/17/25 13:54	02/18/25 16:12	1
beta-BHC	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		02/17/25 13:54	02/18/25 16:12	1
Bromacil	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Butachlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Butylbenzylphthalate	<0.49		0.49	ug/L		02/17/25 13:54	02/18/25 16:12	1
Chlorobenzilate	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Chloroneb	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Chlorpyrifos	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Chrysene	<0.020		0.020	ug/L		02/17/25 13:54	02/18/25 16:12	1
delta-BHC	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		02/17/25 13:54	02/18/25 16:12	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Dieldrin	<0.0098		0.0098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Diethylphthalate	<0.49		0.49	ug/L		02/17/25 13:54	02/18/25 16:12	1
Dimethylphthalate	<0.49		0.49	ug/L		02/17/25 13:54	02/18/25 16:12	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		02/17/25 13:54	02/18/25 16:12	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Endosulfan sulfate	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Endrin	<0.0098		0.0098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Endrin aldehyde	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
EPTC	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Fluoranthene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1

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# Client Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-135687-1**

Date Collected: 02/11/25 10:00

Matrix: Water

Date Received: 02/13/25 09:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
gamma-Chlordane	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Heptachlor	<0.0098		0.0098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Heptachlor epoxide (isomer B)	<0.0098		0.0098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Hexachlorobenzene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Isophorone	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Lindane	<0.0098		0.0098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Malathion	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Methoxychlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Metolachlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Molinate	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Naphthalene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Parathion	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Phenanthrene	<0.039		0.039	ug/L		02/17/25 13:54	02/18/25 16:12	1
Propachlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Pyrene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Simazine	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Terbacil	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Terbutylazine	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Thiobencarb	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		02/17/25 13:54	02/18/25 16:12	1
trans-Nonachlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 16:12	1
Trifluralin	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 16:12	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	02/17/25 13:54	02/18/25 16:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	02/17/25 13:54	02/18/25 16:12	1
Perylene-d12	95		70 - 130	02/17/25 13:54	02/18/25 16:12	1
Triphenylphosphate	102		70 - 130	02/17/25 13:54	02/18/25 16:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
2-Methylnaphthalene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Acenaphthene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Acenaphthylene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Anthracene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Benzo[a]anthracene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Benzo[a]pyrene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Chrysene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Fluoranthene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1

Eurofins Eaton Analytical Pomona



# Client Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-135687-1**

Date Collected: 02/11/25 10:00

Matrix: Water

Date Received: 02/13/25 09:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Naphthalene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Phenanthrene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1
Pyrene	<0.19		0.19	ug/L		02/17/25 05:09	02/25/25 17:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	68		28 - 127	02/17/25 05:09	02/25/25 17:37	1
2-Fluorobiphenyl (Surr)	57		31 - 120	02/17/25 05:09	02/25/25 17:37	1
2-Fluorophenol (Surr)	41		17 - 120	02/17/25 05:09	02/25/25 17:37	1
Nitrobenzene-d5 (Surr)	62		27 - 120	02/17/25 05:09	02/25/25 17:37	1
Phenol-d6 (Surr)	27		10 - 120	02/17/25 05:09	02/25/25 17:37	1
p-Terphenyl-d14 (Surr)	69		45 - 120	02/17/25 05:09	02/25/25 17:37	1

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	02/17/25 05:09	02/26/25 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	67		33 - 139	02/17/25 05:09	02/26/25 12:45	1
2-Fluorobiphenyl (Surr)	69		33 - 126	02/17/25 05:09	02/26/25 12:45	1
2-Fluorophenol (Surr)	42		12 - 120	02/17/25 05:09	02/26/25 12:45	1
Nitrobenzene-d5 (Surr)	84		36 - 120	02/17/25 05:09	02/26/25 12:45	1
Phenol-d6 (Surr)	30		10 - 120	02/17/25 05:09	02/26/25 12:45	1
p-Terphenyl-d14 (Surr)	71		47 - 131	02/17/25 05:09	02/26/25 12:45	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			02/20/25 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		38 - 134		02/20/25 22:09	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)	<26		26	ug/L		02/17/25 15:29	02/25/25 02:25	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		02/17/25 15:29	02/25/25 02:25	1
C8-C18	<26		26	ug/L		02/17/25 15:29	02/25/25 02:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	98		60 - 130	02/17/25 15:29	02/25/25 02:25	1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 380-135687-2**

Date Collected: 02/11/25 10:00

Matrix: Water

Date Received: 02/13/25 09:56

**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			02/20/25 20:02	1

# Client Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 380-135687-2**

Date Collected: 02/11/25 10:00

Matrix: Water

Date Received: 02/13/25 09:56

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
4-Bromofluorobenzene (Surr)	80		38 - 134		02/20/25 20:02	1

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# Action Limit Summary

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

Job ID: 380-135687-1  
SDG: Weekly

**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-135687-1**

## Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59		ug/L	400	0.59	525.2	Total/NA
Endrin	<0.0098		ug/L	2	0.0098	525.2	Total/NA
Heptachlor	<0.0098		ug/L	0.4	0.0098	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0098		ug/L	0.2	0.0098	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0098		ug/L	0.2	0.0098	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

# Surrogate Summary

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

Job ID: 380-135687-1  
SDG: Weekly

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-135155-I-1-A MS	Matrix Spike	98	98	101
380-135155-I-2-A DU	Duplicate	98	97	100
380-135687-1	HALAWA SHAFT VIEWING POOL	98	95	102
LCS 380-135861/23-A	Lab Control Sample	99	98	101
LCSD 380-135861/24-A	Lab Control Sample Dup	98	100	105
MB 380-135861/21-A	Method Blank	97	99	100
MRL 380-135861/22-A	Lab Control Sample	96	99	99

**Surrogate Legend**

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (33-139)	FBP (33-126)	2FP (12-120)	NBZ (36-120)	PHL6 (10-120)	TPHd14 (47-131)
380-135687-1	HALAWA SHAFT VIEWING POOL	67	69	42	84	30	71
MB 570-534554/1-A	Method Blank	79	78	49	90	28	79

**Surrogate Legend**

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHd14 (45-120)
380-135687-1	HALAWA SHAFT VIEWING POOL	68	57	41	62	27	69
LCS 570-534554/2-A	Lab Control Sample	90	80	54	80	35	84
LCSD 570-534554/3-A	Lab Control Sample Dup	91	84	55	80	33	88
MB 570-534554/1-A	Method Blank	86	74	49	85	31	81

**Surrogate Legend**

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

# Surrogate Summary

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

Job ID: 380-135687-1  
SDG: Weekly

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-135325-C-1 MS	Matrix Spike	92
380-135325-C-1 MSD	Matrix Spike Duplicate	95
380-135687-1	HALAWA SHAFT VIEWING POOL	80
380-135687-2	TRIP BLANK	80
LCS 570-536151/1008	Lab Control Sample	92
LCSD 570 536151/9	Lab Control Sample Dup	90
MB 570-536151/10	Method Blank	77
MRL 570-536151/1003	Lab Control Sample	82

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-135325-B-1-A MS	Matrix Spike	99
380-135325-B-1-B MSD	Matrix Spike Duplicate	96
380-135687-1	HALAWA SHAFT VIEWING POOL	98
LCS 570-534854/2-A	Lab Control Sample	95
LCSD 570-534854/3-A	Lab Control Sample Dup	100
MB 570-534854/1-A	Method Blank	103
MRL 570-534854/4-A	Lab Control Sample	97

#### Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

**Lab Sample ID: MB 380-135861/21-A**  
**Matrix: Water**  
**Analysis Batch: 136161**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 135861**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
2,4'-DDD	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
2,4'-DDE	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
2,4'-DDT	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
2-Methylnaphthalene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
4,4'-DDD	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
4,4'-DDE	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
4,4'-DDT	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Acenaphthene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Acenaphthylene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Acetochlor	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Alachlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
alpha-BHC	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
alpha-Chlordane	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Anthracene	<0.020		0.020	ug/L		02/17/25 13:54	02/18/25 15:09	1
Atrazine	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Benz(a)anthracene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Benzo[a]pyrene	<0.020		0.020	ug/L		02/17/25 13:54	02/18/25 15:09	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		02/17/25 13:54	02/18/25 15:09	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		02/17/25 13:54	02/18/25 15:09	1
beta-BHC	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		02/17/25 13:54	02/18/25 15:09	1
Bromacil	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Butachlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Butylbenzylphthalate	<0.49		0.49	ug/L		02/17/25 13:54	02/18/25 15:09	1
Chlorobenzilate	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Chloroneb	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Chlorpyrifos	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Chrysene	<0.020		0.020	ug/L		02/17/25 13:54	02/18/25 15:09	1
delta-BHC	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		02/17/25 13:54	02/18/25 15:09	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Dieldrin	<0.0098		0.0098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Diethylphthalate	<0.49		0.49	ug/L		02/17/25 13:54	02/18/25 15:09	1
Dimethylphthalate	<0.49		0.49	ug/L		02/17/25 13:54	02/18/25 15:09	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		02/17/25 13:54	02/18/25 15:09	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Endosulfan sulfate	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Endrin	<0.0098		0.0098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Endrin aldehyde	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
EPTC	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1

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# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

**Lab Sample ID: MB 380-135861/21-A**  
**Matrix: Water**  
**Analysis Batch: 136161**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 135861**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Fluoranthene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Fluorene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
gamma-Chlordane	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Heptachlor	<0.0098		0.0098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Heptachlor epoxide (isomer B)	<0.0098		0.0098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Hexachlorobenzene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Isophorone	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Lindane	<0.0098		0.0098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Malathion	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Methoxychlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Metolachlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Molinate	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Naphthalene	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Parathion	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Phenanthrene	<0.039		0.039	ug/L		02/17/25 13:54	02/18/25 15:09	1
Propachlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Pyrene	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Simazine	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Terbacil	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Terbutylazine	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Thiobencarb	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		02/17/25 13:54	02/18/25 15:09	1
trans-Nonachlor	<0.049		0.049	ug/L		02/17/25 13:54	02/18/25 15:09	1
Trifluralin	<0.098		0.098	ug/L		02/17/25 13:54	02/18/25 15:09	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Unknown	0.615	T J	ug/L		4.75	N/A	02/17/25 13:54	02/18/25 15:09	1
9-Octadecenamamide, (Z)-	0.951	T J N	ug/L		7.91	301-02-0	02/17/25 13:54	02/18/25 15:09	1
13-Docosenamamide, (Z)-	0.961	T J N	ug/L		10.45	112-84-5	02/17/25 13:54	02/18/25 15:09	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Nitro-m-xylene	97		70 - 130	02/17/25 13:54	02/18/25 15:09	1
Perylene-d12	99		70 - 130	02/17/25 13:54	02/18/25 15:09	1
Triphenylphosphate	100		70 - 130	02/17/25 13:54	02/18/25 15:09	1

**Lab Sample ID: LCS 380-135861/23-A**  
**Matrix: Water**  
**Analysis Batch: 136161**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 135861**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	1.97	1.84		ug/L		94	70 - 130
2,4'-DDD	1.97	2.03		ug/L		103	70 - 130
2,4'-DDE	1.97	1.96		ug/L		100	70 - 130
2,4'-DDT	1.97	2.08		ug/L		106	70 - 130
2,4-Dinitrotoluene	1.97	1.99		ug/L		101	70 - 130

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# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

Lab Sample ID: LCS 380-135861/23-A

Matrix: Water

Analysis Batch: 136161

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 135861

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
2,6-Dinitrotoluene	1.97	2.07		ug/L		106	70 - 130
2-Methylnaphthalene	1.97	1.88		ug/L		96	70 - 130
4,4'-DDD	1.97	2.05		ug/L		105	70 - 130
4,4'-DDE	1.97	2.00		ug/L		102	70 - 130
4,4'-DDT	1.97	1.99		ug/L		101	70 - 130
Acenaphthene	1.97	2.00		ug/L		102	70 - 130
Acenaphthylene	1.97	1.95		ug/L		99	70 - 130
Acetochlor	1.97	1.95		ug/L		99	70 - 130
Alachlor	1.97	1.99		ug/L		101	70 - 130
alpha-BHC	1.97	1.95		ug/L		99	70 - 130
alpha-Chlordane	1.97	1.96		ug/L		100	70 - 130
Anthracene	1.97	1.85		ug/L		94	70 - 130
Atrazine	1.97	2.08		ug/L		106	70 - 130
Benz(a)anthracene	1.97	2.01		ug/L		102	70 - 130
Benzo[a]pyrene	1.97	2.06		ug/L		105	70 - 130
Benzo[b]fluoranthene	1.97	2.14		ug/L		109	70 - 130
Benzo[g,h,i]perylene	1.97	2.09		ug/L		107	70 - 130
Benzo[k]fluoranthene	1.97	2.19		ug/L		111	70 - 130
beta-BHC	1.97	1.97		ug/L		100	70 - 130
Bis(2-ethylhexyl) phthalate	1.97	2.12		ug/L		108	70 - 130
Bromacil	1.97	2.03		ug/L		103	70 - 130
Butachlor	1.97	2.16		ug/L		110	70 - 130
Butylbenzylphthalate	1.97	2.03		ug/L		103	70 - 130
Chlorobenzilate	1.97	1.94		ug/L		99	70 - 130
Chloroneb	1.97	1.91		ug/L		97	70 - 130
Chlorothalonil (Draconil, Bravo)	1.97	2.23		ug/L		114	70 - 130
Chlorpyrifos	1.97	2.03		ug/L		103	70 - 130
Chrysene	1.97	2.01		ug/L		102	70 - 130
delta-BHC	1.97	1.93		ug/L		98	70 - 130
Di(2-ethylhexyl)adipate	1.97	2.06		ug/L		105	70 - 130
Dibenz(a,h)anthracene	1.97	1.99		ug/L		101	70 - 130
Diclorvos (DDVP)	1.97	2.01		ug/L		102	70 - 130
Dieldrin	1.97	1.94		ug/L		99	70 - 130
Diethylphthalate	1.97	2.03		ug/L		103	70 - 130
Dimethylphthalate	1.97	2.01		ug/L		102	70 - 130
Di-n-butyl phthalate	3.93	4.14		ug/L		105	70 - 130
Di-n-octyl phthalate	1.97	1.98		ug/L		101	70 - 130
Endosulfan I (Alpha)	1.97	1.90		ug/L		97	70 - 130
Endosulfan II (Beta)	1.97	1.98		ug/L		101	70 - 130
Endosulfan sulfate	1.97	2.06		ug/L		105	70 - 130
Endrin	1.97	2.06		ug/L		105	70 - 130
Endrin aldehyde	1.97	1.94		ug/L		99	60 - 130
EPTC	1.97	2.05		ug/L		104	70 - 130
Fluoranthene	1.97	2.07		ug/L		105	70 - 130
Fluorene	1.97	2.00		ug/L		102	70 - 130
gamma-Chlordane	1.97	1.96		ug/L		100	70 - 130
Heptachlor	1.97	2.10		ug/L		107	70 - 130
Heptachlor epoxide (isomer B)	1.97	2.02		ug/L		103	70 - 130
Hexachlorobenzene	1.97	1.84		ug/L		93	70 - 130

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# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

Lab Sample ID: LCS 380-135861/23-A

Matrix: Water

Analysis Batch: 136161

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 135861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	1.97	1.81		ug/L		92	70 - 130
Indeno[1,2,3-cd]pyrene	1.97	2.05		ug/L		104	70 - 130
Isophorone	1.97	1.99		ug/L		101	70 - 130
Lindane	1.97	2.01		ug/L		102	70 - 130
Malathion	1.97	2.01		ug/L		102	70 - 130
Methoxychlor	1.97	2.05		ug/L		104	70 - 130
Metolachlor	1.97	2.10		ug/L		107	70 - 130
Molinate	1.97	2.07		ug/L		105	70 - 130
Naphthalene	1.97	2.02		ug/L		103	70 - 130
Parathion	1.97	2.11		ug/L		107	70 - 130
Pendimethalin (Penoxaline)	1.97	2.02		ug/L		103	70 - 130
Phenanthrene	1.97	2.02		ug/L		103	70 - 130
Propachlor	1.97	2.06		ug/L		105	70 - 130
Pyrene	1.97	2.09		ug/L		106	70 - 130
Simazine	1.97	2.05		ug/L		104	70 - 130
Terbacil	1.97	2.19		ug/L		111	70 - 130
Terbutylazine	1.97	2.06		ug/L		105	70 - 130
Thiobencarb	1.97	2.19		ug/L		111	70 - 130
trans-Nonachlor	1.97	1.94		ug/L		99	70 - 130
Trifluralin	1.97	1.80		ug/L		92	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	101		70 - 130

Lab Sample ID: LCSD 380-135861/24-A

Matrix: Water

Analysis Batch: 136161

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 135861

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
1-Methylnaphthalene	1.97	1.87		ug/L		95	70 - 130	2	20
2,4'-DDD	1.97	2.11		ug/L		107	70 - 130	4	20
2,4'-DDE	1.97	2.06		ug/L		105	70 - 130	5	20
2,4'-DDT	1.97	2.21		ug/L		112	70 - 130	6	20
2,4-Dinitrotoluene	1.97	2.07		ug/L		105	70 - 130	4	20
2,6-Dinitrotoluene	1.97	2.17		ug/L		110	70 - 130	5	20
2-Methylnaphthalene	1.97	1.91		ug/L		97	70 - 130	2	20
4,4'-DDD	1.97	2.15		ug/L		109	70 - 130	5	20
4,4'-DDE	1.97	2.11		ug/L		107	70 - 130	5	20
4,4'-DDT	1.97	2.11		ug/L		107	70 - 130	6	20
Acenaphthene	1.97	2.02		ug/L		103	70 - 130	1	20
Acenaphthylene	1.97	1.98		ug/L		101	70 - 130	2	20
Acetochlor	1.97	2.03		ug/L		103	70 - 130	4	20
Alachlor	1.97	2.05		ug/L		104	70 - 130	3	20
alpha-BHC	1.97	1.98		ug/L		101	70 - 130	2	20
alpha-Chlordane	1.97	2.02		ug/L		103	70 - 130	3	20
Anthracene	1.97	1.89		ug/L		96	70 - 130	2	20

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

Lab Sample ID: LCSD 380-135861/24-A

Matrix: Water

Analysis Batch: 136161

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 135861

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
Atrazine	1.97	2.12		ug/L		108	70 - 130	2	20
Benz(a)anthracene	1.97	2.10		ug/L		107	70 - 130	5	20
Benzo[a]pyrene	1.97	2.10		ug/L		107	70 - 130	2	20
Benzo[b]fluoranthene	1.97	2.16		ug/L		110	70 - 130	1	20
Benzo[g,h,i]perylene	1.97	2.16		ug/L		110	70 - 130	3	20
Benzo[k]fluoranthene	1.97	2.17		ug/L		110	70 - 130	1	20
beta-BHC	1.97	2.00		ug/L		102	70 - 130	2	20
Bis(2-ethylhexyl) phthalate	1.97	2.20		ug/L		112	70 - 130	3	20
Bromacil	1.97	2.09		ug/L		106	70 - 130	3	20
Butachlor	1.97	2.28		ug/L		116	70 - 130	5	20
Butylbenzylphthalate	1.97	2.14		ug/L		109	70 - 130	5	20
Chlorobenzilate	1.97	2.02		ug/L		103	70 - 130	4	20
Chloroneb	1.97	1.93		ug/L		98	70 - 130	1	20
Chlorothalonil (Draconil, Bravo)	1.97	2.33		ug/L		119	70 - 130	5	20
Chlorpyrifos	1.97	2.09		ug/L		106	70 - 130	3	20
Chrysene	1.97	2.01		ug/L		102	70 - 130	0	20
delta-BHC	1.97	1.94		ug/L		99	70 - 130	1	20
Di(2-ethylhexyl)adipate	1.97	2.21		ug/L		112	70 - 130	7	20
Dibenz(a,h)anthracene	1.97	2.09		ug/L		106	70 - 130	5	20
Diclorvos (DDVP)	1.97	2.12		ug/L		108	70 - 130	5	20
Dieldrin	1.97	1.98		ug/L		101	70 - 130	2	20
Diethylphthalate	1.97	2.09		ug/L		106	70 - 130	3	20
Dimethylphthalate	1.97	2.06		ug/L		105	70 - 130	2	20
Di-n-butyl phthalate	3.94	4.24		ug/L		108	70 - 130	2	20
Di-n-octyl phthalate	1.97	2.05		ug/L		104	70 - 130	3	20
Endosulfan I (Alpha)	1.97	1.98		ug/L		101	70 - 130	4	20
Endosulfan II (Beta)	1.97	2.07		ug/L		105	70 - 130	4	20
Endosulfan sulfate	1.97	2.08		ug/L		106	70 - 130	1	20
Endrin	1.97	2.15		ug/L		109	70 - 130	4	20
Endrin aldehyde	1.97	2.00		ug/L		101	60 - 130	3	20
EPTC	1.97	2.09		ug/L		106	70 - 130	2	20
Fluoranthene	1.97	2.14		ug/L		109	70 - 130	4	20
Fluorene	1.97	2.02		ug/L		103	70 - 130	1	20
gamma-Chlordane	1.97	2.05		ug/L		104	70 - 130	4	20
Heptachlor	1.97	2.18		ug/L		111	70 - 130	4	20
Heptachlor epoxide (isomer B)	1.97	2.09		ug/L		106	70 - 130	4	20
Hexachlorobenzene	1.97	1.90		ug/L		97	70 - 130	4	20
Hexachlorocyclopentadiene	1.97	1.92		ug/L		97	70 - 130	6	20
Indeno[1,2,3-cd]pyrene	1.97	2.14		ug/L		109	70 - 130	5	20
Isophorone	1.97	2.06		ug/L		105	70 - 130	4	20
Lindane	1.97	1.99		ug/L		101	70 - 130	1	20
Malathion	1.97	2.07		ug/L		105	70 - 130	3	20
Methoxychlor	1.97	2.09		ug/L		106	70 - 130	2	20
Metolachlor	1.97	2.14		ug/L		109	70 - 130	2	20
Molinate	1.97	2.13		ug/L		108	70 - 130	3	20
Naphthalene	1.97	2.02		ug/L		103	70 - 130	0	20
Parathion	1.97	2.22		ug/L		113	70 - 130	5	20
Pendimethalin (Penoxaline)	1.97	2.18		ug/L		111	70 - 130	8	20
Phenanthrene	1.97	2.05		ug/L		104	70 - 130	1	20

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

**Lab Sample ID: LCSD 380-135861/24-A**

**Matrix: Water**

**Analysis Batch: 136161**

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

**Prep Type: Total/NA**

**Prep Batch: 135861**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Propachlor	1.97	2.11		ug/L		107	70 - 130	2	20	
Pyrene	1.97	2.14		ug/L		109	70 - 130	3	20	
Simazine	1.97	2.13		ug/L		108	70 - 130	4	20	
Terbacil	1.97	2.26		ug/L		115	70 - 130	3	20	
Terbutylazine	1.97	2.11		ug/L		107	70 - 130	2	20	
Thiobencarb	1.97	2.26		ug/L		115	70 - 130	3	20	
trans-Nonachlor	1.97	2.03		ug/L		103	70 - 130	5	20	
Trifluralin	1.97	1.96		ug/L		100	70 - 130	8	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	105		70 - 130

**Lab Sample ID: MRL 380-135861/22-A**

**Matrix: Water**

**Analysis Batch: 136161**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 135861**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec	
							Limits	RPD
1-Methylnaphthalene	0.0984	0.102		ug/L		103	50 - 150	
2,4'-DDD	0.0984	0.0878	J	ug/L		89	50 - 150	
2,4'-DDE	0.0984	0.0967	J	ug/L		98	50 - 150	
2,4'-DDT	0.0984	0.0988		ug/L		100	50 - 150	
2,4-Dinitrotoluene	0.0984	0.108		ug/L		109	50 - 150	
2,6-Dinitrotoluene	0.0984	0.101		ug/L		102	50 - 150	
2-Methylnaphthalene	0.0984	0.0973	J	ug/L		99	50 - 150	
4,4'-DDD	0.0984	0.100		ug/L		102	50 - 150	
4,4'-DDE	0.0984	0.0947	J	ug/L		96	50 - 150	
4,4'-DDT	0.0984	0.101		ug/L		103	50 - 150	
Acenaphthene	0.0984	0.0871	J	ug/L		89	50 - 150	
Acenaphthylene	0.0984	0.0876	J	ug/L		89	50 - 150	
Acetochlor	0.0984	0.114		ug/L		115	50 - 150	
Alachlor	0.0492	0.0484	J	ug/L		98	50 - 150	
alpha-BHC	0.0984	0.107		ug/L		109	50 - 150	
alpha-Chlordane	0.0246	<0.029		ug/L		95	50 - 150	
Anthracene	0.0197	0.0211		ug/L		107	50 - 150	
Atrazine	0.0492	0.0515		ug/L		105	50 - 150	
Benz(a)anthracene	0.0492	0.0520		ug/L		106	50 - 150	
Benzo[a]pyrene	0.0197	0.0230		ug/L		117	50 - 150	
Benzo[b]fluoranthene	0.0197	0.0190	J	ug/L		97	50 - 150	
Benzo[g,h,i]perylene	0.0492	0.0415	J	ug/L		84	50 - 150	
Benzo[k]fluoranthene	0.0197	<0.017		ug/L		85	50 - 150	
beta-BHC	0.0984	0.118		ug/L		119	50 - 150	
Bis(2-ethylhexyl) phthalate	0.591	0.497	J	ug/L		84	50 - 150	
Bromacil	0.0984	0.104		ug/L		106	50 - 150	
Butachlor	0.0492	0.0484	J	ug/L		98	50 - 150	
Butylbenzylphthalate	0.492	0.486	J	ug/L		99	50 - 150	
Chlorobenzilate	0.0984	0.0822	J	ug/L		84	50 - 150	

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

Lab Sample ID: MRL 380-135861/22-A

Matrix: Water

Analysis Batch: 136161

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 135861

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
Chloroneb	0.0984	0.109		ug/L		111	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0984	0.0892	J	ug/L		91	50 - 150
Chlorpyrifos	0.0492	0.0448	J	ug/L		91	50 - 150
Chrysene	0.0197	0.0209		ug/L		106	50 - 150
delta-BHC	0.0984	0.110		ug/L		112	50 - 150
Di(2-ethylhexyl)adipate	0.591	0.575	J	ug/L		97	50 - 150
Dibenz(a,h)anthracene	0.0492	0.0443	J	ug/L		90	50 - 150
Diclorvos (DDVP)	0.0492	0.0583		ug/L		119	50 - 150
Dieldrin	0.00984	0.00775	J	ug/L		79	50 - 150
Diethylphthalate	0.492	0.520		ug/L		106	50 - 150
Dimethylphthalate	0.492	0.520		ug/L		106	50 - 150
Di-n-butyl phthalate	0.492	0.586	J	ug/L		119	49 - 243
Di-n-octyl phthalate	0.0984	0.0808	J	ug/L		82	50 - 150
Endosulfan I (Alpha)	0.0984	0.116		ug/L		118	50 - 150
Endosulfan II (Beta)	0.0984	0.0990		ug/L		101	50 - 150
Endosulfan sulfate	0.0984	0.0974	J	ug/L		99	50 - 150
Endrin	0.00984	0.0129		ug/L		132	50 - 150
Endrin aldehyde	0.0984	0.105		ug/L		107	50 - 150
EPTC	0.0984	0.0963	J	ug/L		98	50 - 150
Fluoranthene	0.0984	0.0956	J	ug/L		97	50 - 150
Fluorene	0.0492	<0.049		ug/L		99	50 - 150
gamma-Chlordane	0.0246	0.0244	J	ug/L		99	50 - 150
Heptachlor	0.00984	0.0107		ug/L		109	50 - 150
Heptachlor epoxide (isomer B)	0.00984	0.0122		ug/L		124	50 - 150
Hexachlorobenzene	0.0492	0.0455	J	ug/L		92	50 - 150
Hexachlorocyclopentadiene	0.0492	0.0442	J	ug/L		90	50 - 150
Indeno[1,2,3-cd]pyrene	0.0492	0.0457	J	ug/L		93	50 - 150
Isophorone	0.0984	0.108		ug/L		110	50 - 150
Lindane	0.00984	0.00975	J	ug/L		99	50 - 150
Malathion	0.0984	0.0988		ug/L		100	50 - 150
Methoxychlor	0.0492	0.0606		ug/L		123	50 - 150
Metolachlor	0.0492	0.0533		ug/L		108	50 - 150
Molinate	0.0984	0.101		ug/L		103	50 - 150
Naphthalene	0.0984	0.0883	J	ug/L		90	50 - 150
Parathion	0.0984	0.0903	J	ug/L		92	50 - 150
Pendimethalin (Penoxaline)	0.0984	0.0916	J	ug/L		93	50 - 150
Phenanthrene	0.0394	0.0348	J	ug/L		88	50 - 150
Propachlor	0.0492	0.0514		ug/L		104	50 - 150
Pyrene	0.0492	0.0477	J	ug/L		97	50 - 150
Simazine	0.0492	0.0459	J	ug/L		93	50 - 150
Terbacil	0.0984	0.107		ug/L		108	50 - 150
Terbutylazine	0.0984	0.101		ug/L		103	50 - 150
Thiobencarb	0.0984	0.102		ug/L		104	50 - 150
trans-Nonachlor	0.0246	<0.026		ug/L		95	50 - 150
Trifluralin	0.0984	0.0973	J	ug/L		99	50 - 150

Surrogate	MRL	MRL	%Recovery	Qualifier	Limits
2-Nitro-m-xylene			96		70 - 130

# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

**Lab Sample ID: MRL 380-135861/22-A**  
**Matrix: Water**  
**Analysis Batch: 136161**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 135861**

Surrogate	MRL %Recovery	MRL Qualifier	Limits
Perylene-d12	99		70 - 130
Triphenylphosphate	99		70 - 130

**Lab Sample ID: 380-135155-I-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 136161**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 135861**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.95	1.84		ug/L		94	70 - 130
2,4'-DDD	<0.097		1.95	2.03		ug/L		104	70 - 130
2,4'-DDE	<0.097		1.95	1.95		ug/L		100	70 - 130
2,4'-DDT	<0.097		1.95	2.05		ug/L		105	70 - 130
2,4-Dinitrotoluene	<0.097		1.95	2.07		ug/L		106	70 - 130
2,6-Dinitrotoluene	<0.097		1.95	2.16		ug/L		111	70 - 130
2-Methylnaphthalene	<0.097		1.95	1.89		ug/L		97	70 - 130
4,4'-DDD	<0.097		1.95	2.05		ug/L		105	70 - 130
4,4'-DDE	<0.097		1.95	1.95		ug/L		100	70 - 130
4,4'-DDT	<0.097		1.95	1.93		ug/L		99	70 - 130
Acenaphthene	<0.097		1.95	2.00		ug/L		102	70 - 130
Acenaphthylene	<0.097		1.95	1.92		ug/L		98	70 - 130
Acetochlor	<0.097		1.95	1.95		ug/L		100	70 - 130
Alachlor	<0.048		1.95	1.99		ug/L		102	70 - 130
alpha-BHC	<0.097		1.95	1.93		ug/L		99	70 - 130
alpha-Chlordane	<0.048		1.95	1.89		ug/L		97	70 - 130
Anthracene	<0.019	F1	1.95	0.978	F1	ug/L		50	70 - 130
Atrazine	<0.048		1.95	2.10		ug/L		108	70 - 130
Benz(a)anthracene	<0.048		1.95	1.87		ug/L		96	70 - 130
Benzo[a]pyrene	<0.019		1.95	1.86		ug/L		95	70 - 130
Benzo[b]fluoranthene	<0.019		1.95	2.20		ug/L		113	70 - 130
Benzo[g,h,i]perylene	<0.048		1.95	2.04		ug/L		105	70 - 130
Benzo[k]fluoranthene	<0.019		1.95	2.12		ug/L		109	70 - 130
beta-BHC	<0.097		1.95	1.98		ug/L		102	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.95	2.00		ug/L		103	70 - 130
Bromacil	<0.097		1.95	2.07		ug/L		106	70 - 130
Butachlor	<0.048		1.95	2.22		ug/L		114	70 - 130
Butylbenzylphthalate	<0.48		1.95	2.08		ug/L		106	70 - 130
Chlorobenzilate	<0.097		1.95	1.97		ug/L		101	70 - 130
Chloroneb	<0.097		1.95	1.92		ug/L		98	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.95	2.07		ug/L		106	70 - 130
Chlorpyrifos	<0.048		1.95	2.13		ug/L		109	70 - 130
Chrysene	<0.019		1.95	2.02		ug/L		104	70 - 130
delta-BHC	<0.097		1.95	1.88		ug/L		96	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.95	1.93		ug/L		99	70 - 130
Dibenz(a,h)anthracene	<0.048		1.95	1.88		ug/L		97	70 - 130
Diclorvos (DDVP)	<0.048		1.95	2.08		ug/L		106	70 - 130
Dieldrin	<0.0097		1.95	1.94		ug/L		99	70 - 130
Diethylphthalate	<0.48		1.95	2.04		ug/L		104	70 - 130
Dimethylphthalate	<0.48		1.95	2.03		ug/L		104	70 - 130

# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

Lab Sample ID: 380-135155-I-1-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 136161

Prep Batch: 135861

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Di-n-butyl phthalate	<0.97		3.90	4.15		ug/L		106	70 - 130
Di-n-octyl phthalate	<0.097		1.95	1.83		ug/L		94	70 - 130
Endosulfan I (Alpha)	<0.097		1.95	1.90		ug/L		97	70 - 130
Endosulfan II (Beta)	<0.097		1.95	1.96		ug/L		100	70 - 130
Endosulfan sulfate	<0.097		1.95	2.00		ug/L		103	70 - 130
Endrin	<0.0097		1.95	2.03		ug/L		104	70 - 130
Endrin aldehyde	<0.097		1.95	1.84		ug/L		94	60 - 130
EPTC	<0.097		1.95	2.05		ug/L		105	70 - 130
Fluoranthene	<0.097		1.95	2.10		ug/L		107	70 - 130
Fluorene	<0.048		1.95	2.00		ug/L		102	70 - 130
gamma-Chlordane	<0.048		1.95	1.95		ug/L		100	70 - 130
Heptachlor	<0.0097		1.95	2.15		ug/L		110	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.95	2.00		ug/L		103	70 - 130
Hexachlorobenzene	<0.048		1.95	1.89		ug/L		97	70 - 130
Hexachlorocyclopentadiene	<0.048		1.95	1.88		ug/L		96	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.95	2.04		ug/L		105	70 - 130
Isophorone	<0.097		1.95	2.04		ug/L		104	70 - 130
Lindane	<0.0097		1.95	1.98		ug/L		102	70 - 130
Malathion	<0.097		1.95	2.01		ug/L		103	70 - 130
Methoxychlor	<0.048		1.95	2.16		ug/L		111	70 - 130
Metolachlor	<0.048		1.95	2.08		ug/L		106	70 - 130
Molinate	<0.097		1.95	2.08		ug/L		107	70 - 130
Naphthalene	<0.097		1.95	1.99		ug/L		102	70 - 130
Parathion	<0.097		1.95	2.19		ug/L		113	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.95	2.12		ug/L		109	70 - 130
Phenanthrene	<0.039		1.95	2.02		ug/L		104	70 - 130
Propachlor	<0.048		1.95	2.10		ug/L		107	70 - 130
Pyrene	<0.048		1.95	2.09		ug/L		107	70 - 130
Simazine	<0.048		1.95	2.14		ug/L		109	70 - 130
Terbacil	<0.097		1.95	2.19		ug/L		112	70 - 130
Terbutylazine	<0.097		1.95	2.09		ug/L		107	70 - 130
Thiobencarb	<0.097		1.95	2.21		ug/L		113	70 - 130
trans-Nonachlor	<0.048		1.95	1.92		ug/L		99	70 - 130
Trifluralin	<0.097		1.95	1.95		ug/L		100	70 - 130

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

Lab Sample ID: 380-135155-I-2-A DU

Client Sample ID: Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 136161

Prep Batch: 135861

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				
1-Methylnaphthalene	<0.097		<0.097		ug/L		NC	20
2,4'-DDD	<0.097		<0.097		ug/L		NC	20
2,4'-DDE	<0.097		<0.097		ug/L		NC	20

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

**Lab Sample ID: 380-135155-1-2-A DU**

**Matrix: Water**

**Analysis Batch: 136161**

**Client Sample ID: Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 135861**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
2,4'-DDT	<0.097		<0.097		ug/L		NC	20
2,4-Dinitrotoluene	<0.097		<0.097		ug/L		NC	20
2,6-Dinitrotoluene	<0.097		<0.097		ug/L		NC	20
2-Methylnaphthalene	<0.097		<0.097		ug/L		NC	20
4,4'-DDD	<0.097		<0.097		ug/L		NC	20
4,4'-DDE	<0.097		<0.097		ug/L		NC	20
4,4'-DDT	<0.097		<0.097		ug/L		NC	20
Acenaphthene	<0.097		<0.097		ug/L		NC	20
Acenaphthylene	<0.097		<0.097		ug/L		NC	20
Acetochlor	<0.097		<0.097		ug/L		NC	20
Alachlor	<0.049		<0.048		ug/L		NC	20
alpha-BHC	<0.097		<0.097		ug/L		NC	20
alpha-Chlordane	<0.049		<0.048		ug/L		NC	20
Anthracene	<0.019		<0.019		ug/L		NC	20
Atrazine	<0.049		<0.048		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.048		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.048		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.019		ug/L		NC	20
beta-BHC	<0.097		<0.097		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Bromacil	<0.097		<0.097		ug/L		NC	20
Butachlor	<0.049		<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.48		ug/L		NC	20
Chlorobenzilate	<0.097		<0.097		ug/L		NC	20
Chloroneb	<0.097		<0.097		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.097		ug/L		NC	20
Chlorpyrifos	<0.049		<0.048		ug/L		NC	20
Chrysene	<0.019		<0.019		ug/L		NC	20
delta-BHC	<0.097		<0.097		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.048		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.048		ug/L		NC	20
Dieldrin	<0.0097		<0.0097		ug/L		NC	20
Diethylphthalate	<0.49		<0.48		ug/L		NC	20
Dimethylphthalate	<0.49		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.097		ug/L		NC	20
Endrin	<0.0097		<0.0097		ug/L		NC	20
Endrin aldehyde	<0.097		<0.097		ug/L		NC	20
EPTC	<0.097		<0.097		ug/L		NC	20
Fluoranthene	<0.097		<0.097		ug/L		NC	20
Fluorene	<0.049		<0.048		ug/L		NC	20
gamma-Chlordane	<0.049		<0.048		ug/L		NC	20
Heptachlor	<0.0097		<0.0097		ug/L		NC	20

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## QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

Lab Sample ID: 380-135155-1-2-A DU

Matrix: Water

Analysis Batch: 136161

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 135861

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Heptachlor epoxide (isomer B)	<0.0097		<0.0097		ug/L		NC	20
Hexachlorobenzene	<0.049		<0.048		ug/L		NC	20
Hexachlorocyclopentadiene	<0.049		<0.048		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.049		<0.048		ug/L		NC	20
Isophorone	<0.097		<0.097		ug/L		NC	20
Lindane	<0.0097		<0.0097		ug/L		NC	20
Malathion	<0.097		<0.097		ug/L		NC	20
Methoxychlor	<0.049		<0.048		ug/L		NC	20
Metolachlor	<0.049		<0.048		ug/L		NC	20
Molinate	<0.097		<0.097		ug/L		NC	20
Naphthalene	<0.097		<0.097		ug/L		NC	20
Parathion	<0.097		<0.097		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.097		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.049		<0.048		ug/L		NC	20
Pyrene	<0.049		<0.048		ug/L		NC	20
Simazine	<0.049		<0.048		ug/L		NC	20
Terbacil	<0.097		<0.097		ug/L		NC	20
Terbutylazine	<0.097		<0.097		ug/L		NC	20
Thiobencarb	<0.097		<0.097		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.19		ug/L		NC	20
trans-Nonachlor	<0.049		<0.048		ug/L		NC	20
Trifluralin	<0.097		<0.097		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	100		70 - 130

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

Lab Sample ID: MB 570-534554/1-A

Matrix: Water

Analysis Batch: 538446

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 534554

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L			N/A	02/17/25 05:09	02/26/25 12:22	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	79		33 - 139	02/17/25 05:09	02/26/25 12:22	1
2-Fluorobiphenyl (Surr)	78		33 - 126	02/17/25 05:09	02/26/25 12:22	1
2-Fluorophenol (Surr)	49		12 - 120	02/17/25 05:09	02/26/25 12:22	1
Nitrobenzene-d5 (Surr)	90		36 - 120	02/17/25 05:09	02/26/25 12:22	1
Phenol-d6 (Surr)	28		10 - 120	02/17/25 05:09	02/26/25 12:22	1
p-Terphenyl-d14 (Surr)	79		47 - 131	02/17/25 05:09	02/26/25 12:22	1

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# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

**Lab Sample ID: MB 570-534554/1-A**  
**Matrix: Water**  
**Analysis Batch: 535675**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 534554**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
2-Methylnaphthalene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Acenaphthene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Acenaphthylene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Anthracene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Benzo[a]anthracene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Benzo[a]pyrene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Chrysene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Fluoranthene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Fluorene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Naphthalene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Phenanthrene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1
Pyrene	<0.20		0.20	ug/L		02/17/25 05:09	02/19/25 11:44	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	86		28 - 127	02/17/25 05:09	02/19/25 11:44	1
2-Fluorobiphenyl (Surr)	74		31 - 120	02/17/25 05:09	02/19/25 11:44	1
2-Fluorophenol (Surr)	49		17 - 120	02/17/25 05:09	02/19/25 11:44	1
Nitrobenzene-d5 (Surr)	85		27 - 120	02/17/25 05:09	02/19/25 11:44	1
Phenol-d6 (Surr)	31		10 - 120	02/17/25 05:09	02/19/25 11:44	1
p-Terphenyl-d14 (Surr)	81		45 - 120	02/17/25 05:09	02/19/25 11:44	1

**Lab Sample ID: LCS 570-534554/2-A**  
**Matrix: Water**  
**Analysis Batch: 535675**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 534554**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	20.0	15.0		ug/L		75	47 - 120
2-Methylnaphthalene	20.0	16.9		ug/L		84	43 - 120
Acenaphthene	20.0	17.7		ug/L		89	60 - 132
Acenaphthylene	20.0	17.2		ug/L		86	54 - 126
Anthracene	20.0	18.3		ug/L		91	43 - 120
Benzo[a]anthracene	20.0	18.3		ug/L		92	42 - 133
Benzo[a]pyrene	20.0	17.4		ug/L		87	32 - 148
Benzo[b]fluoranthene	20.0	17.6		ug/L		88	42 - 140
Benzo[g,h,i]perylene	20.0	16.1		ug/L		80	1 - 195
Benzo[k]fluoranthene	20.0	17.8		ug/L		89	25 - 146
Chrysene	20.0	17.6		ug/L		88	44 - 140
Dibenz(a,h)anthracene	20.0	16.7		ug/L		83	1 - 200
Fluoranthene	20.0	19.0		ug/L		95	43 - 121
Fluorene	20.0	18.3		ug/L		91	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	16.7		ug/L		84	1 - 151
Naphthalene	20.0	15.4		ug/L		77	36 - 120

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

Lab Sample ID: LCS 570-534554/2-A

Matrix: Water

Analysis Batch: 535675

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 534554

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Phenanthrene	20.0	17.8		ug/L		89	65 - 120
Pyrene	20.0	18.5		ug/L		92	70 - 120

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	90		28 - 127
2-Fluorobiphenyl (Surr)	80		31 - 120
2-Fluorophenol (Surr)	54		17 - 120
Nitrobenzene-d5 (Surr)	80		27 - 120
Phenol-d6 (Surr)	35		10 - 120
p-Terphenyl-d14 (Surr)	84		45 - 120

Lab Sample ID: LCSD 570-534554/3-A

Matrix: Water

Analysis Batch: 535675

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 534554

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
		Result	Qualifier						
1-Methylnaphthalene	20.0	15.0		ug/L		75	47 - 120	0	20
2-Methylnaphthalene	20.0	16.8		ug/L		84	43 - 120	1	20
Acenaphthene	20.0	18.9		ug/L		94	60 - 132	6	29
Acenaphthylene	20.0	18.0		ug/L		90	54 - 126	5	45
Anthracene	20.0	19.6		ug/L		98	43 - 120	7	40
Benzo[a]anthracene	20.0	19.3		ug/L		97	42 - 133	5	32
Benzo[a]pyrene	20.0	19.7		ug/L		99	32 - 148	12	43
Benzo[b]fluoranthene	20.0	19.1		ug/L		96	42 - 140	8	43
Benzo[g,h,i]perylene	20.0	19.7		ug/L		98	1 - 195	20	61
Benzo[k]fluoranthene	20.0	20.0		ug/L		100	25 - 146	12	38
Chrysene	20.0	18.8		ug/L		94	44 - 140	7	53
Dibenz(a,h)anthracene	20.0	19.8		ug/L		99	1 - 200	17	75
Fluoranthene	20.0	19.5		ug/L		97	43 - 121	2	40
Fluorene	20.0	18.8		ug/L		94	70 - 120	3	23
Indeno[1,2,3-cd]pyrene	20.0	19.8		ug/L		99	1 - 151	17	60
Naphthalene	20.0	16.0		ug/L		80	36 - 120	4	39
Phenanthrene	20.0	19.2		ug/L		96	65 - 120	8	24
Pyrene	20.0	20.5		ug/L		102	70 - 120	10	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	91		28 - 127
2-Fluorobiphenyl (Surr)	84		31 - 120
2-Fluorophenol (Surr)	55		17 - 120
Nitrobenzene-d5 (Surr)	80		27 - 120
Phenol-d6 (Surr)	33		10 - 120
p-Terphenyl-d14 (Surr)	88		45 - 120

# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

**Lab Sample ID: MB 570-536151/10**  
**Matrix: Water**  
**Analysis Batch: 536151**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			02/20/25 14:45	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		38 - 134				02/20/25 14:45	1

**Lab Sample ID: LCS 570-536151/1008**  
**Matrix: Water**  
**Analysis Batch: 536151**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	400	432		ug/L		108	78 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	92		38 - 134				

**Lab Sample ID: LCSD 570-536151/9**  
**Matrix: Water**  
**Analysis Batch: 536151**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (C4-C13)	400	413		ug/L		103	78 - 120	4	10
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	90		38 - 134						

**Lab Sample ID: MRL 570-536151/1003**  
**Matrix: Water**  
**Analysis Batch: 536151**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	10.0	10.8		ug/L		108	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
4-Bromofluorobenzene (Surr)	82		38 - 134				

**Lab Sample ID: 380-135325-C-1 MS**  
**Matrix: Water**  
**Analysis Batch: 536151**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	<10		400	403		ug/L		101	68 - 122
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	92		38 - 134						

Euromins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-135687-1  
SDG: Weekly

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

**Lab Sample ID: 380-135325-C-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 536151**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	424		ug/L		106	68 - 122	5	18
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
4-Bromofluorobenzene (Surr)	95		38 - 134								

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

**Lab Sample ID: MB 570-534854/1-A**  
**Matrix: Water**  
**Analysis Batch: 535379**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 534854**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		02/17/25 15:29	02/18/25 19:15	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		02/17/25 15:29	02/18/25 19:15	1
C8-C18	<25		25	ug/L		02/17/25 15:29	02/18/25 19:15	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
n-Octacosane (Surr)	103		60 - 130			02/17/25 15:29	02/18/25 19:15	1

**Lab Sample ID: LCS 570-534854/2-A**  
**Matrix: Water**  
**Analysis Batch: 535379**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 534854**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1540		ug/L		96	56 - 127
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
n-Octacosane (Surr)	95		60 - 130				

**Lab Sample ID: LCSD 570-534854/3-A**  
**Matrix: Water**  
**Analysis Batch: 535379**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 534854**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	1600	1600		ug/L		100	56 - 127	4	23
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
n-Octacosane (Surr)	100		60 - 130						

**Lab Sample ID: MRL 570-534854/4-A**  
**Matrix: Water**  
**Analysis Batch: 537693**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 534854**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	0.0200	0.0241	J	mg/L		121	50 - 150

# QC Sample Results

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

Job ID: 380-135687-1  
 SDG: Weekly

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

**Lab Sample ID: MRL 570-534854/4-A**  
**Matrix: Water**  
**Analysis Batch: 537693**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 534854**

<i>Surrogate</i>	<i>%Recovery</i>	<i>MRL MRL Qualifier</i>	<i>Limits</i>
<i>n-Octacosane (Surr)</i>	97		60 - 130

**Lab Sample ID: 380-135325-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 535379**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 534854**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
C10-C28	<26		1660	1620		ug/L		98	70 - 130

  

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
<i>n-Octacosane (Surr)</i>	99		60 - 130

**Lab Sample ID: 380-135325-B-1-B MSD**  
**Matrix: Water**  
**Analysis Batch: 535379**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 534854**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
C10-C28	<26		1630	1550		ug/L		95	70 - 130	4	20

  

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
<i>n-Octacosane (Surr)</i>	96		60 - 130

# QC Association Summary

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

Job ID: 380-135687-1  
SDG: Weekly

## GC/MS Semi VOA

### Prep Batch: 135861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-135687-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
MB 380-135861/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-135861/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-135861/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-135861/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-135155-I-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-135155-I-2-A DU	Duplicate	Total/NA	Water	525.2	

### Analysis Batch: 136161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-135687-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	135861
MB 380-135861/21-A	Method Blank	Total/NA	Water	525.2	135861
LCS 380-135861/23-A	Lab Control Sample	Total/NA	Water	525.2	135861
LCSD 380-135861/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	135861
MRL 380-135861/22-A	Lab Control Sample	Total/NA	Water	525.2	135861
380-135155-I-1-A MS	Matrix Spike	Total/NA	Water	525.2	135861
380-135155-I-2-A DU	Duplicate	Total/NA	Water	525.2	135861

### Prep Batch: 534554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-135687-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	
MB 570-534554/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-534554/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-534554/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

### Analysis Batch: 535675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-534554/1-A	Method Blank	Total/NA	Water	625.1 SIM	534554
LCS 570-534554/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	534554
LCSD 570-534554/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	534554

### Analysis Batch: 538036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-135687-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1 SIM	534554

### Analysis Batch: 538446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-135687-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	534554
MB 570-534554/1-A	Method Blank	Total/NA	Water	625.1	534554

## GC VOA

### Analysis Batch: 536151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-135687-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
380-135687-2	TRIP BLANK	Total/NA	Water	8015B GRO LL	
MB 570-536151/10	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-536151/1008	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-536151/9	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-536151/1003	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-135325-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	

# QC Association Summary

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

Job ID: 380-135687-1  
 SDG: Weekly

## GC VOA (Continued)

### Analysis Batch: 536151 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-135325-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

## GC Semi VOA

### Prep Batch: 534854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-135687-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	3510C	
MB 570-534854/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-534854/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-534854/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-534854/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-135325-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-135325-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

### Analysis Batch: 535379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-534854/1-A	Method Blank	Total/NA	Water	8015B	534854
LCS 570-534854/2-A	Lab Control Sample	Total/NA	Water	8015B	534854
LCSD 570-534854/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	534854
380-135325-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	534854
380-135325-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	534854

### Analysis Batch: 537693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-135687-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B	534854
MRL 570-534854/4-A	Lab Control Sample	Total/NA	Water	8015B	534854

# Lab Chronicle

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

Job ID: 380-135687-1  
SDG: Weekly

**Client Sample ID: HALAWA SHAFT VIEWING POOL**

**Lab Sample ID: 380-135687-1**

Date Collected: 02/11/25 10:00

Matrix: Water

Date Received: 02/13/25 09:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			135861	IQ42	EA POM	02/17/25 13:54
Total/NA	Analysis	525.2		1	136161	UPAC	EA POM	02/18/25 16:12
Total/NA	Prep	625.1			534554	H1SH	EET CAL 4	02/17/25 05:09
Total/NA	Analysis	625.1		1	538446	CG	EET CAL 4	02/26/25 12:45
Total/NA	Prep	625.1			534554	H1SH	EET CAL 4	02/17/25 05:09
Total/NA	Analysis	625.1 SIM		1	538036	PQS1	EET CAL 4	02/25/25 17:37
Total/NA	Analysis	8015B GRO LL		1	536151	A9VE	EET CAL 4	02/20/25 22:09
Total/NA	Prep	3510C			534854	H6FE	EET CAL 4	02/17/25 15:29
Total/NA	Analysis	8015B		1	537693	H6FE	EET CAL 4	02/25/25 02:25

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 380-135687-2**

Date Collected: 02/11/25 10:00

Matrix: Water

Date Received: 02/13/25 09:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	536151	A9VE	EET CAL 4	02/20/25 20:02

**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: 380-135687-1  
 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
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
Arizona	State	AZ0830	11-16-25
Arkansas DEQ	State	88-01672	07-02-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	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: 380-135687-1  
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

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# Method Summary

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

Job ID: 380-135687-1  
SDG: Weekly

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

#### Protocol References:

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

EPA = US Environmental Protection Agency

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

#### Laboratory References:

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

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

# Sample Summary

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

Job ID: 380-135687-1  
SDG: Weekly

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-135687-1	HALAWA SHAFT VIEWING POOL	Water	02/11/25 10:00	02/13/25 09:56
380-135687-2	TRIP BLANK	Water	02/11/25 10:00	02/13/25 09:56

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# Chain of Custody Record

<b>Client Information</b> Client Contact: Ryan Greer Dr. Ron Fenslemacher 808-748-5940 City & County of Honolulu			Lab PM: Arada, Rachelle E-Mail: Rachelle.Arada@et.eurofins.com Camer Tracking No(s): 380-28005-2757 1 State of Origin: HI Page: 1 of 1 Job#:			
<b>Address:</b> 630 South Beretania Street Chemistry Lab Honolulu, HI 96843 Phone: 808-748-5091(Tel) Email: RFENSTEMACHER@hbws.org			PWSID: Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: C20525101 exp 05312023 WO #: 38001111 Project #: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill Site: Hawaii			
<b>Sample Identification</b> Halawa Shaft Viewing Pool  TRIP BLANK			<b>Sample Date</b> 2/11/25	<b>Sample Time</b> 1000	<b>Sample Type</b> (C=Comp, G=grab) G	<b>Matrix</b> (W=water, S=solid, O=wast/oil, BT=tissue, A=air) Water
Possible Hazard Identification <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			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			
<b>Analysis Requested</b> 8016B_GRO_LL (MOD) GRO 8016B_DRO_LL_CS - HNL Ranges C10-C24/C24-C36/C8-C18 826.2_PREC - (MOD) 826plus Plus TICs 837_1_DW_PREC - 837 1 Full List 833 - All Analytes			Total Number of containers: Special Instructions/Note: 380-135687 COC			
Preservation Codes: R - NaHSO4 RA - NaHSO4/HCl Q - Na2SO3 QA - Na2SO3/HCl Y - Trizma I - NH4 Acetate			Other:   			
Deliverable Requested: I, II, III, IV Other (specify)			Special Instructions/QC Requirements			
Empty Kit Relinquished by			Method of Shipment:			
Relinquished by Relinquished by Relinquished by			Received by Received by Received by			
Date: 2/12/25 1300 Date: 2/13/25 956 Date:			Date: 2/13/25 956 Date:			
Company: HBWS Company: Company:			Company: HBWS Company: Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No			Cooler Temperature(s) °C and Other Remarks: (631A) 3 263-35 ice-frozen			



**Eurofins Eaton Analytical Pomona**

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

**Chain of Custody Record**



eurofins | Env

Loc: 380  
**135687**

<b>Client Information (Sub Contract Lab)</b>			Sampler: N/A	Lab PM: Arada, Rachelle	Carrier Tracking No(s): N/A	COC No: 380-191051.1																															
Client Contact: Shipping/Receiving			Phone: N/A	E-Mail: Rachelle.Arada@et.eurofins.com	State of Origin: Hawaii	Page: Page 1 of 1																															
Company: Eurofins Environment Testing Southwest,			Accreditations Required (See note): State - Hawaii			Job #: 380-135687-1																															
Address: 2841 Dow Avenue, Suite 100,			Due Date Requested: 2/26/2025		<b>Analysis Requested</b>																																
City: Tustin			TAT Requested (days): N/A																																		
State, Zip: CA, 92780			PO #: N/A		<table border="1"> <tr> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">Field Filtered Sample (Yes or No)</td> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">Perform MS/MSD (Yes or No)</td> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">801BB_DRO_LL_CS3510C_LL_HNL Ranges: C10-C24/C24-C36/C8-C18</td> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">801BB_GRO_LLJ5030C (MOD) GRO</td> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">626.1_SIM625_Prep (MOD) Extended PAH List</td> <td colspan="12" rowspan="4" style="text-align: center;">Total Number of containers</td> </tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> </table>			Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	801BB_DRO_LL_CS3510C_LL_HNL Ranges: C10-C24/C24-C36/C8-C18	801BB_GRO_LLJ5030C (MOD) GRO	626.1_SIM625_Prep (MOD) Extended PAH List	Total Number of containers																								
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	801BB_DRO_LL_CS3510C_LL_HNL Ranges: C10-C24/C24-C36/C8-C18	801BB_GRO_LLJ5030C (MOD) GRO	626.1_SIM625_Prep (MOD) Extended PAH List																					Total Number of containers												
Phone: 714-895-5494(Tel)			WO #: N/A																																		
Email: N/A			Project #: 38001111		Preservation Codes: -  Other: N/A																																
Project Name: RED-HILL			SOW#: N/A																																		
Site: Honolulu BWS Sites					Special Instructions/Note: -  -																																
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/oil, BT=Tissue, An=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	801BB_DRO_LL_CS3510C_LL_HNL Ranges: C10-C24/C24-C36/C8-C18	801BB_GRO_LLJ5030C (MOD) GRO	626.1_SIM625_Prep (MOD) Extended PAH List	Total Number of containers	Special Instructions/Note																										
HALAWA SHAFT VIEWING POOL (380-135687-1)	2/11/25	10:00 Hawaiian	G	Water		X	X	X		7	MRLs are needed. Confirm any hits >RL.																										
TRIP BLANK (380-135687-2)	2/11/25	10:00 Hawaiian	G	Water				X		2	MRLs are needed.																										

380-135687 Chain of Custody

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>	
Unconfirmed		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2	Special Instructions/QC Requirements:	

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by: <i>Mark Winston</i>	Date/Time: 2/14/25 1522	Company:	Received by: <i>Robert K</i>	Date/Time: 2-14-25 1525	Company: <i>Way</i>
Relinquished by: <i>Robert K</i>	Date/Time: 2-14-25 16:40	Company: <i>Way</i>	Received by: <i>[Signature]</i>	Date/Time: 2/14/25 1640	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.7/0.9 SC14
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## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-135687-1

SDG Number: Weekly

**Login Number: 135687**

**List Number: 1**

**Creator: Do, Michelle**

**List Source: Eurofins Eaton Analytical Pomona**

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



## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-135687-1

SDG Number: Weekly

**Login Number: 135687**

**List Number: 2**

**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**

**List Creation: 02/14/25 06:30 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	