

# ANALYTICAL REPORT

## PREPARED FOR

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City & County of Honolulu  
630 South Beretania Street  
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Honolulu, Hawaii 96843

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## JOB DESCRIPTION

RED-HILL  
Weekly  
RUSH Weekly Red Hill

## JOB NUMBER

380-131771-1

# Eurofins Eaton Analytical Pomona

## Job Notes

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

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

## Compliance Statement

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

## Authorization



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# Definitions/Glossary

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

Job ID: 380-131771-1  
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.

## 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: 380-131771-1

**Job ID: 380-131771-1**

**Eurofins Eaton Analytical Pomona**

## **Job Narrative 380-131771-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

### **Receipt**

The samples were received on 1/23/2025 9:37 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.6°C, 2.5°C and 3.4°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: 380-131771-1  
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**  
PWSID Number: HI0000331

**Lab Sample ID: 380-131771-1**

No Detections.

**Client Sample ID: AIEA GULCH WELLS PUMP 2  
(331-202-TP072)**  
PWSID Number: HI0000331

**Lab Sample ID: 380-131771-2**

No Detections.

**Client Sample ID: TB:AIEA GULCH WELLS P1 (331-201-TP071)**

**Lab Sample ID: 380-131771-3**

No Detections.

**Client Sample ID: TB:AIEA GULCH WELLS P2 (331-202-TP072)**

**Lab Sample ID: 380-131771-4**

No Detections.

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-131771-1**

Date Collected: 01/21/25 10:19

Matrix: Drinking Water

Date Received: 01/23/25 09:37

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
2,4'-DDD	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
2,4'-DDE	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
2,4'-DDT	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
2-Methylnaphthalene	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
4,4'-DDD	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
4,4'-DDE	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
4,4'-DDT	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Acenaphthene	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Acenaphthylene	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Acetochlor	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Alachlor	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
alpha-BHC	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
alpha-Chlordane	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Anthracene	<0.020		0.020	ug/L		01/24/25 09:25	01/26/25 21:57	1
Atrazine	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Benz(a)anthracene	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Benzo[a]pyrene	<0.020		0.020	ug/L		01/24/25 09:25	01/26/25 21:57	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		01/24/25 09:25	01/26/25 21:57	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		01/24/25 09:25	01/26/25 21:57	1
beta-BHC	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		01/24/25 09:25	01/26/25 21:57	1
Bromacil	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Butachlor	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Butylbenzylphthalate	<0.49		0.49	ug/L		01/24/25 09:25	01/26/25 21:57	1
Chlorobenzilate	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Chloroneb	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Chlorpyrifos	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Chrysene	<0.020		0.020	ug/L		01/24/25 09:25	01/26/25 21:57	1
delta-BHC	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		01/24/25 09:25	01/26/25 21:57	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Dieldrin	<0.0098		0.0098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Diethylphthalate	<0.49		0.49	ug/L		01/24/25 09:25	01/26/25 21:57	1
Dimethylphthalate	<0.49		0.49	ug/L		01/24/25 09:25	01/26/25 21:57	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		01/24/25 09:25	01/26/25 21:57	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Endosulfan sulfate	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Endrin	<0.0098		0.0098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Endrin aldehyde	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
EPTC	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1

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# Client Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-131771-1**

Date Collected: 01/21/25 10:19

Matrix: Drinking Water

Date Received: 01/23/25 09:37

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Fluorene	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
gamma-Chlordane	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Heptachlor	<0.0098		0.0098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Heptachlor epoxide (isomer B)	<0.0098		0.0098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Hexachlorobenzene	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Isophorone	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Lindane	<0.0098		0.0098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Malathion	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Methoxychlor	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Metolachlor	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Molinate	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Naphthalene	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Parathion	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Phenanthrene	<0.039		0.039	ug/L		01/24/25 09:25	01/26/25 21:57	1
Propachlor	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Pyrene	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Simazine	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Terbacil	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Terbutylazine	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Thiobencarb	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		01/24/25 09:25	01/26/25 21:57	1
trans-Nonachlor	<0.049		0.049	ug/L		01/24/25 09:25	01/26/25 21:57	1
Trifluralin	<0.098		0.098	ug/L		01/24/25 09:25	01/26/25 21:57	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	01/24/25 09:25	01/26/25 21:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	92		70 - 130	01/24/25 09:25	01/26/25 21:57	1
Perylene-d12	99		70 - 130	01/24/25 09:25	01/26/25 21:57	1
Triphenylphosphate	108		70 - 130	01/24/25 09:25	01/26/25 21:57	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		01/24/25 19:44	02/05/25 04:21	1
2-Methylnaphthalene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Acenaphthene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Acenaphthylene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Anthracene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Benzo[a]anthracene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Benzo[a]pyrene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Chrysene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1

Eurofins Eaton Analytical Pomona



# Client Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-131771-1**

Date Collected: 01/21/25 10:19

Matrix: Drinking Water

Date Received: 01/23/25 09:37

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Fluoranthene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Fluorene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Naphthalene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Phenanthrene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Pyrene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	80		28 - 127			01/24/25 19:44	02/05/25 04:21	1
2-Fluorobiphenyl (Surr)	73		31 - 120			01/24/25 19:44	02/05/25 04:21	1
2-Fluorophenol (Surr)	36		17 - 120			01/24/25 19:44	02/05/25 04:21	1
Nitrobenzene-d5 (Surr)	73		27 - 120			01/24/25 19:44	02/05/25 04:21	1
Phenol-d6 (Surr)	23		10 - 120			01/24/25 19:44	02/05/25 04:21	1
p-Terphenyl-d14 (Surr)	86		45 - 120			01/24/25 19:44	02/05/25 04:21	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	01/24/25 19:44	02/05/25 12:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	82		33 - 139				01/24/25 19:44	02/05/25 12:02	1
2-Fluorobiphenyl (Surr)	69		33 - 126				01/24/25 19:44	02/05/25 12:02	1
2-Fluorophenol (Surr)	36		12 - 120				01/24/25 19:44	02/05/25 12:02	1
Nitrobenzene-d5 (Surr)	69		36 - 120				01/24/25 19:44	02/05/25 12:02	1
Phenol-d6 (Surr)	15		10 - 120				01/24/25 19:44	02/05/25 12:02	1
p-Terphenyl-d14 (Surr)	74		47 - 131				01/24/25 19:44	02/05/25 12:02	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			01/28/25 21:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		38 - 134				01/28/25 21:35	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)	<27		27	ug/L		01/27/25 18:31	02/03/25 03:17	1
Motor Oil Range Organics [C24-C36]	<27		27	ug/L		01/27/25 18:31	02/03/25 03:17	1
C8-C18	<27		27	ug/L		01/27/25 18:31	02/03/25 03:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	105		60 - 130			01/27/25 18:31	02/03/25 03:17	1

# Client Sample Results

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

Job ID: 380-131771-1  
 SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 2  
 (331-202-TP072)**

**Lab Sample ID: 380-131771-2**

Date Collected: 01/21/25 10:34

Matrix: Drinking Water

Date Received: 01/23/25 09:37

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
2,4'-DDD	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
2,4'-DDE	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
2,4'-DDT	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
2-Methylnaphthalene	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
4,4'-DDD	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
4,4'-DDE	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
4,4'-DDT	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Acenaphthene	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Acenaphthylene	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Acetochlor	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Alachlor	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
alpha-BHC	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
alpha-Chlordane	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Anthracene	<0.019		0.019	ug/L		01/24/25 09:25	01/26/25 22:17	1
Atrazine	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Benz(a)anthracene	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Benzo[a]pyrene	<0.019		0.019	ug/L		01/24/25 09:25	01/26/25 22:17	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		01/24/25 09:25	01/26/25 22:17	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		01/24/25 09:25	01/26/25 22:17	1
beta-BHC	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		01/24/25 09:25	01/26/25 22:17	1
Bromacil	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Butachlor	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Butylbenzylphthalate	<0.48		0.48	ug/L		01/24/25 09:25	01/26/25 22:17	1
Chlorobenzilate	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Chloroneb	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Chlorpyrifos	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Chrysene	<0.019		0.019	ug/L		01/24/25 09:25	01/26/25 22:17	1
delta-BHC	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		01/24/25 09:25	01/26/25 22:17	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Dieldrin	<0.0097		0.0097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Diethylphthalate	<0.48		0.48	ug/L		01/24/25 09:25	01/26/25 22:17	1
Dimethylphthalate	<0.48		0.48	ug/L		01/24/25 09:25	01/26/25 22:17	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		01/24/25 09:25	01/26/25 22:17	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Endosulfan sulfate	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Endrin	<0.0097		0.0097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Endrin aldehyde	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
EPTC	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1

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# Client Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 2  
(331-202-TP072)**

**Lab Sample ID: 380-131771-2**

Date Collected: 01/21/25 10:34

Matrix: Drinking Water

Date Received: 01/23/25 09:37

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Fluorene	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
gamma-Chlordane	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Heptachlor	<0.0097		0.0097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Hexachlorobenzene	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Isophorone	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Lindane	<0.0097		0.0097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Malathion	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Methoxychlor	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Metolachlor	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Molinate	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Naphthalene	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Parathion	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Phenanthrene	<0.039		0.039	ug/L		01/24/25 09:25	01/26/25 22:17	1
Propachlor	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Pyrene	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Simazine	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Terbacil	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Terbutylazine	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Thiobencarb	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		01/24/25 09:25	01/26/25 22:17	1
trans-Nonachlor	<0.048		0.048	ug/L		01/24/25 09:25	01/26/25 22:17	1
Trifluralin	<0.097		0.097	ug/L		01/24/25 09:25	01/26/25 22:17	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	01/24/25 09:25	01/26/25 22:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	91		70 - 130	01/24/25 09:25	01/26/25 22:17	1
Perylene-d12	98		70 - 130	01/24/25 09:25	01/26/25 22:17	1
Triphenylphosphate	106		70 - 130	01/24/25 09:25	01/26/25 22:17	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		01/24/25 19:44	02/05/25 04:43	1
2-Methylnaphthalene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Acenaphthene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Acenaphthylene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Anthracene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Benzo[a]anthracene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Benzo[a]pyrene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Chrysene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1

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# Client Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 2  
(331-202-TP072)**

**Lab Sample ID: 380-131771-2**

Date Collected: 01/21/25 10:34

Matrix: Drinking Water

Date Received: 01/23/25 09:37

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Fluoranthene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Fluorene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Naphthalene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Phenanthrene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Pyrene	<0.19		0.19	ug/L		01/24/25 19:44	02/05/25 04:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	57		28 - 127			01/24/25 19:44	02/05/25 04:43	1
2-Fluorobiphenyl (Surr)	49		31 - 120			01/24/25 19:44	02/05/25 04:43	1
2-Fluorophenol (Surr)	25		17 - 120			01/24/25 19:44	02/05/25 04:43	1
Nitrobenzene-d5 (Surr)	48		27 - 120			01/24/25 19:44	02/05/25 04:43	1
Phenol-d6 (Surr)	16		10 - 120			01/24/25 19:44	02/05/25 04:43	1
p-Terphenyl-d14 (Surr)	82		45 - 120			01/24/25 19:44	02/05/25 04:43	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	01/24/25 19:44	02/05/25 12:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	66		33 - 139				01/24/25 19:44	02/05/25 12:25	1
2-Fluorobiphenyl (Surr)	47		33 - 126				01/24/25 19:44	02/05/25 12:25	1
2-Fluorophenol (Surr)	22		12 - 120				01/24/25 19:44	02/05/25 12:25	1
Nitrobenzene-d5 (Surr)	47		36 - 120				01/24/25 19:44	02/05/25 12:25	1
Phenol-d6 (Surr)	12		10 - 120				01/24/25 19:44	02/05/25 12:25	1
p-Terphenyl-d14 (Surr)	69		47 - 131				01/24/25 19:44	02/05/25 12:25	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			01/28/25 21:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		38 - 134				01/28/25 21:59	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)	<27		27	ug/L		01/27/25 18:31	02/03/25 03:39	1
Motor Oil Range Organics [C24-C36]	<27		27	ug/L		01/27/25 18:31	02/03/25 03:39	1
C8-C18	<27		27	ug/L		01/27/25 18:31	02/03/25 03:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	106		60 - 130			01/27/25 18:31	02/03/25 03:39	1

# Client Sample Results

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

Job ID: 380-131771-1  
 SDG: Weekly

**Client Sample ID: TB:AIEA GULCH WELLS P1 (331-201-TP071)**

**Lab Sample ID: 380-131771-3**

Date Collected: 01/21/25 10:19

Matrix: Water

Date Received: 01/23/25 09:37

**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			01/29/25 00:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		38 - 134				01/29/25 00:25	1

**Client Sample ID: TB:AIEA GULCH WELLS P2 (331-202-TP072)**

**Lab Sample ID: 380-131771-4**

Date Collected: 01/21/25 10:34

Matrix: Water

Date Received: 01/23/25 09:37

**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			01/29/25 00:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		38 - 134				01/29/25 00:50	1

# Action Limit Summary

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

Job ID: 380-131771-1  
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 1**  
**(331-201-TP071)**  
**PWSID Number: HI0000331**

**Lab Sample ID: 380-131771-1**

## 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

**Client Sample ID: AIEA GULCH WELLS PUMP 2**  
**(331-202-TP072)**  
**PWSID Number: HI0000331**

**Lab Sample ID: 380-131771-2**

## Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	<0.048		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	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		ug/L	0.2	0.0097	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
Lindane	<0.0097		ug/L	0.2	0.0097	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
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: 380-131771-1  
SDG: Weekly

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-131771-1	AIEA GULCH WELLS PUMP 1 (331	92	99	108
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	91	98	106

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-130632-Q-1-A MS	Matrix Spike	93	98	113
380-130655-O-1-A DU	Duplicate	94	99	112
LCS 380-130212/23-A	Lab Control Sample	92	97	110
MB 380-130212/21-A	Method Blank	91	100	112
MRL 380-130212/22-A	Lab Control Sample	93	101	108

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

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

Matrix: Drinking 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)
380-131771-1	AIEA GULCH WELLS PUMP 1 (331	82	69	36	69	15	74
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	66	47	22	47	12	69

**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 - 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)
MB 570-526428/1-A	Method Blank	88	71	37	73	22	82

**Surrogate Legend**

# Surrogate Summary

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

Job ID: 380-131771-1  
 SDG: Weekly

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: Drinking 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)
380-131771-1	AIEA GULCH WELLS PUMP 1 (331	80	73	36	73	23	86
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	57	49	25	48	16	82

### 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)
380-131757-A-1-B MS	Matrix Spike	73	66	37	57	24	79
380-131757-A-1-C MSD	Matrix Spike Duplicate	85	80	42	67	27	84
LCS 570-526428/2-A	Lab Control Sample	74	70	43	62	29	78
LCSD 570-526428/3-A	Lab Control Sample Dup	78	72	45	65	30	82
MB 570-526428/1-A	Method Blank	76	71	35	71	21	73

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB1 (38-134)
380-131771-1	AIEA GULCH WELLS PUMP 1 (331	94
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	94

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)



# Surrogate Summary

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

Job ID: 380-131771-1  
 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)
380-131757-C-1 MS	Matrix Spike	97
380-131757-C-1 MSD	Matrix Spike Duplicate	98
380-131771-3	TB:AIEA GULCH WELLS P1 (331-201-TP071)	91
380-131771-4	TB:AIEA GULCH WELLS P2 (331-202-TP072)	91
LCS 570-527285/1008	Lab Control Sample	98
LCSD 570-527285/9	Lab Control Sample Dup	95
MB 570-527285/10	Method Blank	90
MRL 570-527285/1003	Lab Control Sample	92

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Drinking Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-131771-1	AIEA GULCH WELLS PUMP 1 (331)	105
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	106

**Surrogate Legend**

OTCSN = n-Octacosane (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)
380-131757-B-1-A MS	Matrix Spike	109
380-131757-B-1-B MSD	Matrix Spike Duplicate	111
LCS 570-527005/2-A	Lab Control Sample	111
LCSD 570-527005/3-A	Lab Control Sample Dup	112
MB 570-527005/1-A	Method Blank	114
MRL 570-527005/4-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: 380-131771-1  
SDG: Weekly

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

**Lab Sample ID: MB 380-130212/21-A**  
**Matrix: Water**  
**Analysis Batch: 130440**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 130212**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
2,4'-DDD	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
2,4'-DDE	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
2,4'-DDT	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
2-Methylnaphthalene	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
4,4'-DDD	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
4,4'-DDE	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
4,4'-DDT	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Acenaphthene	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Acenaphthylene	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Acetochlor	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Alachlor	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
alpha-BHC	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
alpha-Chlordane	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Anthracene	<0.020		0.020	ug/L		01/24/25 09:25	01/26/25 15:11	1
Atrazine	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Benz(a)anthracene	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Benzo[a]pyrene	<0.020		0.020	ug/L		01/24/25 09:25	01/26/25 15:11	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		01/24/25 09:25	01/26/25 15:11	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		01/24/25 09:25	01/26/25 15:11	1
beta-BHC	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		01/24/25 09:25	01/26/25 15:11	1
Bromacil	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Butachlor	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Butylbenzylphthalate	<0.50		0.50	ug/L		01/24/25 09:25	01/26/25 15:11	1
Chlorobenzilate	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Chloroneb	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Chlorpyrifos	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Chrysene	<0.020		0.020	ug/L		01/24/25 09:25	01/26/25 15:11	1
delta-BHC	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		01/24/25 09:25	01/26/25 15:11	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Dieldrin	<0.0099		0.0099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Diethylphthalate	<0.50		0.50	ug/L		01/24/25 09:25	01/26/25 15:11	1
Dimethylphthalate	<0.50		0.50	ug/L		01/24/25 09:25	01/26/25 15:11	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		01/24/25 09:25	01/26/25 15:11	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Endosulfan sulfate	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Endrin	<0.0099		0.0099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Endrin aldehyde	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
EPTC	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1

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# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

Lab Sample ID: MB 380-130212/21-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 130440

Prep Batch: 130212

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Fluoranthene	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Fluorene	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
gamma-Chlordane	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Heptachlor	<0.0099		0.0099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Hexachlorobenzene	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Isophorone	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Lindane	<0.0099		0.0099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Malathion	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Methoxychlor	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Metolachlor	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Molinate	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Naphthalene	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Parathion	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Phenanthrene	<0.040		0.040	ug/L		01/24/25 09:25	01/26/25 15:11	1
Propachlor	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Pyrene	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Simazine	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Terbacil	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Terbutylazine	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Thiobencarb	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		01/24/25 09:25	01/26/25 15:11	1
trans-Nonachlor	<0.050		0.050	ug/L		01/24/25 09:25	01/26/25 15:11	1
Trifluralin	<0.099		0.099	ug/L		01/24/25 09:25	01/26/25 15:11	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Unknown	1.01	T J	ug/L		2.54	N/A	01/24/25 09:25	01/26/25 15:11	1
Decane	1.88	T J N	ug/L		2.71	124-18-5	01/24/25 09:25	01/26/25 15:11	1
9-Octadecenamamide, (Z)-	1.77	T J N	ug/L		7.75	301-02-0	01/24/25 09:25	01/26/25 15:11	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Nitro-m-xylene	91		70 - 130	01/24/25 09:25	01/26/25 15:11	1
Perylene-d12	100		70 - 130	01/24/25 09:25	01/26/25 15:11	1
Triphenylphosphate	112		70 - 130	01/24/25 09:25	01/26/25 15:11	1

Lab Sample ID: LCS 380-130212/23-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 130440

Prep Batch: 130212

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	1.98	1.87		ug/L		94	70 - 130
2,4'-DDD	1.98	2.08		ug/L		105	70 - 130
2,4'-DDE	1.98	1.96		ug/L		99	70 - 130
2,4'-DDT	1.98	2.08		ug/L		105	70 - 130
2,4-Dinitrotoluene	1.98	1.82		ug/L		92	70 - 130

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# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

Lab Sample ID: LCS 380-130212/23-A

Matrix: Water

Analysis Batch: 130440

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,6-Dinitrotoluene	1.98	1.85		ug/L		93	70 - 130
2-Methylnaphthalene	1.98	1.90		ug/L		96	70 - 130
4,4'-DDD	1.98	2.09		ug/L		105	70 - 130
4,4'-DDE	1.98	2.07		ug/L		104	70 - 130
4,4'-DDT	1.98	2.11		ug/L		106	70 - 130
Acenaphthene	1.98	1.82		ug/L		92	70 - 130
Acenaphthylene	1.98	2.00		ug/L		101	70 - 130
Acetochlor	1.98	2.04		ug/L		103	70 - 130
Alachlor	1.98	2.05		ug/L		104	70 - 130
alpha-BHC	1.98	2.00		ug/L		101	70 - 130
alpha-Chlordane	1.98	2.28		ug/L		115	70 - 130
Anthracene	1.98	1.84		ug/L		93	70 - 130
Atrazine	1.98	2.07		ug/L		105	70 - 130
Benz(a)anthracene	1.98	1.94		ug/L		98	70 - 130
Benzo[a]pyrene	1.98	2.14		ug/L		108	70 - 130
Benzo[b]fluoranthene	1.98	2.22		ug/L		112	70 - 130
Benzo[g,h,i]perylene	1.98	2.00		ug/L		101	70 - 130
Benzo[k]fluoranthene	1.98	2.18		ug/L		110	70 - 130
beta-BHC	1.98	1.98		ug/L		100	70 - 130
Bis(2-ethylhexyl) phthalate	1.98	1.93		ug/L		97	70 - 130
Bromacil	1.98	1.94		ug/L		98	70 - 130
Butachlor	1.98	2.19		ug/L		110	70 - 130
Butylbenzylphthalate	1.98	2.28		ug/L		115	70 - 130
Chlorobenzilate	1.98	1.64		ug/L		83	70 - 130
Chloroneb	1.98	2.24		ug/L		113	70 - 130
Chlorothalonil (Draconil, Bravo)	1.98	2.49		ug/L		126	70 - 130
Chlorpyrifos	1.98	2.08		ug/L		105	70 - 130
Chrysene	1.98	1.97		ug/L		99	70 - 130
delta-BHC	1.98	1.94		ug/L		98	70 - 130
Di(2-ethylhexyl)adipate	1.98	2.03		ug/L		102	70 - 130
Dibenz(a,h)anthracene	1.98	1.86		ug/L		94	70 - 130
Diclorvos (DDVP)	1.98	2.04		ug/L		103	70 - 130
Dieldrin	1.98	2.01		ug/L		101	70 - 130
Diethylphthalate	1.98	2.07		ug/L		104	70 - 130
Dimethylphthalate	1.98	2.05		ug/L		103	70 - 130
Di-n-butyl phthalate	3.97	4.17		ug/L		105	70 - 130
Di-n-octyl phthalate	1.98	1.72		ug/L		87	70 - 130
Endosulfan I (Alpha)	1.98	1.94		ug/L		98	70 - 130
Endosulfan II (Beta)	1.98	2.04		ug/L		103	70 - 130
Endosulfan sulfate	1.98	2.15		ug/L		108	70 - 130
Endrin	1.98	2.04		ug/L		103	70 - 130
Endrin aldehyde	1.98	1.79		ug/L		90	60 - 130
EPTC	1.98	1.97		ug/L		99	70 - 130
Fluoranthene	1.98	2.14		ug/L		108	70 - 130
Fluorene	1.98	2.01		ug/L		101	70 - 130
gamma-Chlordane	1.98	2.26		ug/L		114	70 - 130
Heptachlor	1.98	1.96		ug/L		99	70 - 130
Heptachlor epoxide (isomer B)	1.98	2.25		ug/L		113	70 - 130
Hexachlorobenzene	1.98	1.93		ug/L		97	70 - 130

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# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

Lab Sample ID: LCS 380-130212/23-A

Matrix: Water

Analysis Batch: 130440

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	1.98	1.98		ug/L		100	70 - 130
Indeno[1,2,3-cd]pyrene	1.98	1.93		ug/L		97	70 - 130
Isophorone	1.98	1.87		ug/L		94	70 - 130
Lindane	1.98	1.99		ug/L		100	70 - 130
Malathion	1.98	2.22		ug/L		112	70 - 130
Methoxychlor	1.98	2.26		ug/L		114	70 - 130
Metolachlor	1.98	2.12		ug/L		107	70 - 130
Molinate	1.98	2.00		ug/L		101	70 - 130
Naphthalene	1.98	1.95		ug/L		98	70 - 130
Parathion	1.98	2.10		ug/L		106	70 - 130
Pendimethalin (Penoxaline)	1.98	2.09		ug/L		105	70 - 130
Phenanthrene	1.98	1.91		ug/L		96	70 - 130
Propachlor	1.98	2.04		ug/L		103	70 - 130
Pyrene	1.98	2.14		ug/L		108	70 - 130
Simazine	1.98	2.05		ug/L		103	70 - 130
Terbacil	1.98	2.01		ug/L		101	70 - 130
Terbutylazine	1.98	2.11		ug/L		107	70 - 130
Thiobencarb	1.98	2.11		ug/L		106	70 - 130
trans-Nonachlor	1.98	2.23		ug/L		112	70 - 130
Trifluralin	1.98	1.85		ug/L		93	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	92		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	110		70 - 130

Lab Sample ID: MRL 380-130212/22-A

Matrix: Water

Analysis Batch: 130440

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130212

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0991	0.112		ug/L		113	50 - 150
2,4'-DDD	0.0991	0.0944	J	ug/L		95	50 - 150
2,4'-DDE	0.0991	0.102		ug/L		103	50 - 150
2,4'-DDT	0.0991	0.105		ug/L		105	50 - 150
2,4-Dinitrotoluene	0.0991	0.115		ug/L		116	50 - 150
2,6-Dinitrotoluene	0.0991	0.114		ug/L		115	50 - 150
2-Methylnaphthalene	0.0991	0.104		ug/L		105	50 - 150
4,4'-DDD	0.0991	0.110		ug/L		111	50 - 150
4,4'-DDE	0.0991	0.109		ug/L		110	50 - 150
4,4'-DDT	0.0991	0.109		ug/L		110	50 - 150
Acenaphthene	0.0991	0.0930	J	ug/L		94	50 - 150
Acenaphthylene	0.0991	0.0979	J	ug/L		99	50 - 150
Acetochlor	0.0991	0.104		ug/L		105	50 - 150
Alachlor	0.0496	0.0562		ug/L		113	50 - 150
alpha-BHC	0.0991	0.109		ug/L		110	50 - 150
alpha-Chlordane	0.0248	<0.029		ug/L		109	50 - 150
Anthracene	0.0198	0.0229		ug/L		116	50 - 150

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

Lab Sample ID: MRL 380-130212/22-A

Matrix: Water

Analysis Batch: 130440

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130212

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
Atrazine	0.0496	0.0563		ug/L		114	50 - 150
Benz(a)anthracene	0.0496	0.0543		ug/L		110	50 - 150
Benzo[a]pyrene	0.0198	0.0227		ug/L		115	50 - 150
Benzo[b]fluoranthene	0.0198	0.0197	J	ug/L		99	50 - 150
Benzo[g,h,i]perylene	0.0496	0.0456	J	ug/L		92	50 - 150
Benzo[k]fluoranthene	0.0198	0.0222		ug/L		112	50 - 150
beta-BHC	0.0991	0.109		ug/L		110	50 - 150
Bis(2-ethylhexyl) phthalate	0.595	0.552	J	ug/L		93	50 - 150
Bromacil	0.0991	0.114		ug/L		115	50 - 150
Butachlor	0.0496	0.0509		ug/L		103	50 - 150
Butylbenzylphthalate	0.496	0.591		ug/L		119	50 - 150
Chlorobenzilate	0.0991	0.0758	J	ug/L		77	50 - 150
Chloroneb	0.0991	0.0717	J	ug/L		72	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0991	0.0911	J	ug/L		92	50 - 150
Chlorpyrifos	0.0496	0.0530		ug/L		107	50 - 150
Chrysene	0.0198	0.0205		ug/L		104	50 - 150
delta-BHC	0.0991	0.109		ug/L		110	50 - 150
Di(2-ethylhexyl)adipate	0.595	0.670		ug/L		113	50 - 150
Dibenz(a,h)anthracene	0.0496	0.0524		ug/L		106	50 - 150
Diclorvos (DDVP)	0.0496	0.0577		ug/L		116	50 - 150
Dieldrin	0.00991	0.0121		ug/L		122	50 - 150
Diethylphthalate	0.496	0.518		ug/L		105	50 - 150
Dimethylphthalate	0.496	0.518		ug/L		104	50 - 150
Di-n-butyl phthalate	0.496	0.536	J	ug/L		108	49 - 243
Di-n-octyl phthalate	0.0991	0.0974	J	ug/L		98	50 - 150
Endosulfan I (Alpha)	0.0991	0.104		ug/L		105	50 - 150
Endosulfan II (Beta)	0.0991	0.106		ug/L		107	50 - 150
Endosulfan sulfate	0.0991	0.112		ug/L		113	50 - 150
Endrin	0.00991	0.00976	J	ug/L		98	50 - 150
Endrin aldehyde	0.0991	0.118		ug/L		119	50 - 150
EPTC	0.0991	0.0925	J	ug/L		93	50 - 150
Fluoranthene	0.0991	0.0996		ug/L		100	50 - 150
Fluorene	0.0496	0.0502		ug/L		101	50 - 150
gamma-Chlordane	0.0248	0.0264	J	ug/L		107	50 - 150
Heptachlor	0.00991	0.0147		ug/L		148	50 - 150
Heptachlor epoxide (isomer B)	0.00991	0.0133		ug/L		134	50 - 150
Hexachlorobenzene	0.0496	0.0476	J	ug/L		96	50 - 150
Hexachlorocyclopentadiene	0.0496	0.0395	J	ug/L		80	50 - 150
Indeno[1,2,3-cd]pyrene	0.0496	0.0567		ug/L		115	50 - 150
Isophorone	0.0991	0.113		ug/L		114	50 - 150
Lindane	0.00991	0.0137		ug/L		138	50 - 150
Malathion	0.0991	0.102		ug/L		103	50 - 150
Methoxychlor	0.0496	0.0559		ug/L		113	50 - 150
Metolachlor	0.0496	0.0550		ug/L		111	50 - 150
Molinate	0.0991	0.0997		ug/L		101	50 - 150
Naphthalene	0.0991	0.0960	J	ug/L		97	50 - 150
Parathion	0.0991	0.0930	J	ug/L		94	50 - 150
Pendimethalin (Penoxaline)	0.0991	0.105		ug/L		106	50 - 150
Phenanthrene	0.0396	0.0444		ug/L		112	50 - 150

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

Lab Sample ID: MRL 380-130212/22-A

Matrix: Water

Analysis Batch: 130440

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 130212

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Propachlor	0.0496	0.0525		ug/L		106	50 - 150
Pyrene	0.0496	0.0511		ug/L		103	50 - 150
Simazine	0.0496	0.0554		ug/L		112	50 - 150
Terbacil	0.0991	0.0962	J	ug/L		97	50 - 150
Terbutylazine	0.0991	0.102		ug/L		103	50 - 150
Thiobencarb	0.0991	0.101		ug/L		102	50 - 150
trans-Nonachlor	0.0248	0.0278	J	ug/L		112	50 - 150
Trifluralin	0.0991	0.102		ug/L		103	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	93		70 - 130
Perylene-d12	101		70 - 130
Triphenylphosphate	108		70 - 130

Lab Sample ID: 380-130632-Q-1-A MS

Matrix: Water

Analysis Batch: 130440

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 130212

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.94	1.85		ug/L		95	70 - 130
2,4'-DDD	<0.097		1.94	2.07		ug/L		107	70 - 130
2,4'-DDE	<0.097		1.94	1.98		ug/L		102	70 - 130
2,4'-DDT	<0.097		1.94	2.19		ug/L		113	70 - 130
2,4-Dinitrotoluene	<0.097		1.94	1.89		ug/L		98	70 - 130
2,6-Dinitrotoluene	<0.097		1.94	1.90		ug/L		98	70 - 130
2-Methylnaphthalene	<0.097		1.94	1.89		ug/L		98	70 - 130
4,4'-DDD	<0.097		1.94	2.14		ug/L		111	70 - 130
4,4'-DDE	<0.097		1.94	2.19		ug/L		113	70 - 130
4,4'-DDT	<0.097		1.94	2.28		ug/L		118	70 - 130
Acenaphthene	<0.097		1.94	1.79		ug/L		93	70 - 130
Acenaphthylene	<0.097		1.94	1.93		ug/L		100	70 - 130
Acetochlor	<0.097		1.94	2.01		ug/L		104	70 - 130
Alachlor	<0.048		1.94	1.98		ug/L		102	70 - 130
alpha-BHC	<0.097		1.94	1.98		ug/L		102	70 - 130
alpha-Chlordane	<0.048		1.94	2.26		ug/L		117	70 - 130
Anthracene	<0.019	F1	1.94	0.425	F1	ug/L		22	70 - 130
Atrazine	<0.048		1.94	1.90		ug/L		98	70 - 130
Benz(a)anthracene	<0.048		1.94	1.67		ug/L		86	70 - 130
Benzo[a]pyrene	<0.019		1.94	1.54		ug/L		80	70 - 130
Benzo[b]fluoranthene	<0.019		1.94	2.23		ug/L		115	70 - 130
Benzo[g,h,i]perylene	<0.048		1.94	2.08		ug/L		108	70 - 130
Benzo[k]fluoranthene	<0.019		1.94	2.11		ug/L		109	70 - 130
beta-BHC	<0.097		1.94	1.99		ug/L		103	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.94	2.17		ug/L		112	70 - 130
Bromacil	<0.097		1.94	1.91		ug/L		99	70 - 130
Butachlor	<0.048		1.94	2.18		ug/L		113	70 - 130
Butylbenzylphthalate	<0.48		1.94	2.31		ug/L		119	70 - 130
Chlorobenzilate	<0.097		1.94	2.03		ug/L		105	70 - 130

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# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

Lab Sample ID: 380-130632-Q-1-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 130440

Prep Batch: 130212

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Chloroneb	<0.097		1.94	2.28		ug/L		118	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.94	2.25		ug/L		116	70 - 130
Chlorpyrifos	<0.048		1.94	2.08		ug/L		107	70 - 130
Chrysene	<0.019		1.94	1.85		ug/L		96	70 - 130
delta-BHC	<0.097		1.94	1.90		ug/L		98	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.94	2.27		ug/L		117	70 - 130
Dibenz(a,h)anthracene	<0.048		1.94	1.86		ug/L		96	70 - 130
Diclorvos (DDVP)	<0.048		1.94	2.13		ug/L		110	70 - 130
Dieldrin	<0.0097		1.94	2.00		ug/L		103	70 - 130
Diethylphthalate	<0.48		1.94	2.10		ug/L		109	70 - 130
Dimethylphthalate	<0.48		1.94	2.08		ug/L		107	70 - 130
Di-n-butyl phthalate	<0.97		3.87	4.12		ug/L		106	70 - 130
Di-n-octyl phthalate	<0.097		1.94	2.01		ug/L		104	70 - 130
Endosulfan I (Alpha)	<0.097		1.94	1.93		ug/L		100	70 - 130
Endosulfan II (Beta)	<0.097		1.94	2.04		ug/L		106	70 - 130
Endosulfan sulfate	<0.097		1.94	2.12		ug/L		109	70 - 130
Endrin	<0.0097		1.94	1.85		ug/L		96	70 - 130
Endrin aldehyde	<0.097		1.94	1.61		ug/L		83	60 - 130
EPTC	<0.097		1.94	1.95		ug/L		101	70 - 130
Fluoranthene	<0.097		1.94	2.11		ug/L		109	70 - 130
Fluorene	<0.048		1.94	2.02		ug/L		104	70 - 130
gamma-Chlordane	<0.048		1.94	2.25		ug/L		116	70 - 130
Heptachlor	<0.0097		1.94	1.96		ug/L		101	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.94	2.20		ug/L		114	70 - 130
Hexachlorobenzene	<0.048		1.94	1.94		ug/L		100	70 - 130
Hexachlorocyclopentadiene	<0.048		1.94	2.08		ug/L		107	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.94	2.08		ug/L		107	70 - 130
Isophorone	<0.097		1.94	1.89		ug/L		98	70 - 130
Lindane	<0.0097		1.94	1.97		ug/L		102	70 - 130
Malathion	<0.097		1.94	2.24		ug/L		116	70 - 130
Methoxychlor	<0.048		1.94	2.21		ug/L		114	70 - 130
Metolachlor	<0.048		1.94	2.06		ug/L		106	70 - 130
Molinate	<0.097		1.94	2.02		ug/L		104	70 - 130
Naphthalene	<0.097		1.94	1.90		ug/L		98	70 - 130
Parathion	<0.097		1.94	2.20		ug/L		113	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.94	2.16		ug/L		111	70 - 130
Phenanthrene	<0.039		1.94	1.85		ug/L		96	70 - 130
Propachlor	<0.048		1.94	2.10		ug/L		108	70 - 130
Pyrene	<0.048		1.94	2.04		ug/L		106	70 - 130
Simazine	<0.048		1.94	1.92		ug/L		99	70 - 130
Terbacil	<0.097		1.94	1.92		ug/L		99	70 - 130
Terbutylazine	<0.097		1.94	1.99		ug/L		103	70 - 130
Thiobencarb	<0.097		1.94	2.08		ug/L		108	70 - 130
trans-Nonachlor	<0.048		1.94	2.28		ug/L		118	70 - 130
Trifluralin	<0.097		1.94	1.93		ug/L		100	70 - 130

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	93		70 - 130



# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

**Lab Sample ID: 380-130632-Q-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 130440**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 130212**

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Perylene-d12	98		70 - 130
Triphenylphosphate	113		70 - 130

**Lab Sample ID: 380-130655-O-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 130440**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 130212**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
1-Methylnaphthalene	<0.097		<0.096		ug/L		NC	20
2,4'-DDD	<0.097		<0.096		ug/L		NC	20
2,4'-DDE	<0.097		<0.096		ug/L		NC	20
2,4'-DDT	<0.097		<0.096		ug/L		NC	20
2,4-Dinitrotoluene	<0.097		<0.096		ug/L		NC	20
2,6-Dinitrotoluene	<0.097		<0.096		ug/L		NC	20
2-Methylnaphthalene	<0.097		<0.096		ug/L		NC	20
4,4'-DDD	<0.097		<0.096		ug/L		NC	20
4,4'-DDE	<0.097		<0.096		ug/L		NC	20
4,4'-DDT	<0.097		<0.096		ug/L		NC	20
Acenaphthene	<0.097		<0.096		ug/L		NC	20
Acenaphthylene	<0.097		<0.096		ug/L		NC	20
Acetochlor	<0.097		<0.096		ug/L		NC	20
Alachlor	<0.048		<0.048		ug/L		NC	20
alpha-BHC	<0.097		<0.096		ug/L		NC	20
alpha-Chlordane	<0.048		<0.048		ug/L		NC	20
Anthracene	<0.019		<0.019		ug/L		NC	20
Atrazine	<0.048		<0.048		ug/L		NC	20
Benz(a)anthracene	<0.048		<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	<0.048		<0.048		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.019		ug/L		NC	20
beta-BHC	<0.097		<0.096		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Bromacil	<0.097		<0.096		ug/L		NC	20
Butachlor	<0.048		<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.48		ug/L		NC	20
Chlorobenzilate	<0.097		<0.096		ug/L		NC	20
Chloroneb	<0.097		<0.096		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.096		ug/L		NC	20
Chlorpyrifos	<0.048		<0.048		ug/L		NC	20
Chrysene	<0.019		<0.019		ug/L		NC	20
delta-BHC	<0.097		<0.096		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.048		<0.048		ug/L		NC	20
Diclorvos (DDVP)	<0.048		<0.048		ug/L		NC	20
Dieldrin	<0.0097		<0.0096		ug/L		NC	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20

# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

**Lab Sample ID: 380-130655-O-1-A DU**

**Matrix: Water**

**Analysis Batch: 130440**

**Client Sample ID: Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 130212**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Di-n-butyl phthalate	<0.97		<0.96		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.096		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.096		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.096		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.096		ug/L		NC	20
Endrin	<0.0097		<0.0096		ug/L		NC	20
Endrin aldehyde	<0.097		<0.096		ug/L		NC	20
EPTC	<0.097		<0.096		ug/L		NC	20
Fluoranthene	<0.097		<0.096		ug/L		NC	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-Chlordane	<0.048		<0.048		ug/L		NC	20
Heptachlor	<0.0097		<0.0096		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0097		<0.0096		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.048		ug/L		NC	20
Hexachlorocyclopentadiene	<0.048		<0.048		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.048		ug/L		NC	20
Isophorone	<0.097		<0.096		ug/L		NC	20
Lindane	<0.0097		<0.0096		ug/L		NC	20
Malathion	<0.097		<0.096		ug/L		NC	20
Methoxychlor	<0.048		<0.048		ug/L		NC	20
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.097		<0.096		ug/L		NC	20
Naphthalene	<0.097		<0.096		ug/L		NC	20
Parathion	<0.097		<0.096		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.096		ug/L		NC	20
Phenanthrene	<0.039		<0.038		ug/L		NC	20
Propachlor	<0.048		<0.048		ug/L		NC	20
Pyrene	<0.048		<0.048		ug/L		NC	20
Simazine	<0.048		<0.048		ug/L		NC	20
Terbacil	<0.097		<0.096		ug/L		NC	20
Terbutylazine	<0.097		<0.096		ug/L		NC	20
Thiobencarb	<0.097		<0.096		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.19		ug/L		NC	20
trans-Nonachlor	<0.048		<0.048		ug/L		NC	20
Trifluralin	<0.097		<0.096		ug/L		NC	20
		<b>DU</b>	<b>DU</b>					
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>					
2-Nitro-m-xylene	94		70 - 130					
Perylene-d12	99		70 - 130					
Triphenylphosphate	112		70 - 130					

# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

Lab Sample ID: MB 570-526428/1-A  
Matrix: Water  
Analysis Batch: 530137

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 526428

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>			<i>N/A</i>	<i>01/24/25 19:44</i>	<i>02/05/25 10:28</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	88		33 - 139	<i>01/24/25 19:44</i>	<i>02/05/25 10:28</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	71		33 - 126	<i>01/24/25 19:44</i>	<i>02/05/25 10:28</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	37		12 - 120	<i>01/24/25 19:44</i>	<i>02/05/25 10:28</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	73		36 - 120	<i>01/24/25 19:44</i>	<i>02/05/25 10:28</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	22		10 - 120	<i>01/24/25 19:44</i>	<i>02/05/25 10:28</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	82		47 - 131	<i>01/24/25 19:44</i>	<i>02/05/25 10:28</i>	<i>1</i>

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

Lab Sample ID: MB 570-526428/1-A  
Matrix: Water  
Analysis Batch: 529868

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 526428

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1-Methylnaphthalene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
2-Methylnaphthalene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Acenaphthene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Acenaphthylene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Anthracene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Benzo[a]anthracene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Benzo[a]pyrene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Chrysene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Fluoranthene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Fluorene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Naphthalene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Phenanthrene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1
Pyrene	<0.20		0.20	ug/L		01/24/25 19:44	02/04/25 21:25	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	76		28 - 127	<i>01/24/25 19:44</i>	<i>02/04/25 21:25</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	71		31 - 120	<i>01/24/25 19:44</i>	<i>02/04/25 21:25</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	35		17 - 120	<i>01/24/25 19:44</i>	<i>02/04/25 21:25</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	71		27 - 120	<i>01/24/25 19:44</i>	<i>02/04/25 21:25</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	21		10 - 120	<i>01/24/25 19:44</i>	<i>02/04/25 21:25</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	73		45 - 120	<i>01/24/25 19:44</i>	<i>02/04/25 21:25</i>	<i>1</i>

# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

**Lab Sample ID: LCS 570-526428/2-A**

**Matrix: Water**

**Analysis Batch: 529868**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 526428**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	13.5		ug/L		67	47 - 120
2-Methylnaphthalene	20.0	15.0		ug/L		75	43 - 120
Acenaphthene	20.0	15.7		ug/L		79	60 - 132
Acenaphthylene	20.0	15.7		ug/L		78	54 - 126
Anthracene	20.0	16.9		ug/L		84	43 - 120
Benzo[a]anthracene	20.0	17.0		ug/L		85	42 - 133
Benzo[a]pyrene	20.0	18.5		ug/L		92	32 - 148
Benzo[b]fluoranthene	20.0	18.2		ug/L		91	42 - 140
Benzo[g,h,i]perylene	20.0	17.1		ug/L		85	1 - 195
Benzo[k]fluoranthene	20.0	17.9		ug/L		90	25 - 146
Chrysene	20.0	16.3		ug/L		82	44 - 140
Dibenz(a,h)anthracene	20.0	17.5		ug/L		88	1 - 200
Fluoranthene	20.0	18.6		ug/L		93	43 - 121
Fluorene	20.0	16.8		ug/L		84	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	18.1		ug/L		90	1 - 151
Naphthalene	20.0	13.6		ug/L		68	36 - 120
Phenanthrene	20.0	16.9		ug/L		84	65 - 120
Pyrene	20.0	16.8		ug/L		84	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	74		28 - 127
2-Fluorobiphenyl (Surr)	70		31 - 120
2-Fluorophenol (Surr)	43		17 - 120
Nitrobenzene-d5 (Surr)	62		27 - 120
Phenol-d6 (Surr)	29		10 - 120
p-Terphenyl-d14 (Surr)	78		45 - 120

**Lab Sample ID: LCSD 570-526428/3-A**

**Matrix: Water**

**Analysis Batch: 529868**

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

**Prep Type: Total/NA**

**Prep Batch: 526428**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	14.1		ug/L		70	47 - 120	4	20
2-Methylnaphthalene	20.0	15.9		ug/L		80	43 - 120	6	20
Acenaphthene	20.0	15.9		ug/L		79	60 - 132	1	29
Acenaphthylene	20.0	13.7		ug/L		68	54 - 126	14	45
Anthracene	20.0	17.5		ug/L		87	43 - 120	4	40
Benzo[a]anthracene	20.0	18.2		ug/L		91	42 - 133	7	32
Benzo[a]pyrene	20.0	19.2		ug/L		96	32 - 148	4	43
Benzo[b]fluoranthene	20.0	18.6		ug/L		93	42 - 140	2	43
Benzo[g,h,i]perylene	20.0	17.0		ug/L		85	1 - 195	0	61
Benzo[k]fluoranthene	20.0	18.4		ug/L		92	25 - 146	2	38
Chrysene	20.0	17.5		ug/L		87	44 - 140	7	53
Dibenz(a,h)anthracene	20.0	17.8		ug/L		89	1 - 200	1	75
Fluoranthene	20.0	19.5		ug/L		97	43 - 121	5	40
Fluorene	20.0	17.3		ug/L		87	70 - 120	3	23
Indeno[1,2,3-cd]pyrene	20.0	18.5		ug/L		92	1 - 151	2	60
Naphthalene	20.0	14.2		ug/L		71	36 - 120	4	39

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

Lab Sample ID: LCSD 570-526428/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 529868

Prep Batch: 526428

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	17.4		ug/L		87	65 - 120	3	24
Pyrene	20.0	17.8		ug/L		89	70 - 120	6	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	78		28 - 127
2-Fluorobiphenyl (Surr)	72		31 - 120
2-Fluorophenol (Surr)	45		17 - 120
Nitrobenzene-d5 (Surr)	65		27 - 120
Phenol-d6 (Surr)	30		10 - 120
p-Terphenyl-d14 (Surr)	82		45 - 120

Lab Sample ID: 380-131757-A-1-B MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 529868

Prep Batch: 526428

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.1	12.1		ug/L		63	36 - 120
2-Methylnaphthalene	<0.19		19.1	13.3		ug/L		70	32 - 124
Acenaphthene	<0.19		19.1	13.6		ug/L		71	47 - 145
Acenaphthylene	<0.19		19.1	13.9		ug/L		73	33 - 145
Anthracene	<0.19		19.1	15.3		ug/L		80	27 - 133
Benzo[a]anthracene	<0.19		19.1	16.0		ug/L		84	33 - 143
Benzo[a]pyrene	<0.19		19.1	13.9		ug/L		73	17 - 163
Benzo[b]fluoranthene	<0.19		19.1	14.4		ug/L		75	24 - 159
Benzo[g,h,i]perylene	<0.19		19.1	12.5		ug/L		65	1 - 219
Benzo[k]fluoranthene	<0.19		19.1	14.4		ug/L		76	11 - 162
Chrysene	<0.19		19.1	15.5		ug/L		81	17 - 168
Dibenz(a,h)anthracene	<0.19		19.1	13.5		ug/L		71	1 - 227
Fluoranthene	<0.19		19.1	16.8		ug/L		88	26 - 137
Fluorene	<0.19		19.1	15.1		ug/L		79	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.1	13.6		ug/L		71	1 - 171
Naphthalene	<0.19		19.1	11.8		ug/L		62	21 - 133
Phenanthrene	<0.19		19.1	15.1		ug/L		79	54 - 120
Pyrene	<0.19		19.1	16.4		ug/L		86	52 - 120

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	73		28 - 127
2-Fluorobiphenyl (Surr)	66		31 - 120
2-Fluorophenol (Surr)	37		17 - 120
Nitrobenzene-d5 (Surr)	57		27 - 120
Phenol-d6 (Surr)	24		10 - 120
p-Terphenyl-d14 (Surr)	79		45 - 120

# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

Lab Sample ID: 380-131757-A-1-C MSD

Matrix: Water

Analysis Batch: 529868

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 526428

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
1-Methylnaphthalene	<0.19		19.2	14.0		ug/L		73	36 - 120	15	30
2-Methylnaphthalene	<0.19		19.2	16.0		ug/L		83	32 - 124	19	30
Acenaphthene	<0.19		19.2	16.8		ug/L		87	47 - 145	21	48
Acenaphthylene	<0.19		19.2	13.6		ug/L		71	33 - 145	2	74
Anthracene	<0.19		19.2	18.0		ug/L		93	27 - 133	16	66
Benzo[a]anthracene	<0.19		19.2	17.8		ug/L		93	33 - 143	11	53
Benzo[a]pyrene	<0.19		19.2	18.2		ug/L		95	17 - 163	27	72
Benzo[b]fluoranthene	<0.19		19.2	17.7		ug/L		92	24 - 159	20	71
Benzo[g,h,i]perylene	<0.19		19.2	16.9		ug/L		88	1 - 219	30	97
Benzo[k]fluoranthene	<0.19		19.2	17.5		ug/L		91	11 - 162	19	63
Chrysene	<0.19		19.2	17.6		ug/L		91	17 - 168	12	87
Dibenz(a,h)anthracene	<0.19		19.2	17.2		ug/L		89	1 - 227	24	126
Fluoranthene	<0.19		19.2	18.3		ug/L		95	26 - 137	8	66
Fluorene	<0.19		19.2	17.1		ug/L		89	59 - 121	13	38
Indeno[1,2,3-cd]pyrene	<0.19		19.2	18.1		ug/L		94	1 - 171	29	99
Naphthalene	<0.19		19.2	14.5		ug/L		75	21 - 133	20	65
Phenanthrene	<0.19		19.2	17.9		ug/L		93	54 - 120	16	39
Pyrene	<0.19		19.2	18.8		ug/L		98	52 - 120	14	49

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	85		28 - 127
2-Fluorobiphenyl (Surr)	80		31 - 120
2-Fluorophenol (Surr)	42		17 - 120
Nitrobenzene-d5 (Surr)	67		27 - 120
Phenol-d6 (Surr)	27		10 - 120
p-Terphenyl-d14 (Surr)	84		45 - 120

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

Lab Sample ID: MB 570-527285/10

Matrix: Water

Analysis Batch: 527285

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
GRO (C6-C10)	<10		10	ug/L			01/28/25 18:01	1

  

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	90		38 - 134		01/28/25 18:01	1

Lab Sample ID: LCS 570-527285/1008

Matrix: Water

Analysis Batch: 527285

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Gasoline Range Organics (C4-C13)	400	366		ug/L		92	78 - 120

# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

**Lab Sample ID: LCS 570-527285/1008**  
**Matrix: Water**  
**Analysis Batch: 527285**

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

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		38 - 134

**Lab Sample ID: LCSD 570-527285/9**  
**Matrix: Water**  
**Analysis Batch: 527285**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	400	390		ug/L		98	78 - 120	6	10

  

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

**Lab Sample ID: MRL 570-527285/1003**  
**Matrix: Water**  
**Analysis Batch: 527285**

**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

  

	MRL	MRL	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		38 - 134

**Lab Sample ID: 380-131757-C-1 MS**  
**Matrix: Water**  
**Analysis Batch: 527285**

**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	379		ug/L		95	68 - 122

  

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		38 - 134

**Lab Sample ID: 380-131757-C-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 527285**

**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	382		ug/L		96	68 - 122	1	18

  

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		38 - 134

# QC Sample Results

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

Job ID: 380-131771-1  
SDG: Weekly

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

**Lab Sample ID: MB 570-527005/1-A**  
**Matrix: Water**  
**Analysis Batch: 529047**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 527005**

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (C10-C24)	<25		25	ug/L		01/27/25 18:31	02/03/25 00:04	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		01/27/25 18:31	02/03/25 00:04	1
C8-C18	<25		25	ug/L		01/27/25 18:31	02/03/25 00:04	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
n-Octacosane (Surr)	114		60 - 130			01/27/25 18:31	02/03/25 00:04	1

**Lab Sample ID: LCS 570-527005/2-A**  
**Matrix: Water**  
**Analysis Batch: 529047**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 527005**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	1600	1620		ug/L		101	56 - 127
Surrogate	LCS LCS		Limits				
	%Recovery	Qualifier					
n-Octacosane (Surr)	111		60 - 130				

**Lab Sample ID: LCSD 570-527005/3-A**  
**Matrix: Water**  
**Analysis Batch: 529047**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 527005**

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	Limit
		Result	Qualifier						
C10-C28	1600	1640		ug/L		102	56 - 127	1	23
Surrogate	LCSD LCSD		Limits						
	%Recovery	Qualifier							
n-Octacosane (Surr)	112		60 - 130						

**Lab Sample ID: MRL 570-527005/4-A**  
**Matrix: Water**  
**Analysis Batch: 529047**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 527005**

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	0.0200	<0.020		mg/L		98	50 - 150
Surrogate	MRL MRL		Limits				
	%Recovery	Qualifier					
n-Octacosane (Surr)	97		60 - 130				

**Lab Sample ID: 380-131757-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 529047**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 527005**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
C10-C28	<26		1630	1690		ug/L		104	70 - 130
Surrogate	MS MS		Limits						
	%Recovery	Qualifier							
n-Octacosane (Surr)	109		60 - 130						



# QC Sample Results

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

Job ID: 380-131771-1  
 SDG: Weekly

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

**Lab Sample ID: 380-131757-B-1-B MSD**

**Matrix: Water**

**Analysis Batch: 529047**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 527005**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1630	1670		ug/L		103	70 - 130	1	20
<i>MSD MSD</i>											
Surrogate	%Recovery	MSD Qualifier	Limits								
<i>n-Octacosane (Surr)</i>	111		60 - 130								

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# QC Association Summary

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

Job ID: 380-131771-1  
SDG: Weekly

## GC/MS Semi VOA

### Prep Batch: 130212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131771-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	
MB 380-130212/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-130212/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-130212/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-130632-Q-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-130655-O-1-A DU	Duplicate	Total/NA	Water	525.2	

### Analysis Batch: 130440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131771-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	130212
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	130212
MB 380-130212/21-A	Method Blank	Total/NA	Water	525.2	130212
LCS 380-130212/23-A	Lab Control Sample	Total/NA	Water	525.2	130212
MRL 380-130212/22-A	Lab Control Sample	Total/NA	Water	525.2	130212
380-130632-Q-1-A MS	Matrix Spike	Total/NA	Water	525.2	130212
380-130655-O-1-A DU	Duplicate	Total/NA	Water	525.2	130212

### Prep Batch: 526428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131771-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	625.1	
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1	
MB 570-526428/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-526428/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-526428/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-131757-A-1-B MS	Matrix Spike	Total/NA	Water	625.1	
380-131757-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

### Analysis Batch: 529868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131771-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	625.1 SIM	526428
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1 SIM	526428
MB 570-526428/1-A	Method Blank	Total/NA	Water	625.1 SIM	526428
LCS 570-526428/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	526428
LCSD 570-526428/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	526428
380-131757-A-1-B MS	Matrix Spike	Total/NA	Water	625.1 SIM	526428
380-131757-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	526428

### Analysis Batch: 530137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131771-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	625.1	526428
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1	526428
MB 570-526428/1-A	Method Blank	Total/NA	Water	625.1	526428

## GC VOA

### Analysis Batch: 527285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131771-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	8015B GRO LL	
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B GRO LL	
380-131771-3	TB:AIEA GULCH WELLS P1 (331-201-TP071)	Total/NA	Water	8015B GRO LL	

# QC Association Summary

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

Job ID: 380-131771-1  
 SDG: Weekly

## GC VOA (Continued)

### Analysis Batch: 527285 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131771-4	TB:AIEA GULCH WELLS P2 (331-202-TP072)	Total/NA	Water	8015B GRO LL	
MB 570-527285/10	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-527285/1008	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-527285/9	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-527285/1003	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-131757-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-131757-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

## GC Semi VOA

### Prep Batch: 527005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131771-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	3510C	
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	3510C	
MB 570-527005/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-527005/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-527005/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-527005/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-131757-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-131757-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

### Analysis Batch: 529047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131771-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	8015B	527005
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B	527005
MB 570-527005/1-A	Method Blank	Total/NA	Water	8015B	527005
LCS 570-527005/2-A	Lab Control Sample	Total/NA	Water	8015B	527005
LCSD 570-527005/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	527005
MRL 570-527005/4-A	Lab Control Sample	Total/NA	Water	8015B	527005
380-131757-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	527005
380-131757-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	527005

# Lab Chronicle

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

Job ID: 380-131771-1  
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-131771-1**

**Date Collected: 01/21/25 10:19**

**Matrix: Drinking Water**

**Date Received: 01/23/25 09:37**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			130212	OTM3	EA POM	01/24/25 09:25
Total/NA	Analysis	525.2		1	130440	Q8LA	EA POM	01/26/25 21:57
Total/NA	Prep	625.1			526428	UD4J	EET CAL 4	01/24/25 19:44
Total/NA	Analysis	625.1		1	530137	J7WE	EET CAL 4	02/05/25 12:02
Total/NA	Prep	625.1			526428	UD4J	EET CAL 4	01/24/25 19:44
Total/NA	Analysis	625.1 SIM		1	529868	J7WE	EET CAL 4	02/05/25 04:21
Total/NA	Analysis	8015B GRO LL		1	527285	W4LC	EET CAL 4	01/28/25 21:35
Total/NA	Prep	3510C			527005	TVD6	EET CAL 4	01/27/25 18:31
Total/NA	Analysis	8015B		1	529047	H6FE	EET CAL 4	02/03/25 03:17

**Client Sample ID: AIEA GULCH WELLS PUMP 2  
(331-202-TP072)**

**Lab Sample ID: 380-131771-2**

**Date Collected: 01/21/25 10:34**

**Matrix: Drinking Water**

**Date Received: 01/23/25 09:37**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			130212	OTM3	EA POM	01/24/25 09:25
Total/NA	Analysis	525.2		1	130440	Q8LA	EA POM	01/26/25 22:17
Total/NA	Prep	625.1			526428	UD4J	EET CAL 4	01/24/25 19:44
Total/NA	Analysis	625.1		1	530137	J7WE	EET CAL 4	02/05/25 12:25
Total/NA	Prep	625.1			526428	UD4J	EET CAL 4	01/24/25 19:44
Total/NA	Analysis	625.1 SIM		1	529868	J7WE	EET CAL 4	02/05/25 04:43
Total/NA	Analysis	8015B GRO LL		1	527285	W4LC	EET CAL 4	01/28/25 21:59
Total/NA	Prep	3510C			527005	TVD6	EET CAL 4	01/27/25 18:31
Total/NA	Analysis	8015B		1	529047	H6FE	EET CAL 4	02/03/25 03:39

**Client Sample ID: TB:AIEA GULCH WELLS P1 (331-201-TP071)**

**Lab Sample ID: 380-131771-3**

**Date Collected: 01/21/25 10:19**

**Matrix: Water**

**Date Received: 01/23/25 09:37**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	527285	W4LC	EET CAL 4	01/29/25 00:25

**Client Sample ID: TB:AIEA GULCH WELLS P2 (331-202-TP072)**

**Lab Sample ID: 380-131771-4**

**Date Collected: 01/21/25 10:34**

**Matrix: Water**

**Date Received: 01/23/25 09:37**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	527285	W4LC	EET CAL 4	01/29/25 00:50

**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: 380-131771-1  
 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	Drinking Water	1-Methylnaphthalene
525.2	525.2	Drinking Water	2,4'-DDD
525.2	525.2	Drinking Water	2,4'-DDE
525.2	525.2	Drinking Water	2,4'-DDT
525.2	525.2	Drinking Water	2,4-Dinitrotoluene
525.2	525.2	Drinking Water	2,6-Dinitrotoluene
525.2	525.2	Drinking Water	2-Methylnaphthalene
525.2	525.2	Drinking Water	4,4'-DDD
525.2	525.2	Drinking Water	4,4'-DDE
525.2	525.2	Drinking Water	4,4' DDT
525.2	525.2	Drinking Water	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	beta-BHC
525.2	525.2	Drinking Water	Chlorobenzilate
525.2	525.2	Drinking Water	Chloroneb
525.2	525.2	Drinking Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Drinking Water	Chlorpyrifos
525.2	525.2	Drinking Water	delta-BHC
525.2	525.2	Drinking Water	Diclorvos (DDVP)
525.2	525.2	Drinking Water	Endosulfan I (Alpha)
525.2	525.2	Drinking Water	Endosulfan II (Beta)
525.2	525.2	Drinking Water	Endosulfan sulfate
525.2	525.2	Drinking Water	Endrin aldehyde
525.2	525.2	Drinking Water	EPTC
525.2	525.2	Drinking Water	gamma-Chlordane
525.2	525.2	Drinking Water	Isophorone
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbutylazine
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking 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 Summary

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

Job ID: 380-131771-1  
SDG: Weekly

## Laboratory: Eurofins Calscience (Continued)

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

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

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# Method Summary

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

Job ID: 380-131771-1  
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: 380-131771-1  
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-131771-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	01/21/25 10:19	01/23/25 09:37	HI0000331
380-131771-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	01/21/25 10:34	01/23/25 09:37	HI0000331
380-131771-3	TB:AIEA GULCH WELLS P1 (331-201-TP071)	Water	01/21/25 10:19	01/23/25 09:37	
380-131771-4	TB:AIEA GULCH WELLS P2 (331-202-TP072)	Water	01/21/25 10:34	01/23/25 09:37	

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# Chain of Custody Record

<b>Client Information</b>		Lab PM: Arada, Rachelle	Carrier Tracking No(s)	COC No: 380-28005-2757 1										
Client Contact: Dr. Ron Fenstemacher		E-Mail: Rachelle.Arada@et.eurofins.com	State of Origin:	Page: Page 1 of 1										
Company: City & County of Honolulu		PWSID:	Job #:											
Address: 630 South Beretania Street Chemistry Lab Honolulu HI, 96843		Due Date Requested	<b>Analysis Requested</b>											
Phone: 808-748-5091(Tel)		TAT Requested (days):	Preservation Codes R - NaThioSO4 RA - NaThioHCl Q - Na2SO3 QA - Na2SO3/HCl Y - Trizma I - NH4 Acetate											
Email: RFENSTEMACHER@hbws.org		Compliance Project: Δ Yes Δ No	Other:											
Project #: 38001111		PO #: C20525101 exp 05312023	Total Number of containers											
Event Desc: RUSH Weekly Red Hill		WO #:	Special Instructions/Note:											
Site: Hawaii		SSOW#:												
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code: (AT=Trizma, A=Ac)	Matrix (W=water, S=solid, O=water/oil)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	625.1, 625.1, SIM	6015B_GRO_LL - (MOD) GRO	6015B_DRO_LL_CS - HNL Ranges C10-C24/C24-C36/C8-C18	525.2_PREC - (MOD) 525plus Plus TICs	537.1_DW_PREC - 537.1 Full List	633 - All Analytes	
Aiea Gulch Wells Pump 1	21-Jan-2025	1019	G		Water			2	3	2	2			
Aiea Gulch Wells Pump 1 (Matrix Spike)					Water									
Aiea Gulch Wells Pump 1 (Matrix Spike Duplicate)					Water									
TB: Aiea Gulch Wells Pump 1	21-Jan-2025	1019			Water			2						
Aiea Gulch Wells Pump 2	21-Jan-2025	1034	G		Water			2	3	2	2			
Aiea Gulch Wells Pump 2 (Matrix Spike)					Water									
Aiea Gulch Wells Pump 2 (Matrix Spike Duplicate)					Water									
TB: Aiea Gulch Wells Pump 2	21-Jan-2025	1034			Water			2						380-131771 COC
<b>Possible Hazard Identification</b> <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 Deliverable Requested I, II, III, IV, Other (specify)														
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: 07716 0684 817 ② 7716 0684 8128 Method of Shipment: FEDEX ③ 7716 0684 8139														
Empty Kit Relinquished by:		Date:	Time:											
Relinquished by:		Date/Time: 2/28/2025 1400	Company: HBWS											
Relinquished by:		Date/Time:	Company:											
Relinquished by:		Date/Time:	Company:											
Custody Seals Intact: Δ Yes Δ No		Custody Seal No												

Ver: 04/02/2024



**Chain of Custody Record**



<b>Client Information (Sub Contract Lab)</b>		Sampler: N/A	Lab Pkt: Arada, Rachelle	Carrier Tracking No(s): N/A	QC No: 380-185322.1
Shipping/Receiving		Phone: N/A	E-Mail: Rachelle.Arada@eurofins.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest		Accreditations Required (See note): State Hawaii		Job #: 380-131771-1	
Address: 2841 Dow Avenue, Suite 100, Tustin, CA, 92780		Due Date Requested: 2/5/2025		Preservation Codes:	
Phone: 714-895-5484(Tel)		TAT Requested (days): N/A		Analysis Requested:	
Email: N/A		PO #: N/A		80158 GRO_LL_6030C (MOD) GRO	
Project Name: RED-HILL		WO #: N/A		825.1 SIM#25 Prep (MOD) Extended PAH List	
Site: Honolulu BWS Sites		Project #: 38001111		825.1925 Prep (Hold) Compounds (Hold)	
		SSOW#: N/A		80158 DRO_LL_CS3510C_LL_HNL Ranges: C10-C24/C24-C36/C8-C18	
				Perform MS/MSD (Yes or No)	
				Field Filtered Sample (Yes or No)	
				Total Number of Containers	
				Other: N/A	
				Special Instructions/Note:	
				MRLs are needed. Confirm any hits >RL.	
				MRLs are needed. Confirm any hits >RL.	
				MRLs are needed.	
				MRLs are needed.	

  

Sample Identification	Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, S=Solid, O=Other)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	80158 DRO_LL_CS3510C_LL_HNL Ranges: C10-C24/C24-C36/C8-C18	825.1 SIM#25 Prep (MOD) Extended PAH List	825.1925 Prep (Hold) Compounds (Hold)	80158 GRO_LL_6030C (MOD) GRO	Total Number of Containers	Special Instructions/Note
AIEA GULCH WELLS PUMP 1	(331-201 TP071) (380-131771-1)	1/21/25	10:19 Hawaiian	G	Water		X	X	X	X	X	X	7	MRLs are needed. Confirm any hits >RL.
AIEA GULCH WELLS PUMP 2	(331-202-TP072) (380-131771-2)	1/21/25	10:34 Hawaiian	G	Water		X	X	X	X	X	X	7	MRLs are needed. Confirm any hits >RL.
TB:AIEA GULCH WELLS P1	(331-201 TP071) (380-131771-3)	1/21/25	10:19 Hawaiian	G	Water					X			2	MRLs are needed.
TB:AIEA GULCH WELLS P2	(331-202-TP072) (380-131771-4)	1/21/25	10:34 Hawaiian	G	Water					X			2	MRLs are needed.

  

380-131771 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/test/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2  
 Special Instructions/QC Requirements:  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Relinquished by: <i>[Signature]</i>	Date: 1/24/25	Company: EPA	Received by: <i>[Signature]</i>	Date/Time: 1/24/25 11:20:13C	Company: Company
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact:  Yes  No  
 Cooler Temperature(s) °C and Other Remarks: 1.6 / 1.8 self



## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-131771-1

SDG Number: Weekly

**Login Number: 131771**

**List Number: 1**

**Creator: Ngo, Theodore**

**List Source: Eurofins Eaton Analytical Pomona**

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



## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-131771-1

SDG Number: Weekly

**Login Number: 131771**

**List Number: 2**

**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**

**List Creation: 01/24/25 03:19 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	1.8
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	