

# ANALYTICAL REPORT

## PREPARED FOR

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## JOB DESCRIPTION

RED-HILL  
Weekly: Ka'amilo Wells Pump 1/Pump 2

## JOB NUMBER

380-178569-1

# 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: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

## Qualifiers

### GC/MS Semi VOA

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

### GC/MS Semi VOA TICs

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

### GC Semi VOA

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

## Glossary

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

# Case Narrative

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

Job ID: 380-178569-1

**Job ID: 380-178569-1**

**Eurofins Eaton Analytical Pomona**

## **Job Narrative 380-178569-1**

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

### **Receipt**

The samples were received on 10/22/2025 10:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.5°C, 1.9°C, 2.2°C, 3.3°C, 5.3°C and 5.7°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: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

## Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-178569-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.076		0.0097	ug/L	1		525.2	Total/NA
Heptachlor epoxide (isomer B)	0.013		0.0097	ug/L	1		525.2	Total/NA

## Client Sample ID: TB: Ka'amilo Wells Pump 1

Lab Sample ID: 380-178569-2

No Detections.

## Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-178569-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.067		0.0097	ug/L	1		525.2	Total/NA
Heptachlor epoxide (isomer B)	0.012		0.0097	ug/L	1		525.2	Total/NA

## Client Sample ID: TB: Ka'amilo Wells Pump 2

Lab Sample ID: 380-178569-4

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: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

**Client Sample ID: Ka'amilo Wells Pump 1**

**Lab Sample ID: 380-178569-1**

Date Collected: 10/20/25 12:03

Matrix: Water

Date Received: 10/22/25 10:08

**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		10/27/25 07:42	10/28/25 14:38	1
2,4'-DDD	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
2,4'-DDE	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
2,4'-DDT	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
2-Methylnaphthalene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
4,4'-DDD	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
4,4'-DDE	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
4,4'-DDT	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Acenaphthene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Acenaphthylene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Acetochlor	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Alachlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
alpha-BHC	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
alpha-Chlordane	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Anthracene	<0.019		0.019	ug/L		10/27/25 07:42	10/28/25 14:38	1
Atrazine	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Benz(a)anthracene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Benzo[a]pyrene	<0.019		0.019	ug/L		10/27/25 07:42	10/28/25 14:38	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		10/27/25 07:42	10/28/25 14:38	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		10/27/25 07:42	10/28/25 14:38	1
beta-BHC	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		10/27/25 07:42	10/28/25 14:38	1
Bromacil	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Butachlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Butylbenzylphthalate	<0.49		0.49	ug/L		10/27/25 07:42	10/28/25 14:38	1
Chlorobenzilate	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Chloroneb	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Chlorpyrifos	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Chrysene	<0.019		0.019	ug/L		10/27/25 07:42	10/28/25 14:38	1
delta-BHC	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		10/27/25 07:42	10/28/25 14:38	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
<b>Dieldrin</b>	<b>0.076</b>		0.0097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Diethylphthalate	<0.49		0.49	ug/L		10/27/25 07:42	10/28/25 14:38	1
Dimethylphthalate	<0.49		0.49	ug/L		10/27/25 07:42	10/28/25 14:38	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		10/27/25 07:42	10/28/25 14:38	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Endosulfan sulfate	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Endrin	<0.0097		0.0097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Endrin aldehyde	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
EPTC	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Fluoranthene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1

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# Client Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

**Client Sample ID: Ka'amilo Wells Pump 1**

**Lab Sample ID: 380-178569-1**

Date Collected: 10/20/25 12:03

Matrix: Water

Date Received: 10/22/25 10:08

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
gamma-Chlordane	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Heptachlor	<0.0097		0.0097	ug/L		10/27/25 07:42	10/28/25 14:38	1
<b>Heptachlor epoxide (isomer B)</b>	<b>0.013</b>		0.0097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Hexachlorobenzene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Isophorone	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Lindane	<0.0097		0.0097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Malathion	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Methoxychlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Metolachlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Molinate	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Naphthalene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Parathion	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Phenanthrene	<0.039		0.039	ug/L		10/27/25 07:42	10/28/25 14:38	1
Propachlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Pyrene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Simazine	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Terbacil	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Terbutylazine	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Thiobencarb	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		10/27/25 07:42	10/28/25 14:38	1
trans-Nonachlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:38	1
Trifluralin	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:38	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	10/27/25 07:42	10/28/25 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	100		70 - 130	10/27/25 07:42	10/28/25 14:38	1
Perylene-d12	93		70 - 130	10/27/25 07:42	10/28/25 14:38	1
Triphenylphosphate	109		70 - 130	10/27/25 07:42	10/28/25 14:38	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		10/27/25 08:06	11/05/25 09:01	1
2-Methylnaphthalene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Acenaphthene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Acenaphthylene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Anthracene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Benzo[a]anthracene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Benzo[a]pyrene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Chrysene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Fluoranthene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1

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# Client Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

**Client Sample ID: Ka'amilo Wells Pump 1**

**Lab Sample ID: 380-178569-1**

Date Collected: 10/20/25 12:03

Matrix: Water

Date Received: 10/22/25 10:08

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Naphthalene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Phenanthrene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1
Pyrene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	73		28 - 127	10/27/25 08:06	11/05/25 09:01	1
2-Fluorobiphenyl (Surr)	77		31 - 120	10/27/25 08:06	11/05/25 09:01	1
2-Fluorophenol (Surr)	49		17 - 120	10/27/25 08:06	11/05/25 09:01	1
Nitrobenzene-d5 (Surr)	82		27 - 120	10/27/25 08:06	11/05/25 09:01	1
Phenol-d6 (Surr)	31		10 - 120	10/27/25 08:06	11/05/25 09:01	1
p-Terphenyl-d14 (Surr)	75		45 - 120	10/27/25 08:06	11/05/25 09:01	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
Methylene Chloride	66	T J N	ug/L		1.48	75-09-2	10/27/25 08:06	11/07/25 00:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	80		33 - 139	10/27/25 08:06	11/07/25 00:23	1
2-Fluorobiphenyl (Surr)	81		33 - 126	10/27/25 08:06	11/07/25 00:23	1
2-Fluorophenol (Surr)	49		12 - 120	10/27/25 08:06	11/07/25 00:23	1
Nitrobenzene-d5 (Surr)	81		36 - 120	10/27/25 08:06	11/07/25 00:23	1
Phenol-d6 (Surr)	31		10 - 120	10/27/25 08:06	11/07/25 00:23	1
p-Terphenyl-d14 (Surr)	85		47 - 131	10/27/25 08:06	11/07/25 00:23	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			10/31/25 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		38 - 134		10/31/25 16:35	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)	<25		25	ug/L		10/26/25 09:36	11/05/25 04:01	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		10/26/25 09:36	11/05/25 04:01	1
C8-C18	<25		25	ug/L		10/26/25 09:36	11/05/25 04:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	106		60 - 130	10/26/25 09:36	11/05/25 04:01	1

**Client Sample ID: TB: Ka'amilo Wells Pump 1**

**Lab Sample ID: 380-178569-2**

Date Collected: 10/20/25 12:03

Matrix: Water

Date Received: 10/22/25 10:08

**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			10/31/25 15:06	1

# Client Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

**Client Sample ID: TB: Ka'amilo Wells Pump 1**

**Lab Sample ID: 380-178569-2**

Date Collected: 10/20/25 12:03

Matrix: Water

Date Received: 10/22/25 10:08

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		38 - 134		10/31/25 15:06	1

**Client Sample ID: Ka'amilo Wells Pump 2**

**Lab Sample ID: 380-178569-3**

Date Collected: 10/20/25 12:46

Matrix: Water

Date Received: 10/22/25 10:08

**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		10/27/25 07:42	10/28/25 14:58	1
2,4'-DDD	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
2,4'-DDE	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
2,4'-DDT	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
2-Methylnaphthalene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
4,4'-DDD	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
4,4'-DDE	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
4,4'-DDT	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Acenaphthene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Acenaphthylene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Acetochlor	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Alachlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
alpha-BHC	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
alpha-Chlordane	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Anthracene	<0.019		0.019	ug/L		10/27/25 07:42	10/28/25 14:58	1
Atrazine	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Benz(a)anthracene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Benzo[a]pyrene	<0.019		0.019	ug/L		10/27/25 07:42	10/28/25 14:58	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		10/27/25 07:42	10/28/25 14:58	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		10/27/25 07:42	10/28/25 14:58	1
beta-BHC	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		10/27/25 07:42	10/28/25 14:58	1
Bromacil	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Butachlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Butylbenzylphthalate	<0.49		0.49	ug/L		10/27/25 07:42	10/28/25 14:58	1
Chlorobenzilate	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Chloroneb	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Chlorpyrifos	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Chrysene	<0.019		0.019	ug/L		10/27/25 07:42	10/28/25 14:58	1
delta-BHC	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		10/27/25 07:42	10/28/25 14:58	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
<b>Dieldrin</b>	<b>0.067</b>		0.0097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Diethylphthalate	<0.49		0.49	ug/L		10/27/25 07:42	10/28/25 14:58	1
Dimethylphthalate	<0.49		0.49	ug/L		10/27/25 07:42	10/28/25 14:58	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		10/27/25 07:42	10/28/25 14:58	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1

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# Client Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

**Client Sample ID: Ka'amilo Wells Pump 2**

**Lab Sample ID: 380-178569-3**

Date Collected: 10/20/25 12:46

Matrix: Water

Date Received: 10/22/25 10:08

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I (Alpha)	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Endosulfan sulfate	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Endrin	<0.0097		0.0097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Endrin aldehyde	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
EPTC	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Fluoranthene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Fluorene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
gamma-Chlordane	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Heptachlor	<0.0097		0.0097	ug/L		10/27/25 07:42	10/28/25 14:58	1
<b>Heptachlor epoxide (isomer B)</b>	<b>0.012</b>		0.0097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Hexachlorobenzene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Isophorone	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Lindane	<0.0097		0.0097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Malathion	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Methoxychlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Metolachlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Molinate	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Naphthalene	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Parathion	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Phenanthrene	<0.039		0.039	ug/L		10/27/25 07:42	10/28/25 14:58	1
Propachlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Pyrene	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Simazine	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Terbacil	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Terbutylazine	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Thiobencarb	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		10/27/25 07:42	10/28/25 14:58	1
trans-Nonachlor	<0.049		0.049	ug/L		10/27/25 07:42	10/28/25 14:58	1
Trifluralin	<0.097		0.097	ug/L		10/27/25 07:42	10/28/25 14:58	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	10/27/25 07:42	10/28/25 14:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	99		70 - 130	10/27/25 07:42	10/28/25 14:58	1
Perylene-d12	91		70 - 130	10/27/25 07:42	10/28/25 14:58	1
Triphenylphosphate	107		70 - 130	10/27/25 07:42	10/28/25 14:58	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		10/27/25 08:06	11/05/25 09:24	1
2-Methylnaphthalene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Acenaphthene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Acenaphthylene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Anthracene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Benzo[a]anthracene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1

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# Client Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

**Client Sample ID: Ka'amilo Wells Pump 2**

**Lab Sample ID: 380-178569-3**

Date Collected: 10/20/25 12:46

Matrix: Water

Date Received: 10/22/25 10:08

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Chrysene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Dibenz[a,h]anthracene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Fluoranthene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Fluorene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Naphthalene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Phenanthrene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1
Pyrene	<0.19		0.19	ug/L		10/27/25 08:06	11/05/25 09:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	74		28 - 127	10/27/25 08:06	11/05/25 09:24	1
2-Fluorobiphenyl (Surr)	80		31 - 120	10/27/25 08:06	11/05/25 09:24	1
2-Fluorophenol (Surr)	50		17 - 120	10/27/25 08:06	11/05/25 09:24	1
Nitrobenzene-d5 (Surr)	83		27 - 120	10/27/25 08:06	11/05/25 09:24	1
Phenol-d6 (Surr)	32		10 - 120	10/27/25 08:06	11/05/25 09:24	1
p-Terphenyl-d14 (Surr)	81		45 - 120	10/27/25 08:06	11/05/25 09:24	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
Cyclohexene	35	T J N	ug/L		1.48	110-83-8	10/27/25 08:06	11/07/25 00:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	85		33 - 139	10/27/25 08:06	11/07/25 00:47	1
2-Fluorobiphenyl (Surr)	94		33 - 126	10/27/25 08:06	11/07/25 00:47	1
2-Fluorophenol (Surr)	49		12 - 120	10/27/25 08:06	11/07/25 00:47	1
Nitrobenzene-d5 (Surr)	86		36 - 120	10/27/25 08:06	11/07/25 00:47	1
Phenol-d6 (Surr)	31		10 - 120	10/27/25 08:06	11/07/25 00:47	1
p-Terphenyl-d14 (Surr)	94		47 - 131	10/27/25 08:06	11/07/25 00:47	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			10/31/25 16:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		38 - 134		10/31/25 16:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<26		26	ug/L		10/26/25 09:36	11/05/25 04:21	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		10/26/25 09:36	11/05/25 04:21	1
C8-C18	<26		26	ug/L		10/26/25 09:36	11/05/25 04:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	108		60 - 130	10/26/25 09:36	11/05/25 04:21	1

# Client Sample Results

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

Job ID: 380-178569-1  
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

**Client Sample ID: TB: Ka'amilo Wells Pump 2**

**Lab Sample ID: 380-178569-4**

Date Collected: 10/20/25 12:46

Matrix: Water

Date Received: 10/22/25 10:08

**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			10/31/25 15:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		38 - 134				10/31/25 15:29	1

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

# Action Limit Summary

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

## Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-178569-1

### 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	<0.019		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)	0.013		ug/L	0.2	0.0097	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	<0.0097		ug/L	0.2	0.0097	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: Ka'amilo Wells Pump 2

Lab Sample ID: 380-178569-3

### Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		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)	0.012		ug/L	0.2	0.0097	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	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

# Surrogate Summary

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

## 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)
380-178569-1	Ka'amilo Wells Pump 1	100	93	109
380-178569-3	Ka'amilo Wells Pump 2	99	91	107
380-178570-H-1-A DU	Duplicate	99	94	108
380-179066-N-1-A MS	Matrix Spike	99	96	113
LCS 380-182502/22-A	Lab Control Sample	99	97	112
MB 380-182502/20-A	Method Blank	98	88	109
MRL 380-182502/21-A	Lab Control Sample	97	92	110

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (33-139)	FBP (33-126)	2FP (12-120)	NBZ (36-120)	PHL6 (10-120)	TPHd14 (47-131)
380-178569-1	Ka'amilo Wells Pump 1	80	81	49	81	31	85
380-178569-3	Ka'amilo Wells Pump 2	85	94	49	86	31	94
MB 570-646557/1-A	Method Blank	87	92	58	90	33	95

**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)
380-178569-1	Ka'amilo Wells Pump 1	73	77	49	82	31	75
380-178569-3	Ka'amilo Wells Pump 2	74	80	50	83	32	81
380-178571-A-1-A MS	Matrix Spike	81	83	61	77	40	88
380-178571-A-1-B MSD	Matrix Spike Duplicate	64	65	49	62	32	72
LCS 570-646557/2-A	Lab Control Sample	80	82	63	76	42	87
LCSD 570-646557/3-A	Lab Control Sample Dup	76	78	57	74	37	86
MB 570-646557/1-A	Method Blank	76	75	55	86	35	84

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

# Surrogate Summary

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

Job ID: 380-178569-1  
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

## 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)
380-178569-1	Ka'amilo Wells Pump 1	95
380-178569-2	TB: Ka'amilo Wells Pump 1	94
380-178569-3	Ka'amilo Wells Pump 2	95
380-178569-4	TB: Ka'amilo Wells Pump 2	100
380-179754-B-1 MS	Matrix Spike	99
380-179754-B-1 MSD	Matrix Spike Duplicate	97
LCS 570-649292/1009	Lab Control Sample	89
LCSD 570-649292/10	Lab Control Sample Dup	96
MB 570-649292/11	Method Blank	98
MRL 570-649292/1004	Lab Control Sample	97
<b>Surrogate Legend</b>		
BFB = 4-Bromofluorobenzene (Surr)		

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-178569-1	Ka'amilo Wells Pump 1	106
380-178569-3	Ka'amilo Wells Pump 2	108
380-178571-B-1-A MS	Matrix Spike	116
380-178571-B-1-B MSD	Matrix Spike Duplicate	99
LCS 570-646316/2-A	Lab Control Sample	124
LCSD 570-646316/3-A	Lab Control Sample Dup	120
MB 570-646316/1-A	Method Blank	115
MRL 570-646316/4-A	Lab Control Sample	97
<b>Surrogate Legend</b>		
OTCSN = n-Octacosane (Surr)		

# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: MB 380-182502/20-A**  
**Matrix: Water**  
**Analysis Batch: 182759**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 182502**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
2,4'-DDD	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
2,4'-DDE	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
2,4'-DDT	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
2-Methylnaphthalene	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
4,4'-DDD	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
4,4'-DDE	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
4,4'-DDT	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Acenaphthene	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Acenaphthylene	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Acetochlor	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Alachlor	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
alpha-BHC	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
alpha-Chlordane	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Anthracene	<0.020		0.020	ug/L		10/27/25 07:42	10/28/25 11:56	1
Atrazine	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Benz(a)anthracene	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Benzo[a]pyrene	<0.020		0.020	ug/L		10/27/25 07:42	10/28/25 11:56	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		10/27/25 07:42	10/28/25 11:56	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		10/27/25 07:42	10/28/25 11:56	1
beta-BHC	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		10/27/25 07:42	10/28/25 11:56	1
Bromacil	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Butachlor	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Butylbenzylphthalate	<0.50		0.50	ug/L		10/27/25 07:42	10/28/25 11:56	1
Chlorobenzilate	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Chloroneb	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Chlorpyrifos	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Chrysene	<0.020		0.020	ug/L		10/27/25 07:42	10/28/25 11:56	1
delta-BHC	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		10/27/25 07:42	10/28/25 11:56	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Dieldrin	<0.0099		0.0099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Diethylphthalate	<0.50		0.50	ug/L		10/27/25 07:42	10/28/25 11:56	1
Dimethylphthalate	<0.50		0.50	ug/L		10/27/25 07:42	10/28/25 11:56	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		10/27/25 07:42	10/28/25 11:56	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Endosulfan sulfate	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Endrin	<0.0099		0.0099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Endrin aldehyde	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
EPTC	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1

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# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: MB 380-182502/20-A**  
**Matrix: Water**  
**Analysis Batch: 182759**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 182502**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Fluoranthene	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Fluorene	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
gamma-Chlordane	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Heptachlor	<0.0099		0.0099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Hexachlorobenzene	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Isophorone	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Lindane	<0.0099		0.0099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Malathion	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Methoxychlor	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Metolachlor	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Molinate	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Naphthalene	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Parathion	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Phenanthrene	<0.040		0.040	ug/L		10/27/25 07:42	10/28/25 11:56	1
Propachlor	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Pyrene	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Simazine	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Terbacil	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Terbutylazine	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Thiobencarb	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		10/27/25 07:42	10/28/25 11:56	1
trans-Nonachlor	<0.050		0.050	ug/L		10/27/25 07:42	10/28/25 11:56	1
Trifluralin	<0.099		0.099	ug/L		10/27/25 07:42	10/28/25 11:56	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Undecane	1.58	T J N	ug/L		3.13	1120-21-4	10/27/25 07:42	10/28/25 11:56	1
Phenol, p-tert-butyl-	1.11	T J N	ug/L		3.85	98-54-4	10/27/25 07:42	10/28/25 11:56	1
Phenol, 4-(1,1-dimethylpropyl)-	0.625	T J N	ug/L		4.25	80-46-6	10/27/25 07:42	10/28/25 11:56	1
Unknown	0.645	T J	ug/L		14.88	N/A	10/27/25 07:42	10/28/25 11:56	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Nitro-m-xylene	98		70 - 130	10/27/25 07:42	10/28/25 11:56	1
Perylene-d12	88		70 - 130	10/27/25 07:42	10/28/25 11:56	1
Triphenylphosphate	109		70 - 130	10/27/25 07:42	10/28/25 11:56	1

**Lab Sample ID: LCS 380-182502/22-A**  
**Matrix: Water**  
**Analysis Batch: 182759**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 182502**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	1.95	1.81		ug/L		93	70 - 130
2,4'-DDD	1.95	2.08		ug/L		107	70 - 130
2,4'-DDE	1.95	2.09		ug/L		107	70 - 130
2,4'-DDT	1.95	2.05		ug/L		105	70 - 130

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# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: LCS 380-182502/22-A**

**Matrix: Water**

**Analysis Batch: 182759**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 182502**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrotoluene	1.95	2.15		ug/L		111	70 - 130
2,6-Dinitrotoluene	1.95	2.13		ug/L		109	70 - 130
2-Methylnaphthalene	1.95	1.83		ug/L		94	70 - 130
4,4'-DDD	1.95	2.12		ug/L		109	70 - 130
4,4'-DDE	1.95	2.13		ug/L		109	70 - 130
4,4'-DDT	1.95	1.91		ug/L		98	70 - 130
Acenaphthene	1.95	1.90		ug/L		98	70 - 130
Acenaphthylene	1.95	1.94		ug/L		100	70 - 130
Acetochlor	1.95	2.18		ug/L		112	70 - 130
Alachlor	1.95	2.19		ug/L		112	70 - 130
alpha-BHC	1.95	1.94		ug/L		99	70 - 130
alpha-Chlordane	1.95	2.09		ug/L		107	70 - 130
Anthracene	1.95	1.92		ug/L		99	70 - 130
Atrazine	1.95	2.19		ug/L		113	70 - 130
Benz(a)anthracene	1.95	1.83		ug/L		94	70 - 130
Benzo[a]pyrene	1.95	1.95		ug/L		100	70 - 130
Benzo[b]fluoranthene	1.95	2.06		ug/L		106	70 - 130
Benzo[g,h,i]perylene	1.95	1.96		ug/L		101	70 - 130
Benzo[k]fluoranthene	1.95	1.88		ug/L		97	70 - 130
beta-BHC	1.95	1.95		ug/L		100	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	2.26		ug/L		116	70 - 130
Bromacil	1.95	2.20		ug/L		113	70 - 130
Butachlor	1.95	2.15		ug/L		110	70 - 130
Butylbenzylphthalate	1.95	2.28		ug/L		117	70 - 130
Chlorobenzilate	1.95	2.25		ug/L		116	70 - 130
Chloroneb	1.95	1.87		ug/L		96	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.23		ug/L		115	70 - 130
Chlorpyrifos	1.95	2.22		ug/L		114	70 - 130
Chrysene	1.95	1.85		ug/L		95	70 - 130
delta-BHC	1.95	1.92		ug/L		99	70 - 130
Di(2-ethylhexyl)adipate	1.95	2.35		ug/L		121	70 - 130
Dibenz(a,h)anthracene	1.95	1.98		ug/L		102	70 - 130
Diclorvos (DDVP)	1.95	2.06		ug/L		106	70 - 130
Dieldrin	1.95	2.04		ug/L		105	70 - 130
Diethylphthalate	1.95	2.19		ug/L		112	70 - 130
Dimethylphthalate	1.95	2.12		ug/L		109	70 - 130
Di-n-butyl phthalate	3.89	4.43		ug/L		114	70 - 130
Di-n-octyl phthalate	1.95	2.30		ug/L		118	70 - 130
Endosulfan I (Alpha)	1.95	1.92		ug/L		99	70 - 130
Endosulfan II (Beta)	1.95	1.97		ug/L		101	70 - 130
Endosulfan sulfate	1.95	2.19		ug/L		112	70 - 130
Endrin	1.95	2.14		ug/L		110	70 - 130
Endrin aldehyde	1.95	1.97		ug/L		101	60 - 130
EPTC	1.95	2.08		ug/L		107	70 - 130
Fluoranthene	1.95	2.09		ug/L		107	70 - 130
Fluorene	1.95	1.96		ug/L		101	70 - 130
gamma-Chlordane	1.95	2.13		ug/L		109	70 - 130
Heptachlor	1.95	2.17		ug/L		111	70 - 130
Heptachlor epoxide (isomer B)	1.95	2.04		ug/L		105	70 - 130

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# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCS 380-182502/22-A

Matrix: Water

Analysis Batch: 182759

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 182502

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Hexachlorobenzene	1.95	2.03		ug/L		105	70 - 130
Hexachlorocyclopentadiene	1.95	2.04		ug/L		105	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	2.09		ug/L		108	70 - 130
Isophorone	1.95	2.02		ug/L		104	70 - 130
Lindane	1.95	1.96		ug/L		100	70 - 130
Malathion	1.95	2.07		ug/L		106	70 - 130
Methoxychlor	1.95	2.04		ug/L		105	70 - 130
Metolachlor	1.95	2.03		ug/L		104	70 - 130
Molinate	1.95	2.09		ug/L		107	70 - 130
Naphthalene	1.95	1.82		ug/L		94	70 - 130
Parathion	1.95	2.33		ug/L		120	70 - 130
Pendimethalin (Penoxaline)	1.95	2.19		ug/L		112	70 - 130
Phenanthrene	1.95	1.94		ug/L		100	70 - 130
Propachlor	1.95	2.18		ug/L		112	70 - 130
Pyrene	1.95	2.06		ug/L		106	70 - 130
Simazine	1.95	2.12		ug/L		109	70 - 130
Terbacil	1.95	2.19		ug/L		112	70 - 130
Terbutylazine	1.95	2.25		ug/L		116	70 - 130
Thiobencarb	1.95	2.22		ug/L		114	70 - 130
trans-Nonachlor	1.95	1.99		ug/L		102	70 - 130
Trifluralin	1.95	2.18		ug/L		112	70 - 130

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	112		70 - 130

Lab Sample ID: MRL 380-182502/21-A

Matrix: Water

Analysis Batch: 182759

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 182502

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	0.0995	0.120		ug/L		120	50 - 150
2,4'-DDD	0.0995	0.0864	J	ug/L		87	50 - 150
2,4'-DDE	0.0995	0.103		ug/L		103	50 - 150
2,4'-DDT	0.0995	0.0998		ug/L		100	50 - 150
2,4-Dinitrotoluene	0.0995	0.123		ug/L		124	50 - 150
2,6-Dinitrotoluene	0.0995	0.145		ug/L		146	50 - 150
2-Methylnaphthalene	0.0995	0.112		ug/L		112	50 - 150
4,4'-DDD	0.0995	0.103		ug/L		103	50 - 150
4,4'-DDE	0.0995	0.102		ug/L		102	50 - 150
4,4'-DDT	0.0995	0.114		ug/L		115	50 - 150
Acenaphthene	0.0995	0.0915	J	ug/L		92	50 - 150
Acenaphthylene	0.0995	0.0965	J	ug/L		97	50 - 150
Acetochlor	0.0995	0.122		ug/L		123	50 - 150
Alachlor	0.0497	0.0571		ug/L		115	50 - 150
alpha-BHC	0.0995	0.105		ug/L		106	50 - 150
alpha-Chlordane	0.0249	<0.029		ug/L		114	50 - 150

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: MRL 380-182502/21-A**  
**Matrix: Water**  
**Analysis Batch: 182759**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 182502**

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
Anthracene	0.0199	0.0222		ug/L		111	50 - 150
Atrazine	0.0497	0.0504		ug/L		101	50 - 150
Benz(a)anthracene	0.0497	0.0543		ug/L		109	50 - 150
Benzo[a]pyrene	0.0199	0.0270		ug/L		136	50 - 150
Benzo[b]fluoranthene	0.0199	0.0230		ug/L		116	50 - 150
Benzo[g,h,i]perylene	0.0497	0.0537		ug/L		108	50 - 150
Benzo[k]fluoranthene	0.0199	0.0229		ug/L		115	50 - 150
beta-BHC	0.0995	0.112		ug/L		113	50 - 150
Bis(2-ethylhexyl) phthalate	0.597	0.667		ug/L		112	50 - 150
Bromacil	0.0995	0.138		ug/L		138	50 - 150
Butachlor	0.0497	0.0708		ug/L		142	50 - 150
Butylbenzylphthalate	0.497	0.615		ug/L		124	50 - 150
Chlorobenzilate	0.0995	0.119		ug/L		119	50 - 150
Chloroneb	0.0995	0.106		ug/L		107	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0995	0.0941	J	ug/L		95	50 - 150
Chlorpyrifos	0.0497	0.0533		ug/L		107	50 - 150
Chrysene	0.0199	0.0186	J	ug/L		93	50 - 150
delta-BHC	0.0995	0.105		ug/L		105	50 - 150
Di(2-ethylhexyl)adipate	0.597	0.743		ug/L		124	50 - 150
Dibenz(a,h)anthracene	0.0497	0.0563		ug/L		113	50 - 150
Diclorvos (DDVP)	0.0497	0.0625		ug/L		126	50 - 150
Dieldrin	0.00995	0.0134		ug/L		134	50 - 150
Diethylphthalate	0.497	0.587		ug/L		118	50 - 150
Dimethylphthalate	0.497	0.550		ug/L		111	50 - 150
Di-n-butyl phthalate	0.497	0.584	J	ug/L		117	49 - 243
Di-n-octyl phthalate	0.0995	0.111		ug/L		111	50 - 150
Endosulfan I (Alpha)	0.0995	0.0948	J	ug/L		95	50 - 150
Endosulfan II (Beta)	0.0995	0.106		ug/L		106	50 - 150
Endosulfan sulfate	0.0995	0.101		ug/L		102	50 - 150
Endrin	0.00995	0.0104		ug/L		105	50 - 150
Endrin aldehyde	0.0995	0.142		ug/L		143	50 - 150
EPTC	0.0995	0.111		ug/L		111	50 - 150
Fluoranthene	0.0995	0.105		ug/L		105	50 - 150
Fluorene	0.0497	0.0515		ug/L		104	50 - 150
gamma-Chlordane	0.0249	0.0279	J	ug/L		112	50 - 150
Heptachlor	0.00995	0.0100		ug/L		101	50 - 150
Heptachlor epoxide (isomer B)	0.00995	0.0117		ug/L		117	50 - 150
Hexachlorobenzene	0.0497	0.0520		ug/L		105	50 - 150
Hexachlorocyclopentadiene	0.0497	0.0515		ug/L		104	50 - 150
Indeno[1,2,3-cd]pyrene	0.0497	0.0597		ug/L		120	50 - 150
Isophorone	0.0995	0.126		ug/L		126	50 - 150
Lindane	0.00995	0.00943	J	ug/L		95	50 - 150
Malathion	0.0995	0.122		ug/L		122	50 - 150
Methoxychlor	0.0497	0.0574		ug/L		115	50 - 150
Metolachlor	0.0497	0.0652		ug/L		131	50 - 150
Molinate	0.0995	0.111		ug/L		112	50 - 150
Naphthalene	0.0995	0.131		ug/L		132	50 - 150
Parathion	0.0995	0.112		ug/L		112	50 - 150
Pendimethalin (Penoxaline)	0.0995	0.113		ug/L		113	50 - 150

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# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: MRL 380-182502/21-A**

**Matrix: Water**

**Analysis Batch: 182759**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 182502**

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
Phenanthrene	0.0398	0.0396	J	ug/L		100	50 - 150
Propachlor	0.0497	0.0602		ug/L		121	50 - 150
Pyrene	0.0497	0.0515		ug/L		104	50 - 150
Simazine	0.0497	0.0516		ug/L		104	50 - 150
Terbacil	0.0995	0.128		ug/L		129	50 - 150
Terbutylazine	0.0995	0.109		ug/L		110	50 - 150
Thiobencarb	0.0995	0.115		ug/L		116	50 - 150
trans-Nonachlor	0.0249	<0.026		ug/L		101	50 - 150
Trifluralin	0.0995	0.123		ug/L		124	50 - 150

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

**Lab Sample ID: 380-179066-N-1-A MS**

**Matrix: Water**

**Analysis Batch: 182759**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 182502**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
1-Methylnaphthalene	<0.099		1.96	1.84		ug/L		93	70 - 130
2,4'-DDD	<0.099		1.96	2.18		ug/L		111	70 - 130
2,4'-DDE	<0.099		1.96	2.15		ug/L		109	70 - 130
2,4'-DDT	<0.099		1.96	2.19		ug/L		111	70 - 130
2,4-Dinitrotoluene	<0.099		1.96	2.21		ug/L		113	70 - 130
2,6-Dinitrotoluene	<0.099		1.96	2.17		ug/L		110	70 - 130
2-Methylnaphthalene	<0.099		1.96	1.87		ug/L		95	70 - 130
4,4'-DDD	<0.099		1.96	2.23		ug/L		114	70 - 130
4,4'-DDE	<0.099		1.96	2.19		ug/L		111	70 - 130
4,4'-DDT	<0.099		1.96	1.99		ug/L		101	70 - 130
Acenaphthene	<0.099		1.96	1.96		ug/L		100	70 - 130
Acenaphthylene	<0.099		1.96	1.95		ug/L		99	70 - 130
Acetochlor	<0.099		1.96	2.24		ug/L		114	70 - 130
Alachlor	<0.050		1.96	2.22		ug/L		113	70 - 130
alpha-BHC	<0.099		1.96	2.01		ug/L		102	70 - 130
alpha-Chlordane	<0.050		1.96	2.19		ug/L		112	70 - 130
Anthracene	<0.020		1.96	1.80		ug/L		92	70 - 130
Atrazine	<0.050		1.96	2.16		ug/L		110	70 - 130
Benz(a)anthracene	<0.050		1.96	1.93		ug/L		98	70 - 130
Benzo[a]pyrene	<0.020		1.96	1.94		ug/L		99	70 - 130
Benzo[b]fluoranthene	<0.020		1.96	2.03		ug/L		104	70 - 130
Benzo[g,h,i]perylene	<0.050		1.96	1.91		ug/L		97	70 - 130
Benzo[k]fluoranthene	<0.020		1.96	1.89		ug/L		96	70 - 130
beta-BHC	<0.099		1.96	1.98		ug/L		101	70 - 130
Bis(2-ethylhexyl) phthalate	<0.60		1.96	2.28		ug/L		116	70 - 130
Bromacil	<0.099		1.96	2.28		ug/L		116	70 - 130
Butachlor	<0.050		1.96	2.22		ug/L		113	70 - 130
Butylbenzylphthalate	<0.50		1.96	2.36		ug/L		120	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: 380-179066-N-1-A MS**

**Client Sample ID: Matrix Spike**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 182759**

**Prep Batch: 182502**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Chlorobenzilate	<0.099		1.96	2.32		ug/L		118	70 - 130
Chloroneb	<0.099		1.96	1.88		ug/L		96	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.099		1.96	2.26		ug/L		115	70 - 130
Chlorpyrifos	<0.050		1.96	2.30		ug/L		117	70 - 130
Chrysene	<0.020		1.96	1.83		ug/L		93	70 - 130
delta-BHC	<0.099		1.96	1.96		ug/L		100	70 - 130
Di(2-ethylhexyl)adipate	<0.60		1.96	2.43		ug/L		124	70 - 130
Dibenz(a,h)anthracene	<0.050		1.96	2.01		ug/L		102	70 - 130
Diclorvos (DDVP)	<0.050		1.96	2.13		ug/L		109	70 - 130
Dieldrin	<0.0099		1.96	2.09		ug/L		106	70 - 130
Diethylphthalate	<0.50		1.96	2.21		ug/L		113	70 - 130
Dimethylphthalate	<0.50		1.96	2.17		ug/L		111	70 - 130
Di-n-butyl phthalate	<0.99		3.93	4.52		ug/L		115	70 - 130
Di-n-octyl phthalate	<0.099		1.96	2.35		ug/L		120	70 - 130
Endosulfan I (Alpha)	<0.099		1.96	1.98		ug/L		101	70 - 130
Endosulfan II (Beta)	<0.099		1.96	2.03		ug/L		103	70 - 130
Endosulfan sulfate	<0.099		1.96	2.20		ug/L		112	70 - 130
Endrin	<0.0099		1.96	2.17		ug/L		111	70 - 130
Endrin aldehyde	<0.099		1.96	1.54		ug/L		79	60 - 130
EPTC	<0.099		1.96	2.13		ug/L		108	70 - 130
Fluoranthene	<0.099		1.96	2.15		ug/L		110	70 - 130
Fluorene	<0.050		1.96	1.99		ug/L		101	70 - 130
gamma-Chlordane	<0.050		1.96	2.22		ug/L		113	70 - 130
Heptachlor	<0.0099		1.96	2.21		ug/L		112	70 - 130
Heptachlor epoxide (isomer B)	<0.0099		1.96	2.11		ug/L		108	70 - 130
Hexachlorobenzene	<0.050		1.96	2.12		ug/L		108	70 - 130
Hexachlorocyclopentadiene	<0.050		1.96	2.13		ug/L		108	70 - 130
Indeno[1,2,3-cd]pyrene	<0.050		1.96	2.11		ug/L		108	70 - 130
Isophorone	<0.099		1.96	2.08		ug/L		106	70 - 130
Lindane	<0.0099		1.96	2.00		ug/L		102	70 - 130
Malathion	<0.099		1.96	2.12		ug/L		108	70 - 130
Methoxychlor	<0.050		1.96	2.10		ug/L		107	70 - 130
Metolachlor	<0.050		1.96	2.07		ug/L		105	70 - 130
Molinate	<0.099		1.96	2.13		ug/L		108	70 - 130
Naphthalene	<0.099		1.96	1.88		ug/L		96	70 - 130
Parathion	<0.099		1.96	2.39		ug/L		122	70 - 130
Pendimethalin (Penoxaline)	<0.099		1.96	2.32		ug/L		118	70 - 130
Phenanthrene	<0.040		1.96	1.96		ug/L		100	70 - 130
Propachlor	<0.050		1.96	2.24		ug/L		114	70 - 130
Pyrene	<0.050		1.96	2.14		ug/L		109	70 - 130
Simazine	<0.050		1.96	2.11		ug/L		108	70 - 130
Terbacil	<0.099		1.96	2.25		ug/L		115	70 - 130
Terbutylazine	<0.099		1.96	2.28		ug/L		116	70 - 130
Thiobencarb	<0.099		1.96	2.26		ug/L		115	70 - 130
trans-Nonachlor	<0.050		1.96	2.05		ug/L		104	70 - 130
Trifluralin	<0.099		1.96	2.28		ug/L		116	70 - 130

# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: 380-179066-N-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 182759**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 182502**

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	113		70 - 130

**Lab Sample ID: 380-178570-H-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 182759**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 182502**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
1-Methylnaphthalene	<0.099		<0.097		ug/L		NC	20
2,4'-DDD	<0.099		<0.097		ug/L		NC	20
2,4'-DDE	<0.099		<0.097		ug/L		NC	20
2,4'-DDT	<0.099		<0.097		ug/L		NC	20
2,4-Dinitrotoluene	<0.099		<0.097		ug/L		NC	20
2,6-Dinitrotoluene	<0.099		<0.097		ug/L		NC	20
2-Methylnaphthalene	<0.099		<0.097		ug/L		NC	20
4,4'-DDD	<0.099		<0.097		ug/L		NC	20
4,4'-DDE	<0.099		<0.097		ug/L		NC	20
4,4'-DDT	<0.099		<0.097		ug/L		NC	20
Acenaphthene	<0.099		<0.097		ug/L		NC	20
Acenaphthylene	<0.099		<0.097		ug/L		NC	20
Acetochlor	<0.099		<0.097		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.099		<0.097		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.020		<0.019		ug/L		NC	20
Atrazine	<0.049		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.020		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.020		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.020		<0.019		ug/L		NC	20
beta-BHC	<0.099		<0.097		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.58		ug/L		NC	20
Bromacil	<0.099		<0.097		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		ug/L		NC	20
Chlorobenzilate	<0.099		<0.097		ug/L		NC	20
Chloroneb	<0.099		<0.097		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.099		<0.097		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.020		<0.019		ug/L		NC	20
delta-BHC	<0.099		<0.097		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.59		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.049		ug/L		NC	20
Dieldrin	<0.0099		<0.0097		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20

# QC Sample Results

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

Job ID: 380-178569-1  
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: 380-178570-H-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 182759**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 182502**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.99		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.099		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.099		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.099		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.099		<0.097		ug/L		NC	20
Endrin	<0.0099		<0.0097		ug/L		NC	20
Endrin aldehyde	<0.099		<0.097		ug/L		NC	20
EPTC	<0.099		<0.097		ug/L		NC	20
Fluoranthene	<0.099		<0.097		ug/L		NC	20
Fluorene	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20
Heptachlor	<0.0099		<0.0097		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0099		<0.0097		ug/L		NC	20
Hexachlorobenzene	<0.049		<0.049		ug/L		NC	20
Hexachlorocyclopentadiene	<0.049		<0.049		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.049		<0.049		ug/L		NC	20
Isophorone	<0.099		<0.097		ug/L		NC	20
Lindane	<0.0099		<0.0097		ug/L		NC	20
Malathion	<0.099		<0.097		ug/L		NC	20
Methoxychlor	<0.049		<0.049		ug/L		NC	20
Metolachlor	<0.049		<0.049		ug/L		NC	20
Molinate	<0.099		<0.097		ug/L		NC	20
Naphthalene	<0.099		<0.097		ug/L		NC	20
Parathion	<0.099		<0.097		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.099		<0.097		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.049		<0.049		ug/L		NC	20
Pyrene	<0.049		<0.049		ug/L		NC	20
Simazine	<0.049		<0.049		ug/L		NC	20
Terbacil	<0.099		<0.097		ug/L		NC	20
Terbutylazine	<0.099		<0.097		ug/L		NC	20
Thiobencarb	<0.099		<0.097		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.20		<0.19		ug/L		NC	20
trans-Nonachlor	<0.049		<0.049		ug/L		NC	20
Trifluralin	<0.099		<0.097		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	108		70 - 130

# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: MB 570-646557/1-A**  
**Matrix: Water**  
**Analysis Batch: 652536**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 646557**

<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>10/27/25 08:06</i>	<i>11/06/25 23:10</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>	<i>87</i>		<i>33 - 139</i>	<i>10/27/25 08:06</i>	<i>11/06/25 23:10</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>92</i>		<i>33 - 126</i>	<i>10/27/25 08:06</i>	<i>11/06/25 23:10</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>58</i>		<i>12 - 120</i>	<i>10/27/25 08:06</i>	<i>11/06/25 23:10</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>90</i>		<i>36 - 120</i>	<i>10/27/25 08:06</i>	<i>11/06/25 23:10</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>33</i>		<i>10 - 120</i>	<i>10/27/25 08:06</i>	<i>11/06/25 23:10</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>95</i>		<i>47 - 131</i>	<i>10/27/25 08:06</i>	<i>11/06/25 23:10</i>	<i>1</i>

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

**Lab Sample ID: MB 570-646557/1-A**  
**Matrix: Water**  
**Analysis Batch: 651324**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 646557**

<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>
<i>1-Methylnaphthalene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>2-Methylnaphthalene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Acenaphthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Acenaphthylene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Benzo[a]anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Benzo[a]pyrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Benzo[b]fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Benzo[g,h,i]perylene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Benzo[k]fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Chrysene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Dibenz(a,h)anthracene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Fluoranthene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Fluorene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Indeno[1,2,3-cd]pyrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Naphthalene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Phenanthrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Pyrene</i>	<i>&lt;0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>10/27/25 08:06</i>	<i>11/05/25 05:40</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>	<i>76</i>		<i>28 - 127</i>	<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>75</i>		<i>31 - 120</i>	<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>55</i>		<i>17 - 120</i>	<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>86</i>		<i>27 - 120</i>	<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>35</i>		<i>10 - 120</i>	<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>84</i>		<i>45 - 120</i>	<i>10/27/25 08:06</i>	<i>11/05/25 05:40</i>	<i>1</i>

# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: LCS 570-646557/2-A**

**Matrix: Water**

**Analysis Batch: 651324**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 646557**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
1-Methylnaphthalene	20.0	14.1		ug/L		71	47 - 120	
2-Methylnaphthalene	20.0	13.9		ug/L		70	43 - 120	
Acenaphthene	20.0	16.8		ug/L		84	60 - 132	
Acenaphthylene	20.0	17.0		ug/L		85	54 - 126	
Anthracene	20.0	16.8		ug/L		84	43 - 120	
Benzo[a]anthracene	20.0	17.0		ug/L		85	42 - 133	
Benzo[a]pyrene	20.0	17.2		ug/L		86	32 - 148	
Benzo[b]fluoranthene	20.0	17.3		ug/L		87	42 - 140	
Benzo[g,h,i]perylene	20.0	16.6		ug/L		83	1 - 195	
Benzo[k]fluoranthene	20.0	17.3		ug/L		87	25 - 146	
Chrysene	20.0	17.4		ug/L		87	44 - 140	
Dibenz(a,h)anthracene	20.0	17.5		ug/L		88	1 - 200	
Fluoranthene	20.0	17.6		ug/L		88	43 - 121	
Fluorene	20.0	17.0		ug/L		85	70 - 120	
Indeno[1,2,3-cd]pyrene	20.0	16.9		ug/L		84	1 - 151	
Naphthalene	20.0	13.7		ug/L		69	36 - 120	
Phenanthrene	20.0	17.0		ug/L		85	65 - 120	
Pyrene	20.0	18.1		ug/L		91	70 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	80		28 - 127
2-Fluorobiphenyl (Surr)	82		31 - 120
2-Fluorophenol (Surr)	63		17 - 120
Nitrobenzene-d5 (Surr)	76		27 - 120
Phenol-d6 (Surr)	42		10 - 120
p-Terphenyl-d14 (Surr)	87		45 - 120

**Lab Sample ID: LCSD 570-646557/3-A**

**Matrix: Water**

**Analysis Batch: 651324**

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

**Prep Type: Total/NA**

**Prep Batch: 646557**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	
									RPD	Limit
1-Methylnaphthalene	20.0	13.8		ug/L		69	47 - 120	2	20	
2-Methylnaphthalene	20.0	13.7		ug/L		69	43 - 120	2	20	
Acenaphthene	20.0	16.5		ug/L		83	60 - 132	2	29	
Acenaphthylene	20.0	16.6		ug/L		83	54 - 126	3	45	
Anthracene	20.0	16.5		ug/L		82	43 - 120	2	40	
Benzo[a]anthracene	20.0	16.6		ug/L		83	42 - 133	3	32	
Benzo[a]pyrene	20.0	16.6		ug/L		83	32 - 148	3	43	
Benzo[b]fluoranthene	20.0	16.6		ug/L		83	42 - 140	4	43	
Benzo[g,h,i]perylene	20.0	16.1		ug/L		80	1 - 195	3	61	
Benzo[k]fluoranthene	20.0	16.9		ug/L		85	25 - 146	2	38	
Chrysene	20.0	16.8		ug/L		84	44 - 140	3	53	
Dibenz(a,h)anthracene	20.0	16.7		ug/L		84	1 - 200	5	75	
Fluoranthene	20.0	17.3		ug/L		87	43 - 121	2	40	
Fluorene	20.0	16.7		ug/L		84	70 - 120	2	23	
Indeno[1,2,3-cd]pyrene	20.0	16.5		ug/L		83	1 - 151	2	60	
Naphthalene	20.0	13.7		ug/L		69	36 - 120	0	39	

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: LCSD 570-646557/3-A**

**Matrix: Water**

**Analysis Batch: 651324**

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

**Prep Type: Total/NA**

**Prep Batch: 646557**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	16.5		ug/L		82	65 - 120	3	24
Pyrene	20.0	17.9		ug/L		90	70 - 120	1	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	76		28 - 127
2-Fluorobiphenyl (Surr)	78		31 - 120
2-Fluorophenol (Surr)	57		17 - 120
Nitrobenzene-d5 (Surr)	74		27 - 120
Phenol-d6 (Surr)	37		10 - 120
p-Terphenyl-d14 (Surr)	86		45 - 120

**Lab Sample ID: 380-178571-A-1-A MS**

**Matrix: Water**

**Analysis Batch: 651324**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 646557**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.2	13.9		ug/L		72	36 - 120
2-Methylnaphthalene	<0.19		19.2	13.7		ug/L		71	32 - 124
Acenaphthene	<0.19		19.2	16.6		ug/L		87	47 - 145
Acenaphthylene	<0.19		19.2	16.6		ug/L		86	33 - 145
Anthracene	<0.19		19.2	16.1		ug/L		84	27 - 133
Benzo[a]anthracene	<0.19		19.2	16.2		ug/L		84	33 - 143
Benzo[a]pyrene	<0.19		19.2	16.3		ug/L		85	17 - 163
Benzo[b]fluoranthene	<0.19		19.2	16.0		ug/L		83	24 - 159
Benzo[g,h,i]perylene	<0.19		19.2	15.7		ug/L		82	1 - 219
Benzo[k]fluoranthene	<0.19		19.2	16.4		ug/L		85	11 - 162
Chrysene	<0.19		19.2	16.6		ug/L		86	17 - 168
Dibenz(a,h)anthracene	<0.19		19.2	16.4		ug/L		85	1 - 227
Fluoranthene	<0.19		19.2	16.9		ug/L		88	26 - 137
Fluorene	<0.19		19.2	16.5		ug/L		86	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.2	15.9		ug/L		83	1 - 171
Naphthalene	<0.19		19.2	13.4		ug/L		70	21 - 133
Phenanthrene	<0.19		19.2	16.2		ug/L		84	54 - 120
Pyrene	<0.19		19.2	17.4		ug/L		91	52 - 120

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	81		28 - 127
2-Fluorobiphenyl (Surr)	83		31 - 120
2-Fluorophenol (Surr)	61		17 - 120
Nitrobenzene-d5 (Surr)	77		27 - 120
Phenol-d6 (Surr)	40		10 - 120
p-Terphenyl-d14 (Surr)	88		45 - 120

# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-178571-A-1-B MSD

Matrix: Water

Analysis Batch: 651324

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 646557

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
1-Methylnaphthalene	<0.19		19.5	11.3		ug/L		58	36 - 120	21	30
2-Methylnaphthalene	<0.19		19.5	11.1		ug/L		57	32 - 124	21	30
Acenaphthene	<0.19		19.5	12.9		ug/L		66	47 - 145	26	48
Acenaphthylene	<0.19		19.5	12.9		ug/L		66	33 - 145	25	74
Anthracene	<0.19		19.5	12.8		ug/L		66	27 - 133	23	66
Benzo[a]anthracene	<0.19		19.5	12.8		ug/L		66	33 - 143	24	53
Benzo[a]pyrene	<0.19		19.5	12.7		ug/L		65	17 - 163	25	72
Benzo[b]fluoranthene	<0.19		19.5	12.4		ug/L		64	24 - 159	25	71
Benzo[g,h,i]perylene	<0.19		19.5	12.5		ug/L		64	1 - 219	23	97
Benzo[k]fluoranthene	<0.19		19.5	12.9		ug/L		66	11 - 162	24	63
Chrysene	<0.19		19.5	13.1		ug/L		68	17 - 168	23	87
Dibenz(a,h)anthracene	<0.19		19.5	13.1		ug/L		67	1 - 227	22	126
Fluoranthene	<0.19		19.5	13.0		ug/L		67	26 - 137	27	66
Fluorene	<0.19		19.5	12.8		ug/L		66	59 - 121	25	38
Indeno[1,2,3-cd]pyrene	<0.19		19.5	12.7		ug/L		65	1 - 171	23	99
Naphthalene	<0.19		19.5	10.9		ug/L		56	21 - 133	21	65
Phenanthrene	<0.19		19.5	12.8		ug/L		66	54 - 120	23	39
Pyrene	<0.19		19.5	14.1		ug/L		72	52 - 120	21	49

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	64		28 - 127
2-Fluorobiphenyl (Surr)	65		31 - 120
2-Fluorophenol (Surr)	49		17 - 120
Nitrobenzene-d5 (Surr)	62		27 - 120
Phenol-d6 (Surr)	32		10 - 120
p-Terphenyl-d14 (Surr)	72		45 - 120

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

Lab Sample ID: MB 570-649292/11

Matrix: Water

Analysis Batch: 649292

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			10/31/25 14:30	1

  

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	98		38 - 134		10/31/25 14:30	1

Lab Sample ID: LCS 570-649292/1009

Matrix: Water

Analysis Batch: 649292

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	395		ug/L		99	78 - 120

# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: LCS 570-649292/1009**  
**Matrix: Water**  
**Analysis Batch: 649292**

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

	LCS	LCS	
<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
4-Bromofluorobenzene (Surr)	89		38 - 134

**Lab Sample ID: LCSD 570-649292/10**  
**Matrix: Water**  
**Analysis Batch: 649292**

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

<u>Analyte</u>		Spike <u>Added</u>	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
			<u>Result</u>	<u>Qualifier</u>				Limits		
Gasoline Range Organics (C4-C13)		400	390		ug/L		98	78 - 120	1	10

  

	LCSD	LCSD	
<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
4-Bromofluorobenzene (Surr)	96		38 - 134

**Lab Sample ID: MRL 570-649292/1004**  
**Matrix: Water**  
**Analysis Batch: 649292**

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

<u>Analyte</u>		Spike <u>Added</u>	MRL	MRL	Unit	D	%Rec	%Rec	
			<u>Result</u>	<u>Qualifier</u>				Limits	
Gasoline Range Organics (C4-C13)		10.0	10.4		ug/L		104	50 - 150	

  

	MRL	MRL	
<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
4-Bromofluorobenzene (Surr)	97		38 - 134

**Lab Sample ID: 380-179754-B-1 MS**  
**Matrix: Water**  
**Analysis Batch: 649292**

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

<u>Analyte</u>	Sample <u>Result</u>	Sample <u>Qualifier</u>	Spike <u>Added</u>	MS	MS	Unit	D	%Rec	%Rec	
				<u>Result</u>	<u>Qualifier</u>				Limits	
Gasoline Range Organics (C4-C13)	<10		400	438		ug/L		109	68 - 122	

  

	MS	MS	
<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
4-Bromofluorobenzene (Surr)	99		38 - 134

**Lab Sample ID: 380-179754-B-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 649292**

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

<u>Analyte</u>	Sample <u>Result</u>	Sample <u>Qualifier</u>	Spike <u>Added</u>	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
				<u>Result</u>	<u>Qualifier</u>				Limits		
Gasoline Range Organics (C4-C13)	<10		400	426		ug/L		107	68 - 122	3	18

  

	MSD	MSD	
<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
4-Bromofluorobenzene (Surr)	97		38 - 134

# QC Sample Results

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: MB 570-646316/1-A**  
**Matrix: Water**  
**Analysis Batch: 651269**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 646316**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (C10-C24)	<25		25	ug/L		10/26/25 09:36	11/05/25 01:15	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		10/26/25 09:36	11/05/25 01:15	1
C8-C18	<25		25	ug/L		10/26/25 09:36	11/05/25 01:15	1
Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac		
%Recovery	Qualifier							
n-Octacosane (Surr)	115		60 - 130	10/26/25 09:36	11/05/25 01:15	1		

**Lab Sample ID: LCS 570-646316/2-A**  
**Matrix: Water**  
**Analysis Batch: 651269**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 646316**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	1600	1990		ug/L		124	56 - 127
Surrogate	LCS	LCS	Limits	%Recovery	Qualifier		
n-Octacosane (Surr)	124					60 - 130	

**Lab Sample ID: LCSD 570-646316/3-A**  
**Matrix: Water**  
**Analysis Batch: 651269**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 646316**

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
		Result	Qualifier						
C10-C28	1600	1870		ug/L		117	56 - 127	6	23
Surrogate	LCSD	LCSD	Limits	%Recovery	Qualifier				
n-Octacosane (Surr)	120					60 - 130			

**Lab Sample ID: MRL 570-646316/4-A**  
**Matrix: Water**  
**Analysis Batch: 651269**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 646316**

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	0.0200	0.0246	J	mg/L		123	50 - 150
Surrogate	MRL	MRL	Limits	%Recovery	Qualifier		
n-Octacosane (Surr)	97					60 - 130	

**Lab Sample ID: 380-178571-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 651269**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 646316**

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
C10-C28	<25		1630	1860		ug/L		114	70 - 130
Surrogate	MS	MS	Limits	%Recovery	Qualifier				
n-Octacosane (Surr)	116					60 - 130			

# QC Sample Results

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

Job ID: 380-178569-1  
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

**Lab Sample ID: 380-178571-B-1-B MSD**

**Matrix: Water**

**Analysis Batch: 651269**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 646316**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
C10-C28	<25		1650	1580		ug/L		96	70 - 130	16	20	
Surrogate	MSD %Recovery	MSD Qualifier	Limits									
<i>n-Octacosane (Surr)</i>	99		60 - 130									

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# QC Association Summary

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

Job ID: 380-178569-1  
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

## GC/MS Semi VOA

### Prep Batch: 182502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178569-1	Ka'amilo Wells Pump 1	Total/NA	Water	525.2	
380-178569-3	Ka'amilo Wells Pump 2	Total/NA	Water	525.2	
MB 380-182502/20-A	Method Blank	Total/NA	Water	525.2	
LCS 380-182502/22-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-182502/21-A	Lab Control Sample	Total/NA	Water	525.2	
380-179066-N-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-178570-H-1-A DU	Duplicate	Total/NA	Water	525.2	

### Analysis Batch: 182759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178569-1	Ka'amilo Wells Pump 1	Total/NA	Water	525.2	182502
380-178569-3	Ka'amilo Wells Pump 2	Total/NA	Water	525.2	182502
MB 380-182502/20-A	Method Blank	Total/NA	Water	525.2	182502
LCS 380-182502/22-A	Lab Control Sample	Total/NA	Water	525.2	182502
MRL 380-182502/21-A	Lab Control Sample	Total/NA	Water	525.2	182502
380-179066-N-1-A MS	Matrix Spike	Total/NA	Water	525.2	182502
380-178570-H-1-A DU	Duplicate	Total/NA	Water	525.2	182502

### Prep Batch: 646557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178569-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1	
380-178569-3	Ka'amilo Wells Pump 2	Total/NA	Water	625.1	
MB 570-646557/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-646557/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-646557/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-178571-A-1-A MS	Matrix Spike	Total/NA	Water	625.1	
380-178571-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

### Analysis Batch: 651324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178569-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1 SIM	646557
380-178569-3	Ka'amilo Wells Pump 2	Total/NA	Water	625.1 SIM	646557
MB 570-646557/1-A	Method Blank	Total/NA	Water	625.1 SIM	646557
LCS 570-646557/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	646557
LCSD 570-646557/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	646557
380-178571-A-1-A MS	Matrix Spike	Total/NA	Water	625.1 SIM	646557
380-178571-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	646557

### Analysis Batch: 652536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178569-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1	646557
380-178569-3	Ka'amilo Wells Pump 2	Total/NA	Water	625.1	646557
MB 570-646557/1-A	Method Blank	Total/NA	Water	625.1	646557

## GC VOA

### Analysis Batch: 649292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178569-1	Ka'amilo Wells Pump 1	Total/NA	Water	8015B GRO LL	
380-178569-2	TB: Ka'amilo Wells Pump 1	Total/NA	Water	8015B GRO LL	
380-178569-3	Ka'amilo Wells Pump 2	Total/NA	Water	8015B GRO LL	

# QC Association Summary

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

Job ID: 380-178569-1  
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

## GC VOA (Continued)

### Analysis Batch: 649292 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178569-4	TB: Ka'amilo Wells Pump 2	Total/NA	Water	8015B GRO LL	
MB 570-649292/11	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-649292/1009	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-649292/10	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-649292/1004	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-179754-B-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-179754-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

## GC Semi VOA

### Prep Batch: 646316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178569-1	Ka'amilo Wells Pump 1	Total/NA	Water	3510C	
380-178569-3	Ka'amilo Wells Pump 2	Total/NA	Water	3510C	
MB 570-646316/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-646316/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-646316/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-646316/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-178571-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-178571-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

### Analysis Batch: 651269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178569-1	Ka'amilo Wells Pump 1	Total/NA	Water	8015B	646316
380-178569-3	Ka'amilo Wells Pump 2	Total/NA	Water	8015B	646316
MB 570-646316/1-A	Method Blank	Total/NA	Water	8015B	646316
LCS 570-646316/2-A	Lab Control Sample	Total/NA	Water	8015B	646316
LCSD 570-646316/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	646316
MRL 570-646316/4-A	Lab Control Sample	Total/NA	Water	8015B	646316
380-178571-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	646316
380-178571-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	646316

# Lab Chronicle

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

## Client Sample ID: Ka'amilo Wells Pump 1

**Lab Sample ID: 380-178569-1**

Date Collected: 10/20/25 12:03

Matrix: Water

Date Received: 10/22/25 10:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			182502	OTM3	EA POM	10/27/25 07:42
Total/NA	Analysis	525.2		1	182759	Q8LA	EA POM	10/28/25 14:38
Total/NA	Prep	625.1			646557	H1SH	EET CAL 4	10/27/25 08:06
Total/NA	Analysis	625.1		1	652536	J7WE	EET CAL 4	11/07/25 00:23
Total/NA	Prep	625.1			646557	H1SH	EET CAL 4	10/27/25 08:06
Total/NA	Analysis	625.1 SIM		1	651324	PQS1	EET CAL 4	11/05/25 09:01
Total/NA	Analysis	8015B GRO LL		1	649292	A9VE	EET CAL 4	10/31/25 16:35
Total/NA	Prep	3510C			646316	TVD6	EET CAL 4	10/26/25 09:36
Total/NA	Analysis	8015B		1	651269	NR	EET CAL 4	11/05/25 04:01

## Client Sample ID: TB: Ka'amilo Wells Pump 1

**Lab Sample ID: 380-178569-2**

Date Collected: 10/20/25 12:03

Matrix: Water

Date Received: 10/22/25 10:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	649292	A9VE	EET CAL 4	10/31/25 15:06

## Client Sample ID: Ka'amilo Wells Pump 2

**Lab Sample ID: 380-178569-3**

Date Collected: 10/20/25 12:46

Matrix: Water

Date Received: 10/22/25 10:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			182502	OTM3	EA POM	10/27/25 07:42
Total/NA	Analysis	525.2		1	182759	Q8LA	EA POM	10/28/25 14:58
Total/NA	Prep	625.1			646557	H1SH	EET CAL 4	10/27/25 08:06
Total/NA	Analysis	625.1		1	652536	J7WE	EET CAL 4	11/07/25 00:47
Total/NA	Prep	625.1			646557	H1SH	EET CAL 4	10/27/25 08:06
Total/NA	Analysis	625.1 SIM		1	651324	PQS1	EET CAL 4	11/05/25 09:24
Total/NA	Analysis	8015B GRO LL		1	649292	A9VE	EET CAL 4	10/31/25 16:57
Total/NA	Prep	3510C			646316	TVD6	EET CAL 4	10/26/25 09:36
Total/NA	Analysis	8015B		1	651269	NR	EET CAL 4	11/05/25 04:21

## Client Sample ID: TB: Ka'amilo Wells Pump 2

**Lab Sample ID: 380-178569-4**

Date Collected: 10/20/25 12:46

Matrix: Water

Date Received: 10/22/25 10:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	649292	A9VE	EET CAL 4	10/31/25 15:29

**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: 380-178569-1  
 SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

## 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	01-31-26

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

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

## Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-15-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25

# Accreditation/Certification Summary

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

## 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
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-26

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# Method Summary

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

Job ID: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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: 380-178569-1  
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-178569-1	Ka'amilo Wells Pump 1	Water	10/20/25 12:03	10/22/25 10:08	Hawaii
380-178569-2	TB: Ka'amilo Wells Pump 1	Water	10/20/25 12:03	10/22/25 10:08	Hawaii
380-178569-3	Ka'amilo Wells Pump 2	Water	10/20/25 12:46	10/22/25 10:08	Hawaii
380-178569-4	TB: Ka'amilo Wells Pump 2	Water	10/20/25 12:46	10/22/25 10:08	Hawaii

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# Chain of Custody Record

<b>Client Information</b>		Sampler: bailey		Lab PM: Arada, Rachelle		Carrier Tracking No(s): 380-28005-2757 1	
Client Contact: Mr Kirk Iwamoto		Phone: +1 808 748 5840		E-Mail: Rachelle.Arada@et.eurofins.com		State of Origin:	
Company: City & County of Honolulu		PWSID:		Analysis Requested		COC No: 380-28005-2757 1	
Address: 630 South Beretania Street Chemistry Lab		Due Date Requested:		53 - All Analytes		Page: 1 of 1	
City: Honolulu		TAT Requested (days):		525.2_PREC - (MOD) 525plus Plus TICs		Job #:	
State, Zip: HI, 96843		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		525.1_GRO_LL (MOD) GRO		Preservation Codes: R - NaThioSO4 RA - NaThioHCl Q - NaZSO3 QA - NaZSO3HCl Y - Trizma I - NH4 Acetate	
Phone: 808-748-5840 (Tel)		PO #: C20525101 exp 05312023		525.1_GRO_LL_C9 - HNL Ranges C10-C24/C24-C38/C8-C18		Other	
Email: kiwamoto@hbws.org		WO #:		525.1_025.1_SIM		Total Number of Containers	
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill		Project #: 38001111		Perform MS/MSD (Yes or No)		Special Instructions/Note:	
Site: Hawaii		SSON#:		Field Filtered Sample (Yes or No)		380 178569 COC	

  

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Weather, Seawater, Atmospheric, Other)	Preservation Code	R	RA	Q	QA	Y	Special Instructions/Note
Ka'amilo Wells Pump 1	20-Oct-2025	1203	G	Water		X					
Ka'amilo Wells Pump 1 (Matrix Spike)				Water							
Ka'amilo Wells Pump 1 (Matrix Spike Duplicate)				Water							
TB: Ka'amilo Wells Pump 1	20-Oct-2025	1203		Water							
Ka'amilo Wells Pump 2	20-Oct-2025	1246	G	Water							
Ka'amilo Wells Pump 2 (Matrix Spike)				Water							
Ka'amilo Wells Pump 2 (Matrix Spike Duplicate)				Water							
TB: Ka'amilo Wells Pump 2	20-Oct-2025	1246		Water							

  

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 21 Oct 2025 1400 Company: HBWS  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  Δ Yes  Δ No  
 Cooler Temperature(s) °C and Other Remarks: 60FA / 1.5 1.5 5.7 5.7  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Special Instructions/QC Requirements: 3809/2810/3820  
 Method of Shipment: 3853616372/5153/3794  
 Date/Time: 10/22/25 1008 Company: HBWS  
 Date/Time: 3.3 3.3 Company: \_\_\_\_\_  
 Date/Time: 1.9 - 1.9 Company: \_\_\_\_\_



**Eurofins Eaton Analytical Pomona**

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

**Chain of Custody Record**



eurofins

Env

Loc: 380  
**178569**

<b>Client Information (Sub Contract Lab)</b>		Sampler: N/A		Lab PM: Lopez, Maria		Carrier Tracking No(s): N/A		COC No: 380-268181.1											
Client Contact: Shipping/Receiving		Phone: N/A		E-Mail: Maria.Lopez@et.eurofins.com		State of Origin: Hawaii		Page: Page 1 of 1											
Company: Eurofins Environment Testing Southwest				Accreditations Required (See note): State - Hawaii				Job #: 380-178569-1											
Address: 2841 Dow Avenue, Suite 100,		Due Date Requested: 11/4/2025		<b>Analysis Requested</b>						Preservation Codes:									
City: Tustin		TAT Requested (days): N/A																	
State, Zip: CA, 92780		PO #: N/A		Field Filled Sample (Yes or No)		Perform MS/MSD (Yes or No)		8016B_DRO_LL_CS0510C_LLHIL Ranges: C10-C24/C24-C36/C36-C48		8016B_GRO_LL06030C(MOD) GRO		825.1_SIN#25_Prep(MOD) Extended PAH List		825.1626_Prep(MOD) Tentatively Identified Compounds (Hold)		Total Number of Containers		Other: N/A	
Phone: 714-895-5494(Tel)		WO #: N/A																	
Email: N/A		Project #: 38001111		Project Name: RED-HILL		SSOW#: N/A		Site: Honolulu BWS Sites											
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>		<b>Sample Time</b>		<b>Sample Type (C=comp, G=grab)</b>		<b>Matrix (Water, Solid, Organosol, BT=Tissue, AMAs)</b>		<b>Preservation Code:</b>		<b>Special Instructions/Note:</b>							
Ka'amilo Wells Pump 1 (380-178569-1)		10/20/25		12:03 Hawaiian		G Water		Water		X X X X		7 MRLs are needed. Confirm any hits >RL.							
TB: Ka'amilo Wells Pump 1 (380-178569-2)		10/20/25		12:03 Hawaiian		G Water		Water		X		2 MRLs are needed.							
Ka'amilo Wells Pump 2 (380-178569-3)		10/20/25		12:46 Hawaiian		G Water		Water		X X X X		3 MRLs are needed. Confirm any hits >RL.							
TB: Ka'amilo Wells Pump 2 (380-178569-4)		10/20/25		12:46 Hawaiian		G Water		Water		X		2 MRLs are needed.							



380-178569 Chain of Custody

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

<b>Possible Hazard Identification</b>		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>	
Unconfirmed		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2	
		Special Instructions/QC Requirements:	

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: 10/23/25 11:30		Company: <i>[Signature]</i>		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Received by:	
Relinquished by:		Date/Time:		Company:		Received by:	

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.7/1.9 IR-2	
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## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-178569-1

SDG Number: Weekly: Ka'amilo Wells Pump 1/Pump 2

**Login Number: 178569**

**List Number: 1**

**Creator: Ngo, Theodore**

**List Source: Eurofins Eaton Analytical Pomona**

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	



## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-178569-1

SDG Number: Weekly: Ka'amilo Wells Pump 1/Pump 2

**Login Number: 178569**

**List Number: 2**

**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**

**List Creation: 10/23/25 01:40 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	1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	