

# ANALYTICAL REPORT

## PREPARED FOR

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

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## JOB DESCRIPTION

RED-HILL  
Weekly: Ka'amilo Wells Pump 1  
RUSH Weekly Red Hill

## JOB NUMBER

380-190099-1

# Eurofins 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 Drinking Water and Wastewater West, 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



Authorized for release by  
Maria Lopez, Project Manager  
[Maria.Lopez@et.eurofinsus.com](mailto:Maria.Lopez@et.eurofinsus.com)  
(626)386-1100

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# Definitions/Glossary

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

### 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 VOA

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

### GC 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)

# Definitions/Glossary

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

## Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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

# Case Narrative

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

Job ID: 380-190099-1

**Job ID: 380-190099-1**

**Eurofins Pomona**

## Job Narrative 380-190099-1

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 12/31/2025 9:57 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.3°C.

### GC/MS Semi VOA

Method 625.1: The surrogate recovery for the blank associated with preparation batch 570-678015 and analytical batch 570-681700 was outside the upper control limits.

Method 625.1\_SIM: The spiking solution was inadvertently mis-spiked during the extraction process for the laboratory control sample duplicate (LCSD) associated with 570-678015; therefore, the relative percent difference between LCS/LCSD is unavailable. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate precision.

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

### Gasoline Range Organics

Method 8015B\_GRO\_LL: The matrix spike duplicate (MSD) recovery for analytical batch 570-678421 was outside control limits for Gasoline Range Organics (C4-C13). See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries were within acceptance limits.

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

### Diesel Range Organics

Method 8015B\_DRO\_LL\_CS: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: Ka'amilo Wells Pump 1 (380-190099-1). Percent recoveries are based on the amount spiked.

Method: 8015B\_DRO\_LL\_CS

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

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# Detection Summary

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

## Lab Sample ID: 380-190099-1

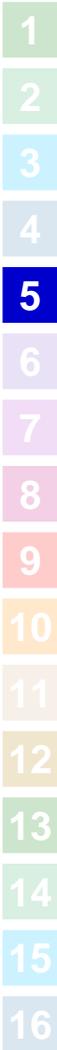
Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.070		0.0097	ug/L	1		525.2	Total/NA
Heptachlor epoxide (isomer B)	0.012		0.0097	ug/L	1		525.2	Total/NA

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

## Lab Sample ID: 380-190099-2

No Detections.

This Detection Summary does not include radiochemical test results.



# Client Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: 380-190099-1**

Date Collected: 12/29/25 11:57

Matrix: Water

Date Received: 12/31/25 09:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
2,4'-DDD	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
2,4'-DDE	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
2,4'-DDT	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
2-Methylnaphthalene	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
4,4'-DDD	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
4,4'-DDE	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
4,4'-DDT	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Acenaphthene	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Acenaphthylene	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Acetochlor	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Alachlor	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
alpha-BHC	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
alpha-Chlordane	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Anthracene	<0.019		0.019	ug/L		01/05/26 07:49	01/06/26 11:13	1
Atrazine	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Benz(a)anthracene	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Benzo[a]pyrene	<0.019		0.019	ug/L		01/05/26 07:49	01/06/26 11:13	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		01/05/26 07:49	01/06/26 11:13	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		01/05/26 07:49	01/06/26 11:13	1
beta-BHC	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		01/05/26 07:49	01/06/26 11:13	1
Bromacil	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Butachlor	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Butylbenzylphthalate	<0.48		0.48	ug/L		01/05/26 07:49	01/06/26 11:13	1
Chlorobenzilate	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Chloroneb	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Chlorpyrifos	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Chrysene	<0.019		0.019	ug/L		01/05/26 07:49	01/06/26 11:13	1
delta-BHC	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		01/05/26 07:49	01/06/26 11:13	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
<b>Dieldrin</b>	<b>0.070</b>		0.0097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Diethylphthalate	<0.48		0.48	ug/L		01/05/26 07:49	01/06/26 11:13	1
Dimethylphthalate	<0.48		0.48	ug/L		01/05/26 07:49	01/06/26 11:13	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		01/05/26 07:49	01/06/26 11:13	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Endosulfan sulfate	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Endrin	<0.0097		0.0097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Endrin aldehyde	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
EPTC	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Fluoranthene	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1

# Client Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: 380-190099-1**

Date Collected: 12/29/25 11:57

Matrix: Water

Date Received: 12/31/25 09:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
gamma-Chlordane	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Heptachlor	<0.0097		0.0097	ug/L		01/05/26 07:49	01/06/26 11:13	1
<b>Heptachlor epoxide (isomer B)</b>	<b>0.012</b>		0.0097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Hexachlorobenzene	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Isophorone	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Lindane	<0.0097		0.0097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Malathion	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Methoxychlor	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Metolachlor	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Molinate	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Naphthalene	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Parathion	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Phenanthrene	<0.039		0.039	ug/L		01/05/26 07:49	01/06/26 11:13	1
Propachlor	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Pyrene	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Simazine	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Terbacil	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Terbutylazine	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Thiobencarb	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		01/05/26 07:49	01/06/26 11:13	1
trans-Nonachlor	<0.048		0.048	ug/L		01/05/26 07:49	01/06/26 11:13	1
Trifluralin	<0.097		0.097	ug/L		01/05/26 07:49	01/06/26 11:13	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1.3	T J	ug/L		8.19	N/A	01/05/26 07:49	01/06/26 11:13	1
Unknown	1.7	T J	ug/L		9.88	N/A	01/05/26 07:49	01/06/26 11:13	1
Unknown	1.6	T J	ug/L		10.83	N/A	01/05/26 07:49	01/06/26 11:13	1
Unknown	0.77	T J	ug/L		11.82	N/A	01/05/26 07:49	01/06/26 11:13	1
Unknown	0.50	T J	ug/L		12.82	N/A	01/05/26 07:49	01/06/26 11:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	01/05/26 07:49	01/06/26 11:13	1
Perylene-d12	84		70 - 130	01/05/26 07:49	01/06/26 11:13	1
Triphenylphosphate	102		70 - 130	01/05/26 07:49	01/06/26 11:13	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	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
2-Methylnaphthalene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Acenaphthene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Acenaphthylene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Anthracene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Benzo[a]anthracene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Benzo[a]pyrene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Benzo[b]fluoranthene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Benzo[g,h,i]perylene	<0.19	*1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1

Eurofins Pomona

# Client Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: 380-190099-1**

Date Collected: 12/29/25 11:57

Matrix: Water

Date Received: 12/31/25 09:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Chrysene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Dibenz(a,h)anthracene	<0.19	*1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Fluoranthene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Fluorene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Indeno[1,2,3-cd]pyrene	<0.19	*1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Naphthalene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Phenanthrene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Pyrene	<0.19	*- *1	0.19	ug/L		01/02/26 12:55	01/13/26 14:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	86		28 - 127			01/02/26 12:55	01/13/26 14:31	1
2-Fluorobiphenyl (Surr)	84		31 - 120			01/02/26 12:55	01/13/26 14:31	1
2-Fluorophenol (Surr)	55		17 - 120			01/02/26 12:55	01/13/26 14:31	1
Nitrobenzene-d5 (Surr)	90		27 - 120			01/02/26 12:55	01/13/26 14:31	1
Phenol-d6 (Surr)	34		10 - 120			01/02/26 12:55	01/13/26 14:31	1
p-Terphenyl-d14 (Surr)	90		45 - 120			01/02/26 12:55	01/13/26 14:31	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
Adenosine, N-phenylacetic acid	4.7	T J N	ug/L		4.83	96760-57-5	01/02/26 12:55	01/13/26 18:16	1
.alpha.-d-Ribopyranoside, methyl	58	T J N	ug/L		5.01	6207-03-0	01/02/26 12:55	01/13/26 18:16	1
1,6-Anhydro-.beta.-D-glucopyranose (levoglucosan)	4.7	T J N	ug/L		6.55	498-07-7	01/02/26 12:55	01/13/26 18:16	1
Methyl .beta.-d-galactopyranoside	5.8	T J N	ug/L		7.11	1000126-04-6	01/02/26 12:55	01/13/26 18:16	1
n-Hexadecanoic acid	12	T J N	ug/L		9.19	57-10-3	01/02/26 12:55	01/13/26 18:16	1
Squalene	36	T J N	ug/L		13.56	7683-64-9	01/02/26 12:55	01/13/26 18:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	77		33 - 139				01/02/26 12:55	01/13/26 18:16	1
2-Fluorobiphenyl (Surr)	84		33 - 126				01/02/26 12:55	01/13/26 18:16	1
2-Fluorophenol (Surr)	57		12 - 120				01/02/26 12:55	01/13/26 18:16	1
Nitrobenzene-d5 (Surr)	102		36 - 120				01/02/26 12:55	01/13/26 18:16	1
Phenol-d6 (Surr)	35		10 - 120				01/02/26 12:55	01/13/26 18:16	1
p-Terphenyl-d14 (Surr)	93		47 - 131				01/02/26 12:55	01/13/26 18:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			01/04/26 23:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		38 - 134				01/04/26 23:02	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		01/04/26 09:33	01/08/26 01:02	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		01/04/26 09:33	01/08/26 01:02	1
C8-C18	<26		26	ug/L		01/04/26 09:33	01/08/26 01:02	1

# Client Sample Results

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

Job ID: 380-190099-1  
 SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: 380-190099-1**

Date Collected: 12/29/25 11:57

Matrix: Water

Date Received: 12/31/25 09:57

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	110		60 - 130	01/04/26 09:33	01/08/26 01:02	1

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

**Lab Sample ID: 380-190099-2**

Date Collected: 12/29/25 11:57

Matrix: Water

Date Received: 12/31/25 09:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L	-		01/05/26 03:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		38 - 134		01/05/26 03:05	1

# Action Limit Summary

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: 380-190099-1**

## 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	<0.048		ug/L	2	0.048	525.2	Total/NA
Atrazine	<0.048		ug/L	3	0.048	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	0.012		ug/L	0.2	0.0097	525.2	Total/NA
Hexachlorobenzene	<0.048		ug/L	1	0.048	525.2	Total/NA
Hexachlorocyclopentadiene	<0.048		ug/L	50	0.048	525.2	Total/NA
Lindane	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.048		ug/L	40	0.048	525.2	Total/NA
Simazine	<0.048		ug/L	4	0.048	525.2	Total/NA
Benzo[a]pyrene	<0.19	*- *1	ug/L	0.2	0.19	625.1 SIM	Total/NA

# Surrogate Summary

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

## 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)
380-190099-1	Ka'amilo Wells Pump 1	96	84	102
380-190099-1 MS	Ka'amilo Wells Pump 1	97	87	108
380-190102-I-1-A DU	Duplicate	94	80	107
LCS 380-195755/23-A	Lab Control Sample	96	87	110
MB 380-195755/21-A	Method Blank	95	83	108
MRL 380-195755/22-A	Lab Control Sample	96	77	106

**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)
380-190099-1	Ka'amilo Wells Pump 1	77	84	57	102	35	93
MB 570-678015/1-A	Method Blank	90	102	71	125 S1+	46	112

**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)
380-190087-A-1-A MS	Matrix Spike	92	92	70	80	44	101
380-190087-A-1-B MSD	Matrix Spike Duplicate	89	85	66	78	42	96
380-190099-1	Ka'amilo Wells Pump 1	86	84	55	90	34	90
LCS 570-678015/2-A	Lab Control Sample	99	94	75	85	49	107
LCSD 570-678015/3-A	Lab Control Sample Dup	16 S1-	16 S1-	11 S1-	16 S1-	7 S1-	19 S1-
MB 570-678015/1-A	Method Blank	102	95	72	112	45	113

**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: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

## 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)
380-190087-C-1 MS	Matrix Spike	102
380-190087-C-1 MSD	Matrix Spike Duplicate	107
380-190099-1	Ka'amilo Wells Pump 1	102
380-190099-2	TB: Ka'amilo Wells Pump 1	104
LCS 570-678421/1011	Lab Control Sample	91
LCSD 570-678421/12	Lab Control Sample Dup	94
MB 570-678421/13	Method Blank	98
MRL 570-678421/14	Lab Control Sample	94

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-190087-B-1-B MS	Matrix Spike	107
380-190087-B-1-C MSD	Matrix Spike Duplicate	114
380-190099-1	Ka'amilo Wells Pump 1	110
LCS 570-678355/2-A	Lab Control Sample	97
LCSD 570-678355/3-A	Lab Control Sample Dup	97
MB 570-678355/1-A	Method Blank	104
MRL 570-678355/4-A	Lab Control Sample	107

#### Surrogate Legend

OTCSN = n-Octacosane (Surr)

# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: MB 380-195755/21-A**  
**Matrix: Water**  
**Analysis Batch: 195892**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195755**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
2,4'-DDD	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
2,4'-DDE	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
2,4'-DDT	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
2-Methylnaphthalene	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
4,4'-DDD	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
4,4'-DDE	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
4,4'-DDT	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Acenaphthene	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Acenaphthylene	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Acetochlor	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Alachlor	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
alpha-BHC	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
alpha-Chlordane	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Anthracene	<0.020		0.020	ug/L		01/05/26 07:49	01/06/26 08:32	1
Atrazine	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Benz(a)anthracene	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Benzo[a]pyrene	<0.020		0.020	ug/L		01/05/26 07:49	01/06/26 08:32	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		01/05/26 07:49	01/06/26 08:32	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		01/05/26 07:49	01/06/26 08:32	1
beta-BHC	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		01/05/26 07:49	01/06/26 08:32	1
Bromacil	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Butachlor	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Butylbenzylphthalate	<0.50		0.50	ug/L		01/05/26 07:49	01/06/26 08:32	1
Chlorobenzilate	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Chloroneb	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Chlorpyrifos	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Chrysene	<0.020		0.020	ug/L		01/05/26 07:49	01/06/26 08:32	1
delta-BHC	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		01/05/26 07:49	01/06/26 08:32	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Dieldrin	<0.0099		0.0099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Diethylphthalate	<0.50		0.50	ug/L		01/05/26 07:49	01/06/26 08:32	1
Dimethylphthalate	<0.50		0.50	ug/L		01/05/26 07:49	01/06/26 08:32	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		01/05/26 07:49	01/06/26 08:32	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Endosulfan sulfate	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Endrin	<0.0099		0.0099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Endrin aldehyde	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
EPTC	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1

# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: MB 380-195755/21-A**  
**Matrix: Water**  
**Analysis Batch: 195892**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 195755**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Fluoranthene	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Fluorene	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
gamma-Chlordane	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Heptachlor	<0.0099		0.0099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Hexachlorobenzene	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Isophorone	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Lindane	<0.0099		0.0099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Malathion	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Methoxychlor	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Metolachlor	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Molinate	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Naphthalene	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Parathion	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Phenanthrene	<0.040		0.040	ug/L		01/05/26 07:49	01/06/26 08:32	1
Propachlor	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Pyrene	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Simazine	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Terbacil	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Terbutylazine	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Thiobencarb	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		01/05/26 07:49	01/06/26 08:32	1
trans-Nonachlor	<0.050		0.050	ug/L		01/05/26 07:49	01/06/26 08:32	1
Trifluralin	<0.099		0.099	ug/L		01/05/26 07:49	01/06/26 08:32	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Undecane	2.53	T J N	ug/L		3.23	1120-21-4	01/05/26 07:49	01/06/26 08:32	1
Ethyl 3-acetoxybutyrate	0.542	T J N	ug/L		3.26	27846-49-7	01/05/26 07:49	01/06/26 08:32	1
Cyclopentasiloxane, decamethyl-	0.535	T J N	ug/L		3.37	541-02-6	01/05/26 07:49	01/06/26 08:32	1
Unknown	0.739	T J	ug/L		5.39	N/A	01/05/26 07:49	01/06/26 08:32	1
Hexadecanamide	0.751	T J N	ug/L		7.19	629-54-9	01/05/26 07:49	01/06/26 08:32	1
9-Octadecenamide, (Z)-	4.52	T J N	ug/L		8.08	301-02-0	01/05/26 07:49	01/06/26 08:32	1
Octadecanamide	0.679	T J N	ug/L		8.19	124-26-5	01/05/26 07:49	01/06/26 08:32	1
Unknown	0.591	T J	ug/L		14.41	N/A	01/05/26 07:49	01/06/26 08:32	1
Unknown	1.13	T J	ug/L		15.25	N/A	01/05/26 07:49	01/06/26 08:32	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Nitro-m-xylene	95		70 - 130	01/05/26 07:49	01/06/26 08:32	1
Perylene-d12	83		70 - 130	01/05/26 07:49	01/06/26 08:32	1
Triphenylphosphate	108		70 - 130	01/05/26 07:49	01/06/26 08:32	1

# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: LCS 380-195755/23-A**  
**Matrix: Water**  
**Analysis Batch: 195892**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 195755**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.99	1.88		ug/L		95	70 - 130
2,4'-DDD	1.99	2.01		ug/L		101	70 - 130
2,4'-DDE	1.99	2.20		ug/L		111	70 - 130
2,4'-DDT	1.99	1.98		ug/L		100	70 - 130
2,4-Dinitrotoluene	1.99	1.82		ug/L		92	70 - 130
2,6-Dinitrotoluene	1.99	1.89		ug/L		95	70 - 130
2-Methylnaphthalene	1.99	1.91		ug/L		96	70 - 130
4,4'-DDD	1.99	2.07		ug/L		104	70 - 130
4,4'-DDE	1.99	2.03		ug/L		102	70 - 130
4,4'-DDT	1.99	2.06		ug/L		104	70 - 130
Acenaphthene	1.99	1.87		ug/L		94	70 - 130
Acenaphthylene	1.99	1.94		ug/L		97	70 - 130
Acetochlor	1.99	2.14		ug/L		108	70 - 130
Alachlor	1.99	2.25		ug/L		113	70 - 130
alpha-BHC	1.99	1.96		ug/L		99	70 - 130
alpha-Chlordane	1.99	1.97		ug/L		99	70 - 130
Anthracene	1.99	1.82		ug/L		91	70 - 130
Atrazine	1.99	2.04		ug/L		103	70 - 130
Benz(a)anthracene	1.99	2.04		ug/L		103	70 - 130
Benzo[a]pyrene	1.99	2.06		ug/L		104	70 - 130
Benzo[b]fluoranthene	1.99	2.03		ug/L		102	70 - 130
Benzo[g,h,i]perylene	1.99	1.92		ug/L		97	70 - 130
Benzo[k]fluoranthene	1.99	1.93		ug/L		97	70 - 130
beta-BHC	1.99	1.90		ug/L		95	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	2.16		ug/L		108	70 - 130
Bromacil	1.99	1.86		ug/L		94	70 - 130
Butachlor	1.99	2.19		ug/L		110	70 - 130
Butylbenzylphthalate	1.99	2.38		ug/L		120	70 - 130
Chlorobenzilate	1.99	2.29		ug/L		115	70 - 130
Chloroneb	1.99	1.91		ug/L		96	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	1.99		ug/L		100	70 - 130
Chlorpyrifos	1.99	2.09		ug/L		105	70 - 130
Chrysene	1.99	1.88		ug/L		95	70 - 130
delta-BHC	1.99	1.94		ug/L		98	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.42		ug/L		122	70 - 130
Dibenz(a,h)anthracene	1.99	1.98		ug/L		100	70 - 130
Diclorvos (DDVP)	1.99	1.94		ug/L		98	70 - 130
Dieldrin	1.99	2.07		ug/L		104	70 - 130
Diethylphthalate	1.99	2.22		ug/L		112	70 - 130
Dimethylphthalate	1.99	2.04		ug/L		103	70 - 130
Di-n-butyl phthalate	3.98	4.06		ug/L		102	70 - 130
Di-n-octyl phthalate	1.99	2.16		ug/L		109	70 - 130
Endosulfan I (Alpha)	1.99	1.81		ug/L		91	70 - 130
Endosulfan II (Beta)	1.99	1.97		ug/L		99	70 - 130
Endosulfan sulfate	1.99	1.93		ug/L		97	70 - 130
Endrin	1.99	2.47		ug/L		124	70 - 130
Endrin aldehyde	1.99	1.95		ug/L		98	60 - 130
EPTC	1.99	2.24		ug/L		112	70 - 130

# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

Lab Sample ID: LCS 380-195755/23-A

Matrix: Water

Analysis Batch: 195892

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195755

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
Fluoranthene	1.99	2.04		ug/L		102	70 - 130
Fluorene	1.99	1.96		ug/L		99	70 - 130
gamma-Chlordane	1.99	1.94		ug/L		98	70 - 130
Heptachlor	1.99	2.08		ug/L		105	70 - 130
Heptachlor epoxide (isomer B)	1.99	1.89		ug/L		95	70 - 130
Hexachlorobenzene	1.99	1.88		ug/L		94	70 - 130
Hexachlorocyclopentadiene	1.99	1.91		ug/L		96	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	2.02		ug/L		102	70 - 130
Isophorone	1.99	1.95		ug/L		98	70 - 130
Lindane	1.99	2.06		ug/L		103	70 - 130
Malathion	1.99	2.10		ug/L		106	70 - 130
Methoxychlor	1.99	2.12		ug/L		106	70 - 130
Metolachlor	1.99	2.06		ug/L		104	70 - 130
Molinate	1.99	2.14		ug/L		107	70 - 130
Naphthalene	1.99	1.92		ug/L		97	70 - 130
Parathion	1.99	2.16		ug/L		108	70 - 130
Pendimethalin (Penoxaline)	1.99	1.89		ug/L		95	70 - 130
Phenanthrene	1.99	1.93		ug/L		97	70 - 130
Propachlor	1.99	2.23		ug/L		112	70 - 130
Pyrene	1.99	2.07		ug/L		104	70 - 130
Simazine	1.99	2.07		ug/L		104	70 - 130
Terbacil	1.99	2.35		ug/L		118	70 - 130
Terbutylazine	1.99	2.24		ug/L		112	70 - 130
Thiobencarb	1.99	2.07		ug/L		104	70 - 130
trans-Nonachlor	1.99	1.87		ug/L		94	70 - 130
Trifluralin	1.99	1.72		ug/L		86	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	87		70 - 130
Triphenylphosphate	110		70 - 130

Lab Sample ID: MRL 380-195755/22-A

Matrix: Water

Analysis Batch: 195892

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195755

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
1-Methylnaphthalene	0.0990	0.118		ug/L		120	50 - 150
2,4'-DDD	0.0990	0.0884	J	ug/L		89	50 - 150
2,4'-DDE	0.0990	0.0914	J	ug/L		92	50 - 150
2,4'-DDT	0.0990	0.111		ug/L		113	50 - 150
2,4-Dinitrotoluene	0.0990	0.0917	J	ug/L		93	50 - 150
2,6-Dinitrotoluene	0.0990	0.105		ug/L		106	50 - 150
2-Methylnaphthalene	0.0990	0.108		ug/L		109	50 - 150
4,4'-DDD	0.0990	0.115		ug/L		116	50 - 150
4,4'-DDE	0.0990	0.0977	J	ug/L		99	50 - 150
4,4'-DDT	0.0990	0.116		ug/L		117	50 - 150
Acenaphthene	0.0990	0.103		ug/L		104	50 - 150

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# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

Lab Sample ID: MRL 380-195755/22-A

Matrix: Water

Analysis Batch: 195892

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195755

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
Acenaphthylene	0.0990	0.0911	J	ug/L		92	50 - 150
Acetochlor	0.0990	0.135		ug/L		136	50 - 150
Alachlor	0.0495	0.0627		ug/L		127	50 - 150
alpha-BHC	0.0990	0.111		ug/L		112	50 - 150
alpha-Chlordane	0.0248	<0.029		ug/L		96	50 - 150
Anthracene	0.0198	0.0216		ug/L		109	50 - 150
Atrazine	0.0495	0.0630		ug/L		127	50 - 150
Benz(a)anthracene	0.0495	0.0555		ug/L		112	50 - 150
Benzo[a]pyrene	0.0198	0.0184	J	ug/L		93	50 - 150
Benzo[b]fluoranthene	0.0198	0.0239		ug/L		121	50 - 150
Benzo[g,h,i]perylene	0.0495	0.0544		ug/L		110	50 - 150
Benzo[k]fluoranthene	0.0198	0.0209		ug/L		106	50 - 150
beta-BHC	0.0990	0.111		ug/L		112	50 - 150
Bis(2-ethylhexyl) phthalate	0.594	0.695		ug/L		117	50 - 150
Bromacil	0.0990	0.127		ug/L		128	50 - 150
Butachlor	0.0495	0.0673		ug/L		136	50 - 150
Butylbenzylphthalate	0.495	0.646		ug/L		130	50 - 150
Chlorobenzilate	0.0990	0.135		ug/L		136	50 - 150
Chloroneb	0.0990	0.103		ug/L		104	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0990	0.132		ug/L		134	50 - 150
Chlorpyrifos	0.0495	0.0561		ug/L		113	50 - 150
Chrysene	0.0198	0.0196	J	ug/L		99	50 - 150
delta-BHC	0.0990	0.107		ug/L		108	50 - 150
Di(2-ethylhexyl)adipate	0.594	0.768		ug/L		129	50 - 150
Dibenz(a,h)anthracene	0.0495	0.0541		ug/L		109	50 - 150
Diclorvos (DDVP)	0.0495	0.0599		ug/L		121	50 - 150
Dieldrin	0.00990	0.0113		ug/L		114	50 - 150
Diethylphthalate	0.495	0.580		ug/L		117	50 - 150
Dimethylphthalate	0.495	0.536		ug/L		108	50 - 150
Di-n-butyl phthalate	0.495	0.476	J	ug/L		96	49 - 243
Di-n-octyl phthalate	0.0990	0.123		ug/L		124	50 - 150
Endosulfan I (Alpha)	0.0990	0.0976	J	ug/L		99	50 - 150
Endosulfan II (Beta)	0.0990	0.110		ug/L		111	50 - 150
Endosulfan sulfate	0.0990	0.106		ug/L		107	50 - 150
Endrin	0.00990	0.0146		ug/L		148	50 - 150
Endrin aldehyde	0.0990	0.132		ug/L		133	50 - 150
EPTC	0.0990	0.112		ug/L		113	50 - 150
Fluoranthene	0.0990	0.106		ug/L		107	50 - 150
Fluorene	0.0495	0.0532		ug/L		108	50 - 150
gamma-Chlordane	0.0248	0.0257	J	ug/L		104	50 - 150
Heptachlor	0.00990	0.0142		ug/L		143	50 - 150
Heptachlor epoxide (isomer B)	0.00990	0.00942	J	ug/L		95	50 - 150
Hexachlorobenzene	0.0495	0.0447	J	ug/L		90	50 - 150
Hexachlorocyclopentadiene	0.0495	<0.038		ug/L		69	50 - 150
Indeno[1,2,3-cd]pyrene	0.0495	0.0561		ug/L		113	50 - 150
Isophorone	0.0990	0.123		ug/L		124	50 - 150
Lindane	0.00990	0.0120		ug/L		121	50 - 150
Malathion	0.0990	0.127		ug/L		128	50 - 150
Methoxychlor	0.0495	0.0623		ug/L		126	50 - 150

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# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

Lab Sample ID: MRL 380-195755/22-A

Matrix: Water

Analysis Batch: 195892

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195755

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Metolachlor	0.0495	0.0631		ug/L		127	50 - 150
Molinate	0.0990	0.129		ug/L		130	50 - 150
Naphthalene	0.0990	0.0982	J	ug/L		99	50 - 150
Parathion	0.0990	0.101		ug/L		102	50 - 150
Pendimethalin (Penoxaline)	0.0990	0.0958	J	ug/L		97	50 - 150
Phenanthrene	0.0396	0.0384	J	ug/L		97	50 - 150
Propachlor	0.0495	0.0575		ug/L		116	50 - 150
Pyrene	0.0495	0.0560		ug/L		113	50 - 150
Simazine	0.0495	0.0510		ug/L		103	50 - 150
Terbacil	0.0990	0.119		ug/L		120	50 - 150
Terbutylazine	0.0990	0.105		ug/L		107	50 - 150
Thiobencarb	0.0990	0.120		ug/L		122	50 - 150
trans-Nonachlor	0.0248	0.0294	J	ug/L		119	50 - 150
Trifluralin	0.0990	0.0930	J	ug/L		94	50 - 150

Surrogate	MRL MRL		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	96		70 - 130
Perylene-d 12	77		70 - 130
Triphenylphosphate	106		70 - 130

Lab Sample ID: 380-190099-1 MS

Matrix: Water

Analysis Batch: 195892

Client Sample ID: Ka'amilo Wells Pump 1

Prep Type: Total/NA

Prep Batch: 195755

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
1-Methylnaphthalene	<0.097		1.93	1.89		ug/L		97	70 - 130
2,4'-DDD	<0.097		1.93	2.03		ug/L		105	70 - 130
2,4'-DDE	<0.097		1.93	2.16		ug/L		112	70 - 130
2,4'-DDT	<0.097		1.93	1.97		ug/L		102	70 - 130
2,4-Dinitrotoluene	<0.097		1.93	1.90		ug/L		98	70 - 130
2,6-Dinitrotoluene	<0.097		1.93	1.84		ug/L		95	70 - 130
2-Methylnaphthalene	<0.097		1.93	1.95		ug/L		100	70 - 130
4,4'-DDD	<0.097		1.93	1.99		ug/L		103	70 - 130
4,4'-DDE	<0.097		1.93	1.98		ug/L		102	70 - 130
4,4'-DDT	<0.097		1.93	2.06		ug/L		107	70 - 130
Acenaphthene	<0.097		1.93	1.89		ug/L		98	70 - 130
Acenaphthylene	<0.097		1.93	1.94		ug/L		101	70 - 130
Acetochlor	<0.097		1.93	2.12		ug/L		110	70 - 130
Alachlor	<0.048		1.93	2.28		ug/L		118	70 - 130
alpha-BHC	<0.097		1.93	2.05		ug/L		106	70 - 130
alpha-Chlordane	<0.048		1.93	2.08		ug/L		106	70 - 130
Anthracene	<0.019		1.93	1.80		ug/L		93	70 - 130
Atrazine	<0.048		1.93	2.06		ug/L		107	70 - 130
Benz(a)anthracene	<0.048		1.93	1.96		ug/L		102	70 - 130
Benzo[a]pyrene	<0.019		1.93	2.04		ug/L		105	70 - 130
Benzo[b]fluoranthene	<0.019		1.93	2.02		ug/L		105	70 - 130
Benzo[g,h,i]perylene	<0.048		1.93	1.80		ug/L		93	70 - 130
Benzo[k]fluoranthene	<0.019		1.93	1.85		ug/L		96	70 - 130

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# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: 380-190099-1 MS**

**Matrix: Water**

**Analysis Batch: 195892**

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

**Prep Type: Total/NA**

**Prep Batch: 195755**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
beta-BHC	<0.097		1.93	1.97		ug/L		102	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.93	1.91		ug/L		99	70 - 130
Bromacil	<0.097		1.93	1.69		ug/L		85	70 - 130
Butachlor	<0.048		1.93	2.23		ug/L		116	70 - 130
Butylbenzylphthalate	<0.48		1.93	2.34		ug/L		121	70 - 130
Chlorobenzilate	<0.097		1.93	2.33		ug/L		120	70 - 130
Chloroneb	<0.097		1.93	1.97		ug/L		102	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.93	2.03		ug/L		105	70 - 130
Chlorpyrifos	<0.048		1.93	2.14		ug/L		111	70 - 130
Chrysene	<0.019		1.93	1.88		ug/L		98	70 - 130
delta-BHC	<0.097		1.93	1.97		ug/L		102	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.93	2.18		ug/L		113	70 - 130
Dibenz(a,h)anthracene	<0.048		1.93	1.80		ug/L		93	70 - 130
Diclorvos (DDVP)	<0.048		1.93	1.87		ug/L		97	70 - 130
Dieldrin	0.070		1.93	2.23		ug/L		112	70 - 130
Diethylphthalate	<0.48		1.93	2.30		ug/L		119	70 - 130
Dimethylphthalate	<0.48		1.93	2.08		ug/L		108	70 - 130
Di-n-butyl phthalate	<0.97		3.86	4.01		ug/L		104	70 - 130
Di-n-octyl phthalate	<0.097		1.93	1.82		ug/L		94	70 - 130
Endosulfan I (Alpha)	<0.097		1.93	1.89		ug/L		98	70 - 130
Endosulfan II (Beta)	<0.097		1.93	2.02		ug/L		105	70 - 130
Endosulfan sulfate	<0.097		1.93	2.00		ug/L		104	70 - 130
Endrin	<0.0097		1.93	2.47		ug/L		128	70 - 130
Endrin aldehyde	<0.097		1.93	1.83		ug/L		95	60 - 130
EPTC	<0.097		1.93	2.32		ug/L		120	70 - 130
Fluoranthene	<0.097		1.93	1.99		ug/L		103	70 - 130
Fluorene	<0.048		1.93	1.98		ug/L		102	70 - 130
gamma-Chlordane	<0.048		1.93	2.02		ug/L		104	70 - 130
Heptachlor	<0.0097		1.93	2.15		ug/L		112	70 - 130
Heptachlor epoxide (isomer B)	0.012		1.93	1.92		ug/L		99	70 - 130
Hexachlorobenzene	<0.048		1.93	1.95		ug/L		101	70 - 130
Hexachlorocyclopentadiene	<0.048		1.93	2.16		ug/L		112	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.93	1.96		ug/L		101	70 - 130
Isophorone	<0.097		1.93	1.93		ug/L		100	70 - 130
Lindane	<0.0097		1.93	2.09		ug/L		108	70 - 130
Malathion	<0.097		1.93	2.12		ug/L		110	70 - 130
Methoxychlor	<0.048		1.93	2.27		ug/L		117	70 - 130
Metolachlor	<0.048		1.93	2.12		ug/L		110	70 - 130
Molinate	<0.097		1.93	2.21		ug/L		115	70 - 130
Naphthalene	<0.097		1.93	1.93		ug/L		100	70 - 130
Parathion	<0.097		1.93	2.28		ug/L		118	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.93	2.12		ug/L		110	70 - 130
Phenanthrene	<0.039		1.93	1.89		ug/L		98	70 - 130
Propachlor	<0.048		1.93	2.32		ug/L		120	70 - 130
Pyrene	<0.048		1.93	2.01		ug/L		104	70 - 130
Simazine	<0.048		1.93	2.03		ug/L		105	70 - 130
Terbacil	<0.097		1.93	2.02		ug/L		105	70 - 130
Terbuthylazine	<0.097		1.93	2.31		ug/L		120	70 - 130
Thiobencarb	<0.097		1.93	2.08		ug/L		108	70 - 130

# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: 380-190099-1 MS**

**Matrix: Water**

**Analysis Batch: 195892**

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

**Prep Type: Total/NA**

**Prep Batch: 195755**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
trans-Nonachlor	<0.048		1.93	1.93		ug/L		99	70 - 130
Trifluralin	<0.097		1.93	2.00		ug/L		104	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	87		70 - 130
Triphenylphosphate	108		70 - 130

**Lab Sample ID: 380-190102-I-1-A DU**

**Matrix: Water**

**Analysis Batch: 195892**

**Client Sample ID: Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 195755**

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

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# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

Lab Sample ID: 380-190102-I-1-A DU

Matrix: Water

Analysis Batch: 195892

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 195755

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Dibenz(a,h)anthracene	<0.048		<0.048		ug/L		NC	20
Diclorvos (DDVP)	<0.048		<0.048		ug/L		NC	20
Dieldrin	0.023		0.0202		ug/L		13	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.097		ug/L		NC	20
Endrin	<0.0097		<0.0097		ug/L		NC	20
Endrin aldehyde	<0.097		<0.097		ug/L		NC	20
EPTC	<0.097		<0.097		ug/L		NC	20
Fluoranthene	<0.097		<0.097		ug/L		NC	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-Chlordane	<0.048		<0.048		ug/L		NC	20
Heptachlor	<0.0097		<0.0097		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0097		<0.0097		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.048		ug/L		NC	20
Hexachlorocyclopentadiene	<0.048		<0.048		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.048		ug/L		NC	20
Isophorone	<0.097		<0.097		ug/L		NC	20
Lindane	<0.0097		<0.0097		ug/L		NC	20
Malathion	<0.097		<0.097		ug/L		NC	20
Methoxychlor	<0.048		<0.048		ug/L		NC	20
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.097		<0.097		ug/L		NC	20
Naphthalene	<0.097		<0.097		ug/L		NC	20
Parathion	<0.097		<0.097		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.097		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.048		<0.048		ug/L		NC	20
Pyrene	<0.048		<0.048		ug/L		NC	20
Simazine	<0.048		<0.048		ug/L		NC	20
Terbacil	<0.097		<0.097		ug/L		NC	20
Terbutylazine	<0.097		<0.097		ug/L		NC	20
Thiobencarb	<0.097		<0.097		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.19		ug/L		NC	20
trans-Nonachlor	<0.048		<0.048		ug/L		NC	20
Trifluralin	<0.097		<0.097		ug/L		NC	20

Surrogate	DU DU		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	94		70 - 130
Perylene-d12	80		70 - 130
Triphenylphosphate	107		70 - 130

# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: MB 570-678015/1-A**  
**Matrix: Water**  
**Analysis Batch: 681700**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 678015**

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>			<i>N/A</i>	<i>01/02/26 12:55</i>	<i>01/13/26 15:02</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>	90		33 - 139	<i>01/02/26 12:55</i>	<i>01/13/26 15:02</i>	1
<i>2-Fluorobiphenyl (Surr)</i>	102		33 - 126	<i>01/02/26 12:55</i>	<i>01/13/26 15:02</i>	1
<i>2-Fluorophenol (Surr)</i>	71		12 - 120	<i>01/02/26 12:55</i>	<i>01/13/26 15:02</i>	1
<i>Nitrobenzene-d5 (Surr)</i>	125	S1+	36 - 120	<i>01/02/26 12:55</i>	<i>01/13/26 15:02</i>	1
<i>Phenol-d6 (Surr)</i>	46		10 - 120	<i>01/02/26 12:55</i>	<i>01/13/26 15:02</i>	1
<i>p-Terphenyl-d14 (Surr)</i>	112		47 - 131	<i>01/02/26 12:55</i>	<i>01/13/26 15:02</i>	1

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

**Lab Sample ID: MB 570-678015/1-A**  
**Matrix: Water**  
**Analysis Batch: 681620**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 678015**

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1-Methylnaphthalene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
2-Methylnaphthalene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Acenaphthene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Acenaphthylene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Anthracene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Benzo[a]anthracene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Benzo[a]pyrene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Chrysene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Fluoranthene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Fluorene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Naphthalene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Phenanthrene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1
Pyrene	<0.20		0.20	ug/L		01/02/26 12:55	01/13/26 08:10	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	102		28 - 127	<i>01/02/26 12:55</i>	<i>01/13/26 08:10</i>	1
<i>2-Fluorobiphenyl (Surr)</i>	95		31 - 120	<i>01/02/26 12:55</i>	<i>01/13/26 08:10</i>	1
<i>2-Fluorophenol (Surr)</i>	72		17 - 120	<i>01/02/26 12:55</i>	<i>01/13/26 08:10</i>	1
<i>Nitrobenzene-d5 (Surr)</i>	112		27 - 120	<i>01/02/26 12:55</i>	<i>01/13/26 08:10</i>	1
<i>Phenol-d6 (Surr)</i>	45		10 - 120	<i>01/02/26 12:55</i>	<i>01/13/26 08:10</i>	1
<i>p-Terphenyl-d14 (Surr)</i>	113		45 - 120	<i>01/02/26 12:55</i>	<i>01/13/26 08:10</i>	1

# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: LCS 570-678015/2-A**

**Matrix: Water**

**Analysis Batch: 681620**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 678015**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
1-Methylnaphthalene	20.0	16.6		ug/L		83	47 - 120	
2-Methylnaphthalene	20.0	16.2		ug/L		81	43 - 120	
Acenaphthene	20.0	19.2		ug/L		96	60 - 132	
Acenaphthylene	20.0	19.4		ug/L		97	54 - 126	
Anthracene	20.0	20.2		ug/L		101	43 - 120	
Benzo[a]anthracene	20.0	22.0		ug/L		110	42 - 133	
Benzo[a]pyrene	20.0	20.7		ug/L		104	32 - 148	
Benzo[b]fluoranthene	20.0	21.1		ug/L		106	42 - 140	
Benzo[g,h,i]perylene	20.0	20.6		ug/L		103	1 - 195	
Benzo[k]fluoranthene	20.0	20.1		ug/L		101	25 - 146	
Chrysene	20.0	20.3		ug/L		101	44 - 140	
Dibenz(a,h)anthracene	20.0	22.3		ug/L		112	1 - 200	
Fluoranthene	20.0	19.8		ug/L		99	43 - 121	
Fluorene	20.0	19.2		ug/L		96	70 - 120	
Indeno[1,2,3-cd]pyrene	20.0	23.1		ug/L		116	1 - 151	
Naphthalene	20.0	15.3		ug/L		77	36 - 120	
Phenanthrene	20.0	19.3		ug/L		96	65 - 120	
Pyrene	20.0	21.8		ug/L		109	70 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	99		28 - 127
2-Fluorobiphenyl (Surr)	94		31 - 120
2-Fluorophenol (Surr)	75		17 - 120
Nitrobenzene-d5 (Surr)	85		27 - 120
Phenol-d6 (Surr)	49		10 - 120
p-Terphenyl-d14 (Surr)	107		45 - 120

**Lab Sample ID: LCSD 570-678015/3-A**

**Matrix: Water**

**Analysis Batch: 681620**

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

**Prep Type: Total/NA**

**Prep Batch: 678015**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	
									RPD	Limit
1-Methylnaphthalene	20.0	3.45	*- *1	ug/L		17	47 - 120	131	20	
2-Methylnaphthalene	20.0	3.38	*- *1	ug/L		17	43 - 120	131	20	
Acenaphthene	20.0	3.51	*- *1	ug/L		18	60 - 132	138	29	
Acenaphthylene	20.0	3.70	*- *1	ug/L		18	54 - 126	136	45	
Anthracene	20.0	3.93	*- *1	ug/L		20	43 - 120	135	40	
Benzo[a]anthracene	20.0	3.88	*- *1	ug/L		19	42 - 133	140	32	
Benzo[a]pyrene	20.0	3.50	*- *1	ug/L		18	32 - 148	142	43	
Benzo[b]fluoranthene	20.0	3.71	*- *1	ug/L		19	42 - 140	140	43	
Benzo[g,h,i]perylene	20.0	3.69	*1	ug/L		18	1 - 195	139	61	
Benzo[k]fluoranthene	20.0	3.47	*- *1	ug/L		17	25 - 146	141	38	
Chrysene	20.0	3.70	*- *1	ug/L		18	44 - 140	138	53	
Dibenz(a,h)anthracene	20.0	4.17	*1	ug/L		21	1 - 200	137	75	
Fluoranthene	20.0	3.63	*- *1	ug/L		18	43 - 121	138	40	
Fluorene	20.0	3.63	*- *1	ug/L		18	70 - 120	136	23	
Indeno[1,2,3-cd]pyrene	20.0	4.23	*1	ug/L		21	1 - 151	138	60	
Naphthalene	20.0	3.20	*- *1	ug/L		16	36 - 120	131	39	

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# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: LCSD 570-678015/3-A**

**Matrix: Water**

**Analysis Batch: 681620**

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

**Prep Type: Total/NA**

**Prep Batch: 678015**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	3.67	*- *1	ug/L		18	65 - 120	136	24
Pyrene	20.0	4.19	*- *1	ug/L		21	70 - 120	136	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	16	S1-	28 - 127
2-Fluorobiphenyl (Surr)	16	S1-	31 - 120
2-Fluorophenol (Surr)	11	S1-	17 - 120
Nitrobenzene-d5 (Surr)	16	S1-	27 - 120
Phenol-d6 (Surr)	7	S1-	10 - 120
p-Terphenyl-d14 (Surr)	19	S1-	45 - 120

**Lab Sample ID: 380-190087-A-1-A MS**

**Matrix: Water**

**Analysis Batch: 681620**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 678015**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19	*- *1	19.2	15.3		ug/L		80	36 - 120
2-Methylnaphthalene	<0.19	*- *1	19.2	15.4		ug/L		80	32 - 124
Acenaphthene	<0.19	*- *1	19.2	18.1		ug/L		94	47 - 145
Acenaphthylene	<0.19	*- *1	19.2	18.6		ug/L		97	33 - 145
Anthracene	<0.19	*- *1	19.2	18.8		ug/L		98	27 - 133
Benzo[a]anthracene	<0.19	*- *1	19.2	20.3		ug/L		106	33 - 143
Benzo[a]pyrene	<0.19	*- *1	19.2	19.2		ug/L		100	17 - 163
Benzo[b]fluoranthene	<0.19	*- *1	19.2	20.0		ug/L		104	24 - 159
Benzo[g,h,i]perylene	<0.19	*1	19.2	18.7		ug/L		97	1 - 219
Benzo[k]fluoranthene	<0.19	*- *1	19.2	18.7		ug/L		97	11 - 162
Chrysene	<0.19	*- *1	19.2	19.0		ug/L		99	17 - 168
Dibenz(a,h)anthracene	<0.19	*1	19.2	20.6		ug/L		107	1 - 227
Fluoranthene	<0.19	*- *1	19.2	18.4		ug/L		96	26 - 137
Fluorene	<0.19	*- *1	19.2	18.1		ug/L		94	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19	*1	19.2	21.1		ug/L		110	1 - 171
Naphthalene	<0.19	*- *1	19.2	14.3		ug/L		75	21 - 133
Phenanthrene	<0.19	*- *1	19.2	18.0		ug/L		94	54 - 120
Pyrene	<0.19	*- *1	19.2	20.3		ug/L		106	52 - 120

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	92		28 - 127
2-Fluorobiphenyl (Surr)	92		31 - 120
2-Fluorophenol (Surr)	70		17 - 120
Nitrobenzene-d5 (Surr)	80		27 - 120
Phenol-d6 (Surr)	44		10 - 120
p-Terphenyl-d14 (Surr)	101		45 - 120

# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

Lab Sample ID: 380-190087-A-1-B MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 681620

Prep Batch: 678015

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1-Methylnaphthalene	<0.19	*- *1	19.2	15.2		ug/L		79	36 - 120	0	30
2-Methylnaphthalene	<0.19	*- *1	19.2	15.4		ug/L		80	32 - 124	0	30
Acenaphthene	<0.19	*- *1	19.2	17.7		ug/L		92	47 - 145	3	48
Acenaphthylene	<0.19	*- *1	19.2	18.2		ug/L		95	33 - 145	2	74
Anthracene	<0.19	*- *1	19.2	18.7		ug/L		97	27 - 133	1	66
Benzo[a]anthracene	<0.19	*- *1	19.2	20.1		ug/L		105	33 - 143	1	53
Benzo[a]pyrene	<0.19	*- *1	19.2	18.9		ug/L		98	17 - 163	1	72
Benzo[b]fluoranthene	<0.19	*- *1	19.2	19.5		ug/L		102	24 - 159	3	71
Benzo[g,h,i]perylene	<0.19	*1	19.2	18.1		ug/L		94	1 - 219	3	97
Benzo[k]fluoranthene	<0.19	*- *1	19.2	17.8		ug/L		93	11 - 162	4	63
Chrysene	<0.19	*- *1	19.2	18.4		ug/L		96	17 - 168	3	87
Dibenz(a,h)anthracene	<0.19	*1	19.2	19.8		ug/L		103	1 - 227	4	126
Fluoranthene	<0.19	*- *1	19.2	18.4		ug/L		96	26 - 137	0	66
Fluorene	<0.19	*- *1	19.2	17.8		ug/L		93	59 - 121	2	38
Indeno[1,2,3-cd]pyrene	<0.19	*1	19.2	20.4		ug/L		106	1 - 171	3	99
Naphthalene	<0.19	*- *1	19.2	14.0		ug/L		73	21 - 133	3	65
Phenanthrene	<0.19	*- *1	19.2	17.9		ug/L		93	54 - 120	1	39
Pyrene	<0.19	*- *1	19.2	20.1		ug/L		105	52 - 120	1	49

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	89		28 - 127
2-Fluorobiphenyl (Surr)	85		31 - 120
2-Fluorophenol (Surr)	66		17 - 120
Nitrobenzene-d5 (Surr)	78		27 - 120
Phenol-d6 (Surr)	42		10 - 120
p-Terphenyl-d14 (Surr)	96		45 - 120

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

Lab Sample ID: MB 570-678421/13

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 678421

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
GRO (C6-C10)	<10		10	ug/L			01/04/26 18:26	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	98		38 - 134		01/04/26 18:26	1

Lab Sample ID: LCS 570-678421/1011

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 678421

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Gasoline Range Organics (C4-C13)	400	444		ug/L		111	78 - 120

# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: LCS 570-678421/1011**

**Matrix: Water**

**Analysis Batch: 678421**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		38 - 134

**Lab Sample ID: LCSD 570-678421/12**

**Matrix: Water**

**Analysis Batch: 678421**

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

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	400	426		ug/L		107	78 - 120	4	10

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		38 - 134

**Lab Sample ID: MRL 570-678421/14**

**Matrix: Water**

**Analysis Batch: 678421**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	10.0	9.44	J	ug/L		94	50 - 150

	MRL	MRL	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		38 - 134

**Lab Sample ID: 380-190087-C-1 MS**

**Matrix: Water**

**Analysis Batch: 678421**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	<10	F1	400	490		ug/L		122	68 - 122

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		38 - 134

**Lab Sample ID: 380-190087-C-1 MSD**

**Matrix: Water**

**Analysis Batch: 678421**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10	F1	400	498	F1	ug/L		125	68 - 122	2	18

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		38 - 134

# QC Sample Results

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: MB 570-678355/1-A**  
**Matrix: Water**  
**Analysis Batch: 679714**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 678355**

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (C10-C24)	<25		25	ug/L		01/04/26 09:32	01/07/26 21:05	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		01/04/26 09:32	01/07/26 21:05	1
C8-C18	<25		25	ug/L		01/04/26 09:32	01/07/26 21:05	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
n-Octacosane (Surr)	104		60 - 130			01/04/26 09:32	01/07/26 21:05	1

**Lab Sample ID: LCS 570-678355/2-A**  
**Matrix: Water**  
**Analysis Batch: 679714**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 678355**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	1600	1500		ug/L		94	56 - 127
Surrogate	LCS LCS		Limits			%Rec	
	%Recovery	Qualifier					
n-Octacosane (Surr)	97		60 - 130				

**Lab Sample ID: LCSD 570-678355/3-A**  
**Matrix: Water**  
**Analysis Batch: 679714**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 678355**

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
		Result	Qualifier						
C10-C28	1600	1520		ug/L		95	56 - 127	1	23
Surrogate	LCSD LCSD		Limits			%Rec			
	%Recovery	Qualifier							
n-Octacosane (Surr)	97		60 - 130						

**Lab Sample ID: MRL 570-678355/4-A**  
**Matrix: Water**  
**Analysis Batch: 679714**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 678355**

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
C10-C28	0.0200	0.0214	J	mg/L		107	50 - 150
Surrogate	MRL MRL		Limits			%Rec	
	%Recovery	Qualifier					
n-Octacosane (Surr)	107		60 - 130				

**Lab Sample ID: 380-190087-B-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 679714**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 678355**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
C10-C28	<26		1660	1690		ug/L		102	70 - 130
Surrogate	MS MS		Limits					%Rec	
	%Recovery	Qualifier							
n-Octacosane (Surr)	107		60 - 130						

# QC Sample Results

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

Job ID: 380-190099-1  
 SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: 380-190087-B-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 679714**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 678355**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1640	1800		ug/L		110	70 - 130	6	20
<b>MSD MSD</b>											
Surrogate	%Recovery	MSD Qualifier	Limits								
<i>n-Octacosane (Surr)</i>	114		60 - 130								

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# QC Association Summary

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

## GC/MS Semi VOA

### Prep Batch: 195755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-190099-1	Ka'amilo Wells Pump 1	Total/NA	Water	525.2	
MB 380-195755/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-195755/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-195755/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-190099-1 MS	Ka'amilo Wells Pump 1	Total/NA	Water	525.2	
380-190102-I-1-A DU	Duplicate	Total/NA	Water	525.2	

### Analysis Batch: 195892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-190099-1	Ka'amilo Wells Pump 1	Total/NA	Water	525.2	195755
MB 380-195755/21-A	Method Blank	Total/NA	Water	525.2	195755
LCS 380-195755/23-A	Lab Control Sample	Total/NA	Water	525.2	195755
MRL 380-195755/22-A	Lab Control Sample	Total/NA	Water	525.2	195755
380-190099-1 MS	Ka'amilo Wells Pump 1	Total/NA	Water	525.2	195755
380-190102-I-1-A DU	Duplicate	Total/NA	Water	525.2	195755

### Prep Batch: 678015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-190099-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1	
MB 570-678015/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-678015/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-678015/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-190087-A-1-A MS	Matrix Spike	Total/NA	Water	625.1	
380-190087-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

### Analysis Batch: 681620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-190099-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1 SIM	678015
MB 570-678015/1-A	Method Blank	Total/NA	Water	625.1 SIM	678015
LCS 570-678015/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	678015
LCSD 570-678015/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	678015
380-190087-A-1-A MS	Matrix Spike	Total/NA	Water	625.1 SIM	678015
380-190087-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	678015

### Analysis Batch: 681700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-190099-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1	678015
MB 570-678015/1-A	Method Blank	Total/NA	Water	625.1	678015

## GC VOA

### Analysis Batch: 678421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-190099-1	Ka'amilo Wells Pump 1	Total/NA	Water	8015B GRO LL	
380-190099-2	TB: Ka'amilo Wells Pump 1	Total/NA	Water	8015B GRO LL	
MB 570-678421/13	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-678421/1011	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-678421/12	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-678421/14	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-190087-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-190087-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

# QC Association Summary

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

Job ID: 380-190099-1  
 SDG: Weekly: Ka'amilo Wells Pump 1

## GC Semi VOA

### Prep Batch: 678355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-190099-1	Ka'amilo Wells Pump 1	Total/NA	Water	3510C	
MB 570-678355/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-678355/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-678355/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-678355/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-190087-B-1-B MS	Matrix Spike	Total/NA	Water	3510C	
380-190087-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

### Analysis Batch: 679714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-190099-1	Ka'amilo Wells Pump 1	Total/NA	Water	8015B	678355
MB 570-678355/1-A	Method Blank	Total/NA	Water	8015B	678355
LCS 570-678355/2-A	Lab Control Sample	Total/NA	Water	8015B	678355
LCSD 570-678355/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	678355
MRL 570-678355/4-A	Lab Control Sample	Total/NA	Water	8015B	678355
380-190087-B-1-B MS	Matrix Spike	Total/NA	Water	8015B	678355
380-190087-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	678355



# Lab Chronicle

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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

**Lab Sample ID: 380-190099-1**

Date Collected: 12/29/25 11:57

Matrix: Water

Date Received: 12/31/25 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			195755	OTM3	EA POM	01/05/26 07:49
Total/NA	Analysis	525.2		1	195892	Q8LA	EA POM	01/06/26 11:13
Total/NA	Prep	625.1			678015	VAW2	EET CAL 4	01/02/26 12:55
Total/NA	Analysis	625.1		1	681700	PQS1	EET CAL 4	01/13/26 18:16
Total/NA	Prep	625.1			678015	VAW2	EET CAL 4	01/02/26 12:55
Total/NA	Analysis	625.1 SIM		1	681620	PQS1	EET CAL 4	01/13/26 14:31
Total/NA	Analysis	8015B GRO LL		1	678421	YD9V	EET CAL 4	01/04/26 23:02
Total/NA	Prep	3510C			678355	TVD6	EET CAL 4	01/04/26 09:33
Total/NA	Analysis	8015B		1	679714	NR	EET CAL 4	01/08/26 01:02

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

**Lab Sample ID: 380-190099-2**

Date Collected: 12/29/25 11:57

Matrix: Water

Date Received: 12/31/25 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	678421	YD9V	EET CAL 4	01/05/26 03:05

**Laboratory References:**

EA POM = Eurofins 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: 380-190099-1  
 SDG: Weekly: Ka'amilo Wells Pump 1

## Laboratory: Eurofins 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	11-17-26
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-26

# Accreditation/Certification Summary

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

Job ID: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

## 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: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

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 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: 380-190099-1  
SDG: Weekly: Ka'amilo Wells Pump 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-190099-1	Ka'amilo Wells Pump 1	Water	12/29/25 11:57	12/31/25 09:57	Hawaii
380-190099-2	TB: Ka'amilo Wells Pump 1	Water	12/29/25 11:57	12/31/25 09:57	Hawaii

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**Eurofins Eaton Analytical Pomona**

941 Corporate Center Drive  
 Pomona, CA 91768-2842  
 Phone: 626-386-1100

**Chain of Custody Record**



eurofins

Environ

Loc: 380  
**190099**

<b>Client Information (Sub Contract Lab)</b>		Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-291397.1	
Client Contact: <b>Shipping/Receiving</b>		Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1	
Company: Eurofins Environment Testing Southwest L			Accreditations Required (See note): State - Hawaii		Job #: 380-190099-1	
Address: 2841 Dow Avenue, Suite 100,		Due Date Requested: 1/14/2026	<b>Analysis Requested</b>		Preservation Codes:	
City: Tustin		TAT Requested (days): N/A				
State, Zip: CA, 92780		PO #: N/A	Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8015B_DRO_LL_CS2510C_LLHNL Ranges: C10- C24/C24-C35/C35-18 8015B_GRO_LLJ5030C(MOD) GRO 625_1_SMI/25_Prep(MOD) Extended PAH List	380-190099 Chain of Custody	Total Number 7 1	
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 (W=water, S=solid, O=soils)</b>	
		<b>Preservation Code:</b>				<b>Special Instructions/Note:</b>
Ka'amilo Wells Pump 1 (380-190099-1)		12/29/25	11:57 Hawaiian	G	Water	MRLs are needed. Confirm any hits >RL.
TB: Ka'amilo Wells Pump 1 (380-190099-2)		12/29/25	11:57 Hawaiian	G	Water	MRLs are needed.
Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.						
<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>Maria Lopez</i>		Date/Time: 12/31/25 1500	Company: EEAP	Received by: <i>H</i>		Date/Time: 12-31-25 1500 Company: WP
Relinquished by: <i>JA</i>		Date/Time: 12-31-25 1552	Company: WP	Received by: <i>RV</i>		Date/Time: 12-31-25 15:52 Company: EC
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time: Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.7/1.8 I24				

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## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-190099-1  
SDG Number: Weekly: Ka'amilo Wells Pump 1

**Login Number: 190099**

**List Number: 1**

**Creator: Ngo, Theodore**

**List Source: Eurofins 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: 380-190099-1  
SDG Number: Weekly: Ka'amilo Wells Pump 1

**Login Number: 190099**

**List Number: 2**

**Creator: Szyborski, Jessica**

**List Source: Eurofins Calscience**

**List Creation: 01/02/26 11:01 AM**

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.	True	
Sample custody seals, if present, are intact.	True	
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	1.7/1.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	