

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

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

JOB NUMBER

380-157093-1

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: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

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

Glossary

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

Case Narrative

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

Job ID: 380-157093-1

Job ID: 380-157093-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-157093-1

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

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

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

Receipt

The samples were received on 6/25/2025 9:19 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.3°C and 4.6°C.

GC/MS Semi VOA

Method 625.1: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: Ka'amilo Wells Pump 1 (380-157093-1) and Ka'amilo Wells Pump 2 (380-157093-3). Percent recoveries are based on the amount spiked.

Method 625.1_SIM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: Ka'amilo Wells Pump 1 (380-157093-1) and Ka'amilo Wells Pump 2 (380-157093-3). Percent recoveries are based on the amount spiked.

Method 625.1_SIM: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 570-589749 and analytical batch 570-594207: 1-Methylnaphthalene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

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.

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Detection Summary

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-157093-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.067		0.0098	ug/L	1		525.2	Total/NA
Heptachlor epoxide (isomer B)	0.014		0.0098	ug/L	1		525.2	Total/NA

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

Lab Sample ID: 380-157093-2

No Detections.

Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-157093-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.063		0.0098	ug/L	1		525.2	Total/NA
Heptachlor epoxide (isomer B)	0.012		0.0098	ug/L	1		525.2	Total/NA

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

Lab Sample ID: 380-157093-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-157093-1

Date Collected: 06/23/25 11:52

Matrix: Water

Date Received: 06/25/25 09:19

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
2,4'-DDD	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
2,4'-DDE	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
2,4'-DDT	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
2-Methylnaphthalene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
4,4'-DDD	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
4,4'-DDE	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
4,4'-DDT	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Acenaphthene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Acenaphthylene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Acetochlor	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Alachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
alpha-BHC	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
alpha-Chlordane	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Anthracene	<0.020		0.020	ug/L		06/26/25 08:25	06/27/25 14:40	1
Atrazine	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Benz(a)anthracene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Benzo[a]pyrene	<0.020		0.020	ug/L		06/26/25 08:25	06/27/25 14:40	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		06/26/25 08:25	06/27/25 14:40	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		06/26/25 08:25	06/27/25 14:40	1
beta-BHC	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		06/26/25 08:25	06/27/25 14:40	1
Bromacil	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Butachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Butylbenzylphthalate	<0.49		0.49	ug/L		06/26/25 08:25	06/27/25 14:40	1
Chlorobenzilate	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Chloroneb	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Chlorpyrifos	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Chrysene	<0.020		0.020	ug/L		06/26/25 08:25	06/27/25 14:40	1
delta-BHC	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		06/26/25 08:25	06/27/25 14:40	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Dieldrin	0.067		0.0098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Diethylphthalate	<0.49		0.49	ug/L		06/26/25 08:25	06/27/25 14:40	1
Dimethylphthalate	<0.49		0.49	ug/L		06/26/25 08:25	06/27/25 14:40	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		06/26/25 08:25	06/27/25 14:40	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Endosulfan sulfate	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Endrin	<0.0098		0.0098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Endrin aldehyde	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
EPTC	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Fluoranthene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1

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Client Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-157093-1

Date Collected: 06/23/25 11:52

Matrix: Water

Date Received: 06/25/25 09:19

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		06/26/25 08:25	06/27/25 14:40	1
gamma-Chlordane	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Heptachlor	<0.0098		0.0098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Heptachlor epoxide (isomer B)	0.014		0.0098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Hexachlorobenzene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Isophorone	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Lindane	<0.0098		0.0098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Malathion	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Methoxychlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Metolachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Molinate	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Naphthalene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Parathion	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Phenanthrene	<0.039		0.039	ug/L		06/26/25 08:25	06/27/25 14:40	1
Propachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Pyrene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Simazine	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Terbacil	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Terbutylazine	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Thiobencarb	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		06/26/25 08:25	06/27/25 14:40	1
trans-Nonachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 14:40	1
Trifluralin	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 14:40	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	06/26/25 08:25	06/27/25 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	94		70 - 130	06/26/25 08:25	06/27/25 14:40	1
Perylene-d12	86		70 - 130	06/26/25 08:25	06/27/25 14:40	1
Triphenylphosphate	110		70 - 130	06/26/25 08:25	06/27/25 14:40	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		06/26/25 10:10	07/08/25 16:01	1
2-Methylnaphthalene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Acenaphthene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Acenaphthylene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Anthracene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Benzo[a]anthracene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Benzo[a]pyrene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Chrysene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Fluoranthene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-157093-1

Date Collected: 06/23/25 11:52

Matrix: Water

Date Received: 06/25/25 09:19

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		06/26/25 10:10	07/08/25 16:01	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Naphthalene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Phenanthrene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1
Pyrene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	100		28 - 127	06/26/25 10:10	07/08/25 16:01	1
2-Fluorobiphenyl (Surr)	79		31 - 120	06/26/25 10:10	07/08/25 16:01	1
2-Fluorophenol (Surr)	52		17 - 120	06/26/25 10:10	07/08/25 16:01	1
Nitrobenzene-d5 (Surr)	83		27 - 120	06/26/25 10:10	07/08/25 16:01	1
Phenol-d6 (Surr)	31		10 - 120	06/26/25 10:10	07/08/25 16:01	1
p-Terphenyl-d14 (Surr)	90		45 - 120	06/26/25 10:10	07/08/25 16:01	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
Tentatively Identified Compound	None		ug/L			N/A	06/26/25 10:10	07/10/25 13:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	92		33 - 139	06/26/25 10:10	07/10/25 13:19	1
2-Fluorobiphenyl (Surr)	89		33 - 126	06/26/25 10:10	07/10/25 13:19	1
2-Fluorophenol (Surr)	58		12 - 120	06/26/25 10:10	07/10/25 13:19	1
Nitrobenzene-d5 (Surr)	95		36 - 120	06/26/25 10:10	07/10/25 13:19	1
Phenol-d6 (Surr)	37		10 - 120	06/26/25 10:10	07/10/25 13:19	1
p-Terphenyl-d14 (Surr)	95		47 - 131	06/26/25 10:10	07/10/25 13:19	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			06/26/25 22:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		38 - 134		06/26/25 22:50	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		06/30/25 09:17	07/06/25 06:35	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		06/30/25 09:17	07/06/25 06:35	1
C8-C18	<25		25	ug/L		06/30/25 09:17	07/06/25 06:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	101		60 - 130	06/30/25 09:17	07/06/25 06:35	1

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

Lab Sample ID: 380-157093-2

Date Collected: 06/23/25 11:52

Matrix: Water

Date Received: 06/25/25 09:19

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			06/26/25 23:14	1

Client Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-157093-2

Date Collected: 06/23/25 11:52

Matrix: Water

Date Received: 06/25/25 09:19

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		38 - 134		06/26/25 23:14	1

Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-157093-3

Date Collected: 06/23/25 12:37

Matrix: Water

Date Received: 06/25/25 09:19

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
2,4'-DDD	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
2,4'-DDE	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
2,4'-DDT	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
2-Methylnaphthalene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
4,4'-DDD	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
4,4'-DDE	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
4,4'-DDT	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Acenaphthene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Acenaphthylene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Acetochlor	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Alachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
alpha-BHC	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
alpha-Chlordane	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Anthracene	<0.020		0.020	ug/L		06/26/25 08:25	06/27/25 15:01	1
Atrazine	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Benz(a)anthracene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Benzo[a]pyrene	<0.020		0.020	ug/L		06/26/25 08:25	06/27/25 15:01	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		06/26/25 08:25	06/27/25 15:01	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		06/26/25 08:25	06/27/25 15:01	1
beta-BHC	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		06/26/25 08:25	06/27/25 15:01	1
Bromacil	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Butachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Butylbenzylphthalate	<0.49		0.49	ug/L		06/26/25 08:25	06/27/25 15:01	1
Chlorobenzilate	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Chloroneb	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Chlorpyrifos	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Chrysene	<0.020		0.020	ug/L		06/26/25 08:25	06/27/25 15:01	1
delta-BHC	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		06/26/25 08:25	06/27/25 15:01	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Dieldrin	0.063		0.0098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Diethylphthalate	<0.49		0.49	ug/L		06/26/25 08:25	06/27/25 15:01	1
Dimethylphthalate	<0.49		0.49	ug/L		06/26/25 08:25	06/27/25 15:01	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		06/26/25 08:25	06/27/25 15:01	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1

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Client Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-157093-3

Date Collected: 06/23/25 12:37

Matrix: Water

Date Received: 06/25/25 09:19

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I (Alpha)	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Endosulfan sulfate	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Endrin	<0.0098		0.0098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Endrin aldehyde	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
EPTC	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Fluoranthene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Fluorene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
gamma-Chlordane	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Heptachlor	<0.0098		0.0098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Heptachlor epoxide (isomer B)	0.012		0.0098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Hexachlorobenzene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Isophorone	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Lindane	<0.0098		0.0098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Malathion	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Methoxychlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Metolachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Molinate	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Naphthalene	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Parathion	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Phenanthrene	<0.039		0.039	ug/L		06/26/25 08:25	06/27/25 15:01	1
Propachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Pyrene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Simazine	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Terbacil	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Terbutylazine	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Thiobencarb	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		06/26/25 08:25	06/27/25 15:01	1
trans-Nonachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 15:01	1
Trifluralin	<0.098		0.098	ug/L		06/26/25 08:25	06/27/25 15:01	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	06/26/25 08:25	06/27/25 15:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	99		70 - 130	06/26/25 08:25	06/27/25 15:01	1
Perylene-d12	80		70 - 130	06/26/25 08:25	06/27/25 15:01	1
Triphenylphosphate	112		70 - 130	06/26/25 08:25	06/27/25 15:01	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		06/26/25 10:10	07/08/25 16:22	1
2-Methylnaphthalene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Acenaphthene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Acenaphthylene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Anthracene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Benzo[a]anthracene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1

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Client Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-157093-3

Date Collected: 06/23/25 12:37

Matrix: Water

Date Received: 06/25/25 09:19

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		06/26/25 10:10	07/08/25 16:22	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Chrysene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Fluoranthene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Fluorene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Naphthalene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Phenanthrene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1
Pyrene	<0.19		0.19	ug/L		06/26/25 10:10	07/08/25 16:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		28 - 127	06/26/25 10:10	07/08/25 16:22	1
2-Fluorobiphenyl (Surr)	66		31 - 120	06/26/25 10:10	07/08/25 16:22	1
2-Fluorophenol (Surr)	42		17 - 120	06/26/25 10:10	07/08/25 16:22	1
Nitrobenzene-d5 (Surr)	71		27 - 120	06/26/25 10:10	07/08/25 16:22	1
Phenol-d6 (Surr)	26		10 - 120	06/26/25 10:10	07/08/25 16:22	1
p-Terphenyl-d14 (Surr)	89		45 - 120	06/26/25 10:10	07/08/25 16:22	1

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	06/26/25 10:10	07/10/25 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	78		33 - 139	06/26/25 10:10	07/10/25 13:41	1
2-Fluorobiphenyl (Surr)	74		33 - 126	06/26/25 10:10	07/10/25 13:41	1
2-Fluorophenol (Surr)	48		12 - 120	06/26/25 10:10	07/10/25 13:41	1
Nitrobenzene-d5 (Surr)	78		36 - 120	06/26/25 10:10	07/10/25 13:41	1
Phenol-d6 (Surr)	31		10 - 120	06/26/25 10:10	07/10/25 13:41	1
p-Terphenyl-d14 (Surr)	93		47 - 131	06/26/25 10:10	07/10/25 13:41	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			06/28/25 15:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		38 - 134		06/28/25 15:14	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		06/30/25 09:17	07/06/25 06:57	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		06/30/25 09:17	07/06/25 06:57	1
C8-C18	<25		25	ug/L		06/30/25 09:17	07/06/25 06:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	105		60 - 130	06/30/25 09:17	07/06/25 06:57	1

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Client Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-157093-4

Date Collected: 06/23/25 12:37

Matrix: Water

Date Received: 06/25/25 09:19

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			06/28/25 20:26	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	77		38 - 134				06/28/25 20:26	1	

Action Limit Summary

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-157093-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59		ug/L	400	0.59	525.2	Total/NA
Endrin	<0.0098		ug/L	2	0.0098	525.2	Total/NA
Heptachlor	<0.0098		ug/L	0.4	0.0098	525.2	Total/NA
Heptachlor epoxide (isomer B)	0.014		ug/L	0.2	0.0098	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0098		ug/L	0.2	0.0098	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-157093-3

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	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59		ug/L	400	0.59	525.2	Total/NA
Endrin	<0.0098		ug/L	2	0.0098	525.2	Total/NA
Heptachlor	<0.0098		ug/L	0.4	0.0098	525.2	Total/NA
Heptachlor epoxide (isomer B)	0.012		ug/L	0.2	0.0098	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0098		ug/L	0.2	0.0098	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Surrogate Summary

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

Job ID: 380-157093-1
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)
380-157074-B-1-A MS	Matrix Spike	95	94	114
380-157083-B-1-A DU	Duplicate	96	90	111
380-157093-1	Ka'amilo Wells Pump 1	94	86	110
380-157093-3	Ka'amilo Wells Pump 2	99	80	112
LCS 380-159889/23-A	Lab Control Sample	93	96	111
MB 380-159889/21-A	Method Blank	93	90	110
MRL 380-159889/22-A	Lab Control Sample	96	91	112

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)
380-157093-1	Ka'amilo Wells Pump 1	92	89	58	95	37	95
380-157093-3	Ka'amilo Wells Pump 2	78	74	48	78	31	93
MB 570-589749/1-A	Method Blank	86	96	68	106	43	89

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)
380-157083-A-1-B MS	Matrix Spike	95	79	60	45	39	90
380-157083-A-1-C MSD	Matrix Spike Duplicate	105	81	60	45	39	98
380-157093-1	Ka'amilo Wells Pump 1	100	79	52	83	31	90
380-157093-3	Ka'amilo Wells Pump 2	90	66	42	71	26	89
LCS 570-589749/2-A	Lab Control Sample	108	85	70	49	45	100
LCSD 570-589749/3-A	Lab Control Sample Dup	103	84	67	46	43	95
MB 570-589749/1-A	Method Blank	107	82	57	91	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)

Eurofins Eaton Analytical Pomona

Surrogate Summary

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

Job ID: 380-157093-1
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)
380-155987-A-1 MS	Matrix Spike	88
380-155987-A-1 MSD	Matrix Spike Duplicate	88
380-157083-B-1 MS	Matrix Spike	87
380-157083-B-1 MSD	Matrix Spike Duplicate	87
380-157093-1	Ka'amilo Wells Pump 1	84
380-157093-2	TB: Ka'amilo Wells Pump 1	80
380-157093-3	Ka'amilo Wells Pump 2	79
380-157093-4	TB: Ka'amilo Wells Pump 2	77
380-157517-B-1 MS	Matrix Spike	89
380-157517-B-1 MSD	Matrix Spike Duplicate	87
LCS 570-589729/4	Lab Control Sample	90
LCS 570-590669/4	Lab Control Sample	90
LCSD 570-589729/5	Lab Control Sample Dup	88
LCSD 570-590669/5	Lab Control Sample Dup	86
MB 570-589729/6	Method Blank	78
MB 570-590669/6	Method Blank	75
MRL 570-589729/3	Lab Control Sample	78
MRL 570-590669/3	Lab Control Sample	79

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)
380-157093-1	Ka'amilo Wells Pump 1	101
380-157093-3	Ka'amilo Wells Pump 2	105
380-157517-C-1-A MS	Matrix Spike	108
380-157517-C-1-B MSD	Matrix Spike Duplicate	112
LCS 570-591116/2-A	Lab Control Sample	104
LCSD 570-591116/3-A	Lab Control Sample Dup	117
MB 570-591116/1-A	Method Blank	100
MRL 570-591116/4-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: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MB 380-159889/21-A

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 159889

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
2,4'-DDD	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
2,4'-DDE	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
2,4'-DDT	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
2-Methylnaphthalene	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
4,4'-DDD	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
4,4'-DDE	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
4,4'-DDT	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Acenaphthene	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Acenaphthylene	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Acetochlor	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Alachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
alpha-BHC	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
alpha-Chlordane	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Anthracene	<0.019		0.019	ug/L		06/26/25 08:25	06/27/25 12:57	1
Atrazine	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Benz(a)anthracene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Benzo[a]pyrene	<0.019		0.019	ug/L		06/26/25 08:25	06/27/25 12:57	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		06/26/25 08:25	06/27/25 12:57	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		06/26/25 08:25	06/27/25 12:57	1
beta-BHC	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		06/26/25 08:25	06/27/25 12:57	1
Bromacil	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Butachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Butylbenzylphthalate	<0.49		0.49	ug/L		06/26/25 08:25	06/27/25 12:57	1
Chlorobenzilate	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Chloroneb	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Chlorpyrifos	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Chrysene	<0.019		0.019	ug/L		06/26/25 08:25	06/27/25 12:57	1
delta-BHC	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		06/26/25 08:25	06/27/25 12:57	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Dieldrin	<0.0097		0.0097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Diethylphthalate	<0.49		0.49	ug/L		06/26/25 08:25	06/27/25 12:57	1
Dimethylphthalate	<0.49		0.49	ug/L		06/26/25 08:25	06/27/25 12:57	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		06/26/25 08:25	06/27/25 12:57	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Endosulfan sulfate	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Endrin	<0.0097		0.0097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Endrin aldehyde	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
EPTC	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1

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QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MB 380-159889/21-A

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 159889

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Fluorene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
gamma-Chlordane	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Heptachlor	<0.0097		0.0097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Hexachlorobenzene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Isophorone	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Lindane	<0.0097		0.0097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Malathion	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Methoxychlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Metolachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Molinate	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Naphthalene	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Parathion	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Phenanthrene	<0.039		0.039	ug/L		06/26/25 08:25	06/27/25 12:57	1
Propachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Pyrene	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Simazine	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Terbacil	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Terbutylazine	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Thiobencarb	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		06/26/25 08:25	06/27/25 12:57	1
trans-Nonachlor	<0.049		0.049	ug/L		06/26/25 08:25	06/27/25 12:57	1
Trifluralin	<0.097		0.097	ug/L		06/26/25 08:25	06/27/25 12:57	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Cyclopentene, 1,2,3,4,5-pentamethyl-	0.658	T J N	ug/L		2.53	1000154-28-6	06/26/25 08:25	06/27/25 12:57	1
Unknown	0.850	T J	ug/L		2.65	N/A	06/26/25 08:25	06/27/25 12:57	1
Decane	2.15	T J N	ug/L		2.78	124-18-5	06/26/25 08:25	06/27/25 12:57	1
9-Octadecenamide, (Z)-	2.81	T J N	ug/L		7.92	301-02-0	06/26/25 08:25	06/27/25 12:57	1
13-Docosenamide, (Z)-	1.13	T J N	ug/L		10.48	112-84-5	06/26/25 08:25	06/27/25 12:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	93		70 - 130	06/26/25 08:25	06/27/25 12:57	1
Perylene-d12	90		70 - 130	06/26/25 08:25	06/27/25 12:57	1
Triphenylphosphate	110		70 - 130	06/26/25 08:25	06/27/25 12:57	1

Lab Sample ID: LCS 380-159889/23-A

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.95	1.85		ug/L		95	70 - 130
2,4'-DDD	1.95	2.19		ug/L		112	70 - 130

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QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCS 380-159889/23-A

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDE	1.95	2.04		ug/L		105	70 - 130
2,4'-DDT	1.95	1.96		ug/L		101	70 - 130
2,4-Dinitrotoluene	1.95	2.14		ug/L		110	70 - 130
2,6-Dinitrotoluene	1.95	1.85		ug/L		95	70 - 130
2-Methylnaphthalene	1.95	1.85		ug/L		95	70 - 130
4,4'-DDD	1.95	2.18		ug/L		112	70 - 130
4,4'-DDE	1.95	2.09		ug/L		108	70 - 130
4,4'-DDT	1.95	1.96		ug/L		101	70 - 130
Acenaphthene	1.95	1.86		ug/L		96	70 - 130
Acenaphthylene	1.95	1.98		ug/L		102	70 - 130
Acetochlor	1.95	2.03		ug/L		104	70 - 130
Alachlor	1.95	2.03		ug/L		104	70 - 130
alpha-BHC	1.95	1.92		ug/L		99	70 - 130
alpha-Chlordane	1.95	2.25		ug/L		116	70 - 130
Anthracene	1.95	2.03		ug/L		104	70 - 130
Atrazine	1.95	2.14		ug/L		110	70 - 130
Benz(a)anthracene	1.95	2.07		ug/L		106	70 - 130
Benzo[a]pyrene	1.95	2.14		ug/L		110	70 - 130
Benzo[b]fluoranthene	1.95	2.07		ug/L		106	70 - 130
Benzo[g,h,i]perylene	1.95	1.84		ug/L		95	70 - 130
Benzo[k]fluoranthene	1.95	2.12		ug/L		109	70 - 130
beta-BHC	1.95	1.92		ug/L		98	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	1.77		ug/L		91	70 - 130
Bromacil	1.95	2.05		ug/L		105	70 - 130
Butachlor	1.95	1.99		ug/L		102	70 - 130
Butylbenzylphthalate	1.95	1.99		ug/L		102	70 - 130
Chlorobenzilate	1.95	1.89		ug/L		97	70 - 130
Chloroneb	1.95	1.92		ug/L		99	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.10		ug/L		108	70 - 130
Chlorpyrifos	1.95	2.13		ug/L		109	70 - 130
Chrysene	1.95	1.99		ug/L		102	70 - 130
delta-BHC	1.95	1.89		ug/L		97	70 - 130
Di(2-ethylhexyl)adipate	1.95	2.00		ug/L		103	70 - 130
Dibenz(a,h)anthracene	1.95	1.92		ug/L		99	70 - 130
Diclorvos (DDVP)	1.95	1.99		ug/L		102	70 - 130
Dieldrin	1.95	1.93		ug/L		99	70 - 130
Diethylphthalate	1.95	2.02		ug/L		104	70 - 130
Dimethylphthalate	1.95	1.99		ug/L		102	70 - 130
Di-n-butyl phthalate	3.89	4.45		ug/L		114	70 - 130
Di-n-octyl phthalate	1.95	1.88		ug/L		96	70 - 130
Endosulfan I (Alpha)	1.95	1.89		ug/L		97	70 - 130
Endosulfan II (Beta)	1.95	1.87		ug/L		96	70 - 130
Endosulfan sulfate	1.95	1.84		ug/L		94	70 - 130
Endrin	1.95	2.16		ug/L		111	70 - 130
Endrin aldehyde	1.95	2.03		ug/L		105	60 - 130
EPTC	1.95	1.97		ug/L		101	70 - 130
Fluoranthene	1.95	2.14		ug/L		110	70 - 130
Fluorene	1.95	1.97		ug/L		101	70 - 130
gamma-Chlordane	1.95	2.23		ug/L		115	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCS 380-159889/23-A

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor	1.95	2.16		ug/L		111	70 - 130
Heptachlor epoxide (isomer B)	1.95	2.12		ug/L		109	70 - 130
Hexachlorobenzene	1.95	2.01		ug/L		103	70 - 130
Hexachlorocyclopentadiene	1.95	2.28		ug/L		117	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	2.08		ug/L		107	70 - 130
Isophorone	1.95	2.09		ug/L		108	70 - 130
Lindane	1.95	2.06		ug/L		106	70 - 130
Malathion	1.95	2.03		ug/L		104	70 - 130
Methoxychlor	1.95	2.12		ug/L		109	70 - 130
Metolachlor	1.95	2.13		ug/L		109	70 - 130
Molinate	1.95	2.03		ug/L		104	70 - 130
Naphthalene	1.95	1.86		ug/L		96	70 - 130
Parathion	1.95	1.88		ug/L		96	70 - 130
Pendimethalin (Penoxaline)	1.95	2.22		ug/L		114	70 - 130
Phenanthrene	1.95	1.87		ug/L		96	70 - 130
Propachlor	1.95	1.98		ug/L		102	70 - 130
Pyrene	1.95	2.18		ug/L		112	70 - 130
Simazine	1.95	1.98		ug/L		102	70 - 130
Terbacil	1.95	2.07		ug/L		106	70 - 130
Terbutylazine	1.95	2.06		ug/L		106	70 - 130
Thiobencarb	1.95	2.09		ug/L		108	70 - 130
trans-Nonachlor	1.95	2.27		ug/L		117	70 - 130
Trifluralin	1.95	2.10		ug/L		108	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	93		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	111		70 - 130

Lab Sample ID: MRL 380-159889/22-A

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159889

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0972	0.106		ug/L		109	50 - 150
2,4'-DDD	0.0972	0.0914	J	ug/L		94	50 - 150
2,4'-DDE	0.0972	0.0914	J	ug/L		94	50 - 150
2,4'-DDT	0.0972	0.114		ug/L		117	50 - 150
2,4-Dinitrotoluene	0.0972	0.115		ug/L		118	50 - 150
2,6-Dinitrotoluene	0.0972	0.113		ug/L		116	50 - 150
2-Methylnaphthalene	0.0972	0.0980		ug/L		101	50 - 150
4,4'-DDD	0.0972	0.100		ug/L		103	50 - 150
4,4'-DDE	0.0972	0.0874	J	ug/L		90	50 - 150
4,4'-DDT	0.0972	0.122		ug/L		126	50 - 150
Acenaphthene	0.0972	0.0887	J	ug/L		91	50 - 150
Acenaphthylene	0.0972	0.0878	J	ug/L		90	50 - 150
Acetochlor	0.0972	0.106		ug/L		109	50 - 150
Alachlor	0.0486	0.0497		ug/L		102	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MRL 380-159889/22-A

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159889

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
alpha-BHC	0.0972	0.0896	J	ug/L		92	50 - 150
alpha-Chlordane	0.0243	0.0280	J	ug/L		115	50 - 150
Anthracene	0.0194	0.0215		ug/L		110	50 - 150
Atrazine	0.0486	0.0566		ug/L		116	50 - 150
Benz(a)anthracene	0.0486	0.0557		ug/L		115	50 - 150
Benzo[a]pyrene	0.0194	0.0234		ug/L		120	50 - 150
Benzo[b]fluoranthene	0.0194	0.0244		ug/L		125	50 - 150
Benzo[g,h,i]perylene	0.0486	0.0520		ug/L		107	50 - 150
Benzo[k]fluoranthene	0.0194	0.0241		ug/L		124	50 - 150
beta-BHC	0.0972	0.0996		ug/L		102	50 - 150
Bis(2-ethylhexyl) phthalate	0.583	0.553	J	ug/L		95	50 - 150
Bromacil	0.0972	0.125		ug/L		129	50 - 150
Butachlor	0.0486	0.0565		ug/L		116	50 - 150
Butylbenzylphthalate	0.486	0.528		ug/L		109	50 - 150
Chlorobenzilate	0.0972	0.106		ug/L		109	50 - 150
Chloroneb	0.0972	0.0970		ug/L		100	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0972	0.0834	J	ug/L		86	50 - 150
Chlorpyrifos	0.0486	0.0475	J	ug/L		98	50 - 150
Chrysene	0.0194	0.0218		ug/L		112	50 - 150
delta-BHC	0.0972	0.0895	J	ug/L		92	50 - 150
Di(2-ethylhexyl)adipate	0.583	0.618		ug/L		106	50 - 150
Dibenz(a,h)anthracene	0.0486	0.0528		ug/L		109	50 - 150
Diclorvos (DDVP)	0.0486	0.0539		ug/L		111	50 - 150
Dieldrin	0.00972	0.0104		ug/L		107	50 - 150
Diethylphthalate	0.486	0.498		ug/L		102	50 - 150
Dimethylphthalate	0.486	0.471	J	ug/L		97	50 - 150
Di-n-butyl phthalate	0.486	0.584	J	ug/L		120	49 - 243
Di-n-octyl phthalate	0.0972	0.106		ug/L		109	50 - 150
Endosulfan I (Alpha)	0.0972	0.0772	J	ug/L		79	50 - 150
Endosulfan II (Beta)	0.0972	0.0991		ug/L		102	50 - 150
Endosulfan sulfate	0.0972	0.112		ug/L		115	50 - 150
Endrin	0.00972	0.0131		ug/L		135	50 - 150
Endrin aldehyde	0.0972	0.124		ug/L		127	50 - 150
EPTC	0.0972	0.0946	J	ug/L		97	50 - 150
Fluoranthene	0.0972	0.0955	J	ug/L		98	50 - 150
Fluorene	0.0486	<0.049		ug/L		95	50 - 150
gamma-Chlordane	0.0243	0.0219	J	ug/L		90	50 - 150
Heptachlor	0.00972	0.00940	J	ug/L		97	50 - 150
Heptachlor epoxide (isomer B)	0.00972	0.0101		ug/L		104	50 - 150
Hexachlorobenzene	0.0486	0.0432	J	ug/L		89	50 - 150
Hexachlorocyclopentadiene	0.0486	0.0459	J	ug/L		94	50 - 150
Indeno[1,2,3-cd]pyrene	0.0486	0.0587		ug/L		121	50 - 150
Isophorone	0.0972	0.120		ug/L		123	50 - 150
Lindane	0.00972	0.0110		ug/L		113	50 - 150
Malathion	0.0972	0.110		ug/L		113	50 - 150
Methoxychlor	0.0486	0.0589		ug/L		121	50 - 150
Metolachlor	0.0486	0.0556		ug/L		114	50 - 150
Molinate	0.0972	0.0986		ug/L		101	50 - 150
Naphthalene	0.0972	0.0909	J	ug/L		94	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MRL 380-159889/22-A

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 159889

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Parathion	0.0972	0.103		ug/L		105	50 - 150
Pendimethalin (Penoxaline)	0.0972	0.124		ug/L		128	50 - 150
Phenanthrene	0.0389	0.0382	J	ug/L		98	50 - 150
Propachlor	0.0486	0.0532		ug/L		109	50 - 150
Pyrene	0.0486	0.0488	J	ug/L		100	50 - 150
Simazine	0.0486	0.0567		ug/L		117	50 - 150
Terbacil	0.0972	0.126		ug/L		129	50 - 150
Terbutylazine	0.0972	0.108		ug/L		111	50 - 150
Thiobencarb	0.0972	0.0955	J	ug/L		98	50 - 150
trans-Nonachlor	0.0243	<0.025		ug/L		99	50 - 150
Trifluralin	0.0972	0.120		ug/L		124	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	91		70 - 130
Triphenylphosphate	112		70 - 130

Lab Sample ID: 380-157074-B-1-A MS

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 159889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.099		1.97	1.89		ug/L		95	70 - 130
2,4'-DDD	<0.099		1.97	2.25		ug/L		114	70 - 130
2,4'-DDE	<0.099		1.97	2.08		ug/L		106	70 - 130
2,4'-DDT	<0.099		1.97	2.10		ug/L		106	70 - 130
2,4-Dinitrotoluene	<0.099		1.97	2.39		ug/L		121	70 - 130
2,6-Dinitrotoluene	<0.099		1.97	2.01		ug/L		102	70 - 130
2-Methylnaphthalene	<0.099		1.97	1.91		ug/L		97	70 - 130
4,4'-DDD	<0.099		1.97	2.24		ug/L		114	70 - 130
4,4'-DDE	<0.099		1.97	2.16		ug/L		110	70 - 130
4,4'-DDT	<0.099		1.97	2.06		ug/L		105	70 - 130
Acenaphthene	<0.099		1.97	1.91		ug/L		97	70 - 130
Acenaphthylene	<0.099		1.97	2.07		ug/L		105	70 - 130
Acetochlor	<0.099		1.97	2.10		ug/L		106	70 - 130
Alachlor	<0.049		1.97	2.10		ug/L		107	70 - 130
alpha-BHC	<0.099		1.97	1.99		ug/L		101	70 - 130
alpha-Chlordane	<0.049		1.97	2.31		ug/L		117	70 - 130
Anthracene	<0.020	F1	1.97	0.855	F1	ug/L		43	70 - 130
Atrazine	<0.049		1.97	2.17		ug/L		110	70 - 130
Benz(a)anthracene	<0.049		1.97	1.88		ug/L		95	70 - 130
Benzo[a]pyrene	<0.020		1.97	1.70		ug/L		86	70 - 130
Benzo[b]fluoranthene	<0.020		1.97	2.15		ug/L		109	70 - 130
Benzo[g,h,i]perylene	<0.049		1.97	1.82		ug/L		92	70 - 130
Benzo[k]fluoranthene	<0.020		1.97	2.09		ug/L		106	70 - 130
beta-BHC	<0.099		1.97	2.03		ug/L		103	70 - 130
Bis(2-ethylhexyl) phthalate	<0.59		1.97	1.87		ug/L		95	70 - 130
Bromacil	<0.099		1.97	2.24		ug/L		114	70 - 130

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QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-157074-B-1-A MS

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 159889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Butachlor	<0.049		1.97	2.10		ug/L		106	70 - 130
Butylbenzylphthalate	<0.49		1.97	2.04		ug/L		104	70 - 130
Chlorobenzilate	<0.099		1.97	1.99		ug/L		101	70 - 130
Chloroneb	<0.099		1.97	2.00		ug/L		102	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.099		1.97	2.26		ug/L		115	70 - 130
Chlorpyrifos	<0.049		1.97	2.18		ug/L		111	70 - 130
Chrysene	<0.020		1.97	1.98		ug/L		101	70 - 130
delta-BHC	<0.099		1.97	1.91		ug/L		97	70 - 130
Di(2-ethylhexyl)adipate	<0.59		1.97	2.11		ug/L		107	70 - 130
Dibenz(a,h)anthracene	<0.049		1.97	1.95		ug/L		99	70 - 130
Diclorvos (DDVP)	<0.049		1.97	2.12		ug/L		108	70 - 130
Dieldrin	<0.0099		1.97	2.00		ug/L		102	70 - 130
Diethylphthalate	<0.49		1.97	2.14		ug/L		109	70 - 130
Dimethylphthalate	<0.49		1.97	2.08		ug/L		106	70 - 130
Di-n-butyl phthalate	<0.99		3.94	4.71		ug/L		113	70 - 130
Di-n-octyl phthalate	<0.099		1.97	1.97		ug/L		100	70 - 130
Endosulfan I (Alpha)	<0.099		1.97	1.98		ug/L		101	70 - 130
Endosulfan II (Beta)	<0.099		1.97	1.96		ug/L		100	70 - 130
Endosulfan sulfate	<0.099		1.97	1.92		ug/L		97	70 - 130
Endrin	<0.0099		1.97	2.15		ug/L		109	70 - 130
Endrin aldehyde	<0.099		1.97	1.73		ug/L		88	60 - 130
EPTC	<0.099		1.97	2.02		ug/L		103	70 - 130
Fluoranthene	<0.099		1.97	2.18		ug/L		111	70 - 130
Fluorene	<0.049		1.97	2.03		ug/L		103	70 - 130
gamma-Chlordane	<0.049		1.97	2.29		ug/L		116	70 - 130
Heptachlor	<0.0099		1.97	2.23		ug/L		113	70 - 130
Heptachlor epoxide (isomer B)	<0.0099		1.97	2.20		ug/L		111	70 - 130
Hexachlorobenzene	<0.049		1.97	2.06		ug/L		105	70 - 130
Hexachlorocyclopentadiene	<0.049		1.97	2.43		ug/L		122	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.97	2.15		ug/L		109	70 - 130
Isophorone	<0.099		1.97	2.17		ug/L		110	70 - 130
Lindane	<0.0099		1.97	2.13		ug/L		108	70 - 130
Malathion	<0.099		1.97	2.11		ug/L		107	70 - 130
Methoxychlor	<0.049		1.97	2.23		ug/L		113	70 - 130
Metolachlor	<0.049		1.97	2.20		ug/L		112	70 - 130
Molinate	<0.099		1.97	2.14		ug/L		109	70 - 130
Naphthalene	<0.099		1.97	1.91		ug/L		97	70 - 130
Parathion	<0.099		1.97	2.02		ug/L		102	70 - 130
Pendimethalin (Penoxaline)	<0.099		1.97	2.42		ug/L		123	70 - 130
Phenanthrene	<0.039		1.97	1.88		ug/L		95	70 - 130
Propachlor	<0.049		1.97	2.13		ug/L		108	70 - 130
Pyrene	<0.049		1.97	2.19		ug/L		111	70 - 130
Simazine	<0.049		1.97	2.05		ug/L		104	70 - 130
Terbacil	<0.099		1.97	2.11		ug/L		107	70 - 130
Terbutylazine	<0.099		1.97	2.13		ug/L		108	70 - 130
Thiobencarb	<0.099		1.97	2.19		ug/L		111	70 - 130
trans-Nonachlor	<0.049		1.97	2.38		ug/L		121	70 - 130
Trifluralin	<0.099		1.97	2.31		ug/L		117	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-157074-B-1-A MS

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 159889

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
2-Nitro-m-xylene	95		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	114		70 - 130

Lab Sample ID: 380-157083-B-1-A DU

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 159889

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
1-Methylnaphthalene	<0.098		<0.098		ug/L		NC	20
2,4'-DDD	<0.098		<0.098		ug/L		NC	20
2,4'-DDE	<0.098		<0.098		ug/L		NC	20
2,4'-DDT	<0.098		<0.098		ug/L		NC	20
2,4-Dinitrotoluene	<0.098		<0.098		ug/L		NC	20
2,6-Dinitrotoluene	<0.098		<0.098		ug/L		NC	20
2-Methylnaphthalene	<0.098		<0.098		ug/L		NC	20
4,4'-DDD	<0.098		<0.098		ug/L		NC	20
4,4'-DDE	<0.098		<0.098		ug/L		NC	20
4,4'-DDT	<0.098		<0.098		ug/L		NC	20
Acenaphthene	<0.098		<0.098		ug/L		NC	20
Acenaphthylene	<0.098		<0.098		ug/L		NC	20
Acetochlor	<0.098		<0.098		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.098		<0.098		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.020		<0.020		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		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.020		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.020		<0.020		ug/L		NC	20
beta-BHC	<0.098		<0.098		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.59		ug/L		NC	20
Bromacil	<0.098		<0.098		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		ug/L		NC	20
Chlorobenzilate	<0.098		<0.098		ug/L		NC	20
Chloroneb	<0.098		<0.098		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.098		<0.098		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.020		<0.020		ug/L		NC	20
delta-BHC	<0.098		<0.098		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.59		<0.59		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	<0.0098		<0.0098		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20

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QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-157083-B-1-A DU

Matrix: Water

Analysis Batch: 160099

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 159889

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.98		<0.98		ug/L		NC	20
Di-n-octyl phthalate	<0.098		<0.098		ug/L		NC	20
Endosulfan I (Alpha)	<0.098		<0.098		ug/L		NC	20
Endosulfan II (Beta)	<0.098		<0.098		ug/L		NC	20
Endosulfan sulfate	<0.098		<0.098		ug/L		NC	20
Endrin	<0.0098		<0.0098		ug/L		NC	20
Endrin aldehyde	<0.098		<0.098		ug/L		NC	20
EPTC	<0.098		<0.098		ug/L		NC	20
Fluoranthene	<0.098		<0.098		ug/L		NC	20
Fluorene	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20
Heptachlor	<0.0098		<0.0098		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0098		<0.0098		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	<0.098		<0.098		ug/L		NC	20
Lindane	<0.0098		<0.0098		ug/L		NC	20
Malathion	<0.098		<0.098		ug/L		NC	20
Methoxychlor	<0.049		<0.049		ug/L		NC	20
Metolachlor	<0.049		<0.049		ug/L		NC	20
Molinate	<0.098		<0.098		ug/L		NC	20
Naphthalene	<0.098		<0.098		ug/L		NC	20
Parathion	<0.098		<0.098		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.098		<0.098		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	<0.098		<0.098		ug/L		NC	20
Terbutylazine	<0.098		<0.098		ug/L		NC	20
Thiobencarb	<0.098		<0.098		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.20		<0.20		ug/L		NC	20
trans-Nonachlor	<0.049		<0.049		ug/L		NC	20
Trifluralin	<0.098		<0.098		ug/L		NC	20

Surrogate	DU %Recovery	DU Qualifier	Limits
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	90		70 - 130
Triphenylphosphate	111		70 - 130

QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MB 570-589749/1-A
Matrix: Water
Analysis Batch: 595337

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589749

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>MB MB 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>06/26/25 10:10</i>	<i>07/10/25 12:56</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
2,4,6-Tribromophenol (Surr)	86		33 - 139				06/26/25 10:10	07/10/25 12:56	1
2-Fluorobiphenyl (Surr)	96		33 - 126				06/26/25 10:10	07/10/25 12:56	1
2-Fluorophenol (Surr)	68		12 - 120				06/26/25 10:10	07/10/25 12:56	1
Nitrobenzene-d5 (Surr)	106		36 - 120				06/26/25 10:10	07/10/25 12:56	1
Phenol-d6 (Surr)	43		10 - 120				06/26/25 10:10	07/10/25 12:56	1
p-Terphenyl-d14 (Surr)	89		47 - 131				06/26/25 10:10	07/10/25 12:56	1

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

Lab Sample ID: MB 570-589749/1-A
Matrix: Water
Analysis Batch: 594207

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589749

<i>Analyte</i>	<i>Result</i>	<i>MB MB 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		06/26/25 10:10	07/08/25 13:05	1
2-Methylnaphthalene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Acenaphthene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Acenaphthylene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Anthracene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Benzo[a]anthracene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Benzo[a]pyrene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Chrysene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Fluoranthene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Fluorene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Naphthalene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Phenanthrene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
Pyrene	<0.20		0.20	ug/L		06/26/25 10:10	07/08/25 13:05	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>			<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
2,4,6-Tribromophenol (Surr)	107		28 - 127			06/26/25 10:10	07/08/25 13:05	1
2-Fluorobiphenyl (Surr)	82		31 - 120			06/26/25 10:10	07/08/25 13:05	1
2-Fluorophenol (Surr)	57		17 - 120			06/26/25 10:10	07/08/25 13:05	1
Nitrobenzene-d5 (Surr)	91		27 - 120			06/26/25 10:10	07/08/25 13:05	1
Phenol-d6 (Surr)	35		10 - 120			06/26/25 10:10	07/08/25 13:05	1
p-Terphenyl-d14 (Surr)	84		45 - 120			06/26/25 10:10	07/08/25 13:05	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCS 570-589749/2-A

Matrix: Water

Analysis Batch: 594207

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 589749

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	100	47.2		ug/L		47	47 - 120
2-Methylnaphthalene	100	46.1		ug/L		46	43 - 120
Acenaphthene	100	84.9		ug/L		85	60 - 132
Acenaphthylene	100	83.8		ug/L		84	54 - 126
Anthracene	100	83.5		ug/L		83	43 - 120
Benzo[a]anthracene	100	98.8		ug/L		99	42 - 133
Benzo[a]pyrene	100	105		ug/L		105	32 - 148
Benzo[b]fluoranthene	100	105		ug/L		105	42 - 140
Benzo[g,h,i]perylene	100	99.4		ug/L		99	1 - 195
Benzo[k]fluoranthene	100	97.0		ug/L		97	25 - 146
Chrysene	100	93.9		ug/L		94	44 - 140
Dibenz(a,h)anthracene	100	104		ug/L		104	1 - 200
Fluoranthene	100	90.4		ug/L		90	43 - 121
Fluorene	100	86.5		ug/L		86	70 - 120
Indeno[1,2,3-cd]pyrene	100	104		ug/L		104	1 - 151
Naphthalene	100	41.3		ug/L		41	36 - 120
Phenanthrene	100	85.0		ug/L		85	65 - 120
Pyrene	100	97.2		ug/L		97	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	108		28 - 127
2-Fluorobiphenyl (Surr)	85		31 - 120
2-Fluorophenol (Surr)	70		17 - 120
Nitrobenzene-d5 (Surr)	49		27 - 120
Phenol-d6 (Surr)	45		10 - 120
p-Terphenyl-d14 (Surr)	100		45 - 120

Lab Sample ID: LCSD 570-589749/3-A

Matrix: Water

Analysis Batch: 594207

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 589749

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	100	45.8	*	ug/L		46	47 - 120	3	20
2-Methylnaphthalene	100	45.1		ug/L		45	43 - 120	2	20
Acenaphthene	100	82.3		ug/L		82	60 - 132	3	29
Acenaphthylene	100	81.9		ug/L		82	54 - 126	2	45
Anthracene	100	80.6		ug/L		81	43 - 120	3	40
Benzo[a]anthracene	100	94.9		ug/L		95	42 - 133	4	32
Benzo[a]pyrene	100	104		ug/L		104	32 - 148	1	43
Benzo[b]fluoranthene	100	102		ug/L		102	42 - 140	3	43
Benzo[g,h,i]perylene	100	97.1		ug/L		97	1 - 195	2	61
Benzo[k]fluoranthene	100	93.6		ug/L		94	25 - 146	4	38
Chrysene	100	91.1		ug/L		91	44 - 140	3	53
Dibenz(a,h)anthracene	100	99.9		ug/L		100	1 - 200	4	75
Fluoranthene	100	86.6		ug/L		87	43 - 121	4	40
Fluorene	100	83.5		ug/L		84	70 - 120	3	23
Indeno[1,2,3-cd]pyrene	100	101		ug/L		101	1 - 151	3	60
Naphthalene	100	40.7		ug/L		41	36 - 120	1	39

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCSD 570-589749/3-A

Matrix: Water

Analysis Batch: 594207

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 589749

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	100	82.8		ug/L		83	65 - 120	3	24
Pyrene	100	92.0		ug/L		92	70 - 120	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	103		28 - 127
2-Fluorobiphenyl (Surr)	84		31 - 120
2-Fluorophenol (Surr)	67		17 - 120
Nitrobenzene-d5 (Surr)	46		27 - 120
Phenol-d6 (Surr)	43		10 - 120
p-Terphenyl-d14 (Surr)	95		45 - 120

Lab Sample ID: 380-157083-A-1-B MS

Matrix: Water

Analysis Batch: 594207

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 589749

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.20	*-	99.5	43.2		ug/L		43	36 - 120
2-Methylnaphthalene	<0.20		99.5	42.2		ug/L		42	32 - 124
Acenaphthene	<0.20		99.5	74.8		ug/L		75	47 - 145
Acenaphthylene	<0.20		99.5	75.1		ug/L		75	33 - 145
Anthracene	<0.20		99.5	73.1		ug/L		73	27 - 133
Benzo[a]anthracene	<0.20		99.5	86.6		ug/L		87	33 - 143
Benzo[a]pyrene	<0.20		99.5	91.0		ug/L		91	17 - 163
Benzo[b]fluoranthene	<0.20		99.5	91.2		ug/L		92	24 - 159
Benzo[g,h,i]perylene	<0.20		99.5	86.7		ug/L		87	1 - 219
Benzo[k]fluoranthene	<0.20		99.5	83.2		ug/L		84	11 - 162
Chrysene	<0.20		99.5	82.6		ug/L		83	17 - 168
Dibenz(a,h)anthracene	<0.20		99.5	91.5		ug/L		92	1 - 227
Fluoranthene	<0.20		99.5	78.1		ug/L		78	26 - 137
Fluorene	<0.20		99.5	76.1		ug/L		76	59 - 121
Indeno[1,2,3-cd]pyrene	<0.20		99.5	90.9		ug/L		91	1 - 171
Naphthalene	<0.20		99.5	39.3		ug/L		39	21 - 133
Phenanthrene	<0.20		99.5	74.9		ug/L		75	54 - 120
Pyrene	<0.20		99.5	85.3		ug/L		86	52 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	95		28 - 127
2-Fluorobiphenyl (Surr)	79		31 - 120
2-Fluorophenol (Surr)	60		17 - 120
Nitrobenzene-d5 (Surr)	45		27 - 120
Phenol-d6 (Surr)	39		10 - 120
p-Terphenyl-d14 (Surr)	90		45 - 120

QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-157083-A-1-C MSD

Matrix: Water

Analysis Batch: 594207

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 589749

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	<0.20	*-	97.7	43.6		ug/L		45	36 - 120	1	30
2-Methylnaphthalene	<0.20		97.7	42.7		ug/L		44	32 - 124	1	30
Acenaphthene	<0.20		97.7	79.6		ug/L		81	47 - 145	6	48
Acenaphthylene	<0.20		97.7	79.5		ug/L		81	33 - 145	6	74
Anthracene	<0.20		97.7	79.3		ug/L		81	27 - 133	8	66
Benzo[a]anthracene	<0.20		97.7	96.1		ug/L		98	33 - 143	10	53
Benzo[a]pyrene	<0.20		97.7	103		ug/L		105	17 - 163	12	72
Benzo[b]fluoranthene	<0.20		97.7	103		ug/L		105	24 - 159	12	71
Benzo[g,h,i]perylene	<0.20		97.7	96.5		ug/L		99	1 - 219	11	97
Benzo[k]fluoranthene	<0.20		97.7	94.3		ug/L		96	11 - 162	12	63
Chrysene	<0.20		97.7	92.4		ug/L		95	17 - 168	11	87
Dibenz(a,h)anthracene	<0.20		97.7	102		ug/L		104	1 - 227	11	126
Fluoranthene	<0.20		97.7	85.5		ug/L		87	26 - 137	9	66
Fluorene	<0.20		97.7	81.5		ug/L		83	59 - 121	7	38
Indeno[1,2,3-cd]pyrene	<0.20		97.7	102		ug/L		105	1 - 171	12	99
Naphthalene	<0.20		97.7	39.1		ug/L		40	21 - 133	1	65
Phenanthrene	<0.20		97.7	81.9		ug/L		84	54 - 120	9	39
Pyrene	<0.20		97.7	94.4		ug/L		97	52 - 120	10	49

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	105		28 - 127
2-Fluorobiphenyl (Surr)	81		31 - 120
2-Fluorophenol (Surr)	60		17 - 120
Nitrobenzene-d5 (Surr)	45		27 - 120
Phenol-d6 (Surr)	39		10 - 120
p-Terphenyl-d14 (Surr)	98		45 - 120

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

Lab Sample ID: MB 570-589729/6

Matrix: Water

Analysis Batch: 589729

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			06/26/25 12:45	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		38 - 134				06/26/25 12:45	1

Lab Sample ID: LCS 570-589729/4

Matrix: Water

Analysis Batch: 589729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	400	409		ug/L		102	78 - 120

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QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCS 570-589729/4

Matrix: Water

Analysis Batch: 589729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		38 - 134

Lab Sample ID: LCSD 570-589729/5

Matrix: Water

Analysis Batch: 589729

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	384		ug/L		96	78 - 120	6	10

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		38 - 134

Lab Sample ID: MRL 570-589729/3

Matrix: Water

Analysis Batch: 589729

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	11.8		ug/L		118	50 - 150		

	MRL	MRL	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	78		38 - 134

Lab Sample ID: 380-155987-A-1 MS

Matrix: Water

Analysis Batch: 589729

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	437		ug/L		109	68 - 122		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		38 - 134

Lab Sample ID: 380-155987-A-1 MSD

Matrix: Water

Analysis Batch: 589729

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	445		ug/L		111	68 - 122	2	18

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		38 - 134

QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: MB 570-590669/6

Matrix: Water

Analysis Batch: 590669

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			06/28/25 13:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		38 - 134				06/28/25 13:35	1

Lab Sample ID: LCS 570-590669/4

Matrix: Water

Analysis Batch: 590669

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	400	350		ug/L		88	78 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	90		38 - 134				

Lab Sample ID: LCSD 570-590669/5

Matrix: Water

Analysis Batch: 590669

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	344		ug/L		86	78 - 120	2	10
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	86		38 - 134						

Lab Sample ID: MRL 570-590669/3

Matrix: Water

Analysis Batch: 590669

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	11.2		ug/L		112	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
4-Bromofluorobenzene (Surr)	79		38 - 134				

Lab Sample ID: 380-157083-B-1 MS

Matrix: Water

Analysis Batch: 590669

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	<10		400	340		ug/L		85	68 - 122
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	87		38 - 134						

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: 380-157083-B-1 MSD

Matrix: Water

Analysis Batch: 590669

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	329		ug/L		82	68 - 122	3	18
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	87		38 - 134								

Lab Sample ID: 380-157517-B-1 MS

Matrix: Water

Analysis Batch: 590669

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)	<10		400	333		ug/L		83	68 - 122		
Surrogate	MS %Recovery	MS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	89		38 - 134								

Lab Sample ID: 380-157517-B-1 MSD

Matrix: Water

Analysis Batch: 590669

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	319		ug/L		80	68 - 122	4	18
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	87		38 - 134								

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

Lab Sample ID: MB 570-591116/1-A

Matrix: Water

Analysis Batch: 593381

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 591116

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		06/30/25 09:15	07/06/25 02:35	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		06/30/25 09:15	07/06/25 02:35	1
C8-C18	<25		25	ug/L		06/30/25 09:15	07/06/25 02:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	100		60 - 130			06/30/25 09:15	07/06/25 02:35	1

Lab Sample ID: LCS 570-591116/2-A

Matrix: Water

Analysis Batch: 593381

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 591116

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28	1600	1420		ug/L		88	56 - 127		

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

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

Lab Sample ID: LCS 570-591116/2-A

Matrix: Water

Analysis Batch: 593381

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 591116

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	104		60 - 130

Lab Sample ID: LCSD 570-591116/3-A

Matrix: Water

Analysis Batch: 593381

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 591116

Top Data: 000001										
			Spike	LCSD	LCSD					
Analyte			Added	Result	Qualifier	Unit	D	%Rec	%Rec Limits	RPD RPD Limits
C10-C28			1600	1590		ug/L		99	56 - 127	11 23

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	117		60 - 130

Lab Sample ID: MRL 570-591116/4-A

Matrix: Water

Analysis Batch: 593381

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 591116

Analysis Date: 06/06/16				Print Date: 06/11/16					
Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28			0.0200	0.0258		mg/L		129	50 - 150

	MRL	MRL	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	107		60 - 130

Lab Sample ID: 380-157517-C-1-A MS

Matrix: Water

Analysis Batch: 593381

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 591116

Analysis Date: 05/05/17				Print Date: 05/11/17						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
C10-C28	<26		1640	1520		ug/l		93	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	108		60 - 130

Lab Sample ID: 380-157517-C-1-B MSD

Matrix: Water

Analysis Batch: 593381

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 591116

Analysis Date: 06/06/17											Print Date: 06/06/17										
Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD										
	Result	Qualifier	Added	Result	Qualifier				Limits	Limits	Limits										
C10-C28	<26		1640	1600		ug/L		98	70 - 130	5	20										

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	112		60 - 130

QC Association Summary

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

GC/MS Semi VOA

Prep Batch: 159889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-157093-1	Ka'amilo Wells Pump 1	Total/NA	Water	525.2	
380-157093-3	Ka'amilo Wells Pump 2	Total/NA	Water	525.2	
MB 380-159889/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-159889/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-159889/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-157074-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-157083-B-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 160099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-157093-1	Ka'amilo Wells Pump 1	Total/NA	Water	525.2	159889
380-157093-3	Ka'amilo Wells Pump 2	Total/NA	Water	525.2	159889
MB 380-159889/21-A	Method Blank	Total/NA	Water	525.2	159889
LCS 380-159889/23-A	Lab Control Sample	Total/NA	Water	525.2	159889
MRL 380-159889/22-A	Lab Control Sample	Total/NA	Water	525.2	159889
380-157074-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	159889
380-157083-B-1-A DU	Duplicate	Total/NA	Water	525.2	159889

Prep Batch: 589749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-157093-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1	
380-157093-3	Ka'amilo Wells Pump 2	Total/NA	Water	625.1	
MB 570-589749/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-589749/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-589749/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-157083-A-1-B MS	Matrix Spike	Total/NA	Water	625.1	
380-157083-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

Analysis Batch: 594207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-157093-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1 SIM	589749
380-157093-3	Ka'amilo Wells Pump 2	Total/NA	Water	625.1 SIM	589749
MB 570-589749/1-A	Method Blank	Total/NA	Water	625.1 SIM	589749
LCS 570-589749/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	589749
LCSD 570-589749/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	589749
380-157083-A-1-B MS	Matrix Spike	Total/NA	Water	625.1 SIM	589749
380-157083-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	589749

Analysis Batch: 595337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-157093-1	Ka'amilo Wells Pump 1	Total/NA	Water	625.1	589749
380-157093-3	Ka'amilo Wells Pump 2	Total/NA	Water	625.1	589749
MB 570-589749/1-A	Method Blank	Total/NA	Water	625.1	589749

GC VOA

Analysis Batch: 589729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-157093-1	Ka'amilo Wells Pump 1	Total/NA	Water	8015B GRO LL	
380-157093-2	TB: Ka'amilo Wells Pump 1	Total/NA	Water	8015B GRO LL	
MB 570-589729/6	Method Blank	Total/NA	Water	8015B GRO LL	

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

GC VOA (Continued)

Analysis Batch: 589729 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-589729/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-589729/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-589729/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-155987-A-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-155987-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

Analysis Batch: 590669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-157093-3	Ka'amilo Wells Pump 2	Total/NA	Water	8015B GRO LL	
380-157093-4	TB: Ka'amilo Wells Pump 2	Total/NA	Water	8015B GRO LL	
MB 570-590669/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-590669/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-590669/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-590669/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-157083-B-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-157083-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	
380-157517-B-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-157517-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 591116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-157093-1	Ka'amilo Wells Pump 1	Total/NA	Water	3510C	
380-157093-3	Ka'amilo Wells Pump 2	Total/NA	Water	3510C	
MB 570-591116/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-591116/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-591116/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-591116/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-157517-C-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-157517-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 593381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-157093-1	Ka'amilo Wells Pump 1	Total/NA	Water	8015B	591116
380-157093-3	Ka'amilo Wells Pump 2	Total/NA	Water	8015B	591116
MB 570-591116/1-A	Method Blank	Total/NA	Water	8015B	591116
LCS 570-591116/2-A	Lab Control Sample	Total/NA	Water	8015B	591116
LCSD 570-591116/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	591116
MRL 570-591116/4-A	Lab Control Sample	Total/NA	Water	8015B	591116
380-157517-C-1-A MS	Matrix Spike	Total/NA	Water	8015B	591116
380-157517-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	591116

Lab Chronicle

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

Job ID: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Client Sample ID: Ka'amilo Wells Pump 1

Lab Sample ID: 380-157093-1

Date Collected: 06/23/25 11:52

Matrix: Water

Date Received: 06/25/25 09:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			159889	KRD3	EA POM	06/26/25 08:25
Total/NA	Analysis	525.2		1	160099	Q8LA	EA POM	06/27/25 14:40
Total/NA	Prep	625.1			589749	OAJ3	EET CAL 4	06/26/25 10:10
Total/NA	Analysis	625.1		1	595337	AX7Z	EET CAL 4	07/10/25 13:19
Total/NA	Prep	625.1			589749	OAJ3	EET CAL 4	06/26/25 10:10
Total/NA	Analysis	625.1 SIM		1	594207	PQS1	EET CAL 4	07/08/25 16:01
Total/NA	Analysis	8015B GRO LL		1	589729	A9VE	EET CAL 4	06/26/25 22:50
Total/NA	Prep	3510C			591116	TVD6	EET CAL 4	06/30/25 09:17
Total/NA	Analysis	8015B		1	593381	NR	EET CAL 4	07/06/25 06:35

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

Lab Sample ID: 380-157093-2

Date Collected: 06/23/25 11:52

Matrix: Water

Date Received: 06/25/25 09:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	589729	A9VE	EET CAL 4	06/26/25 23:14

Client Sample ID: Ka'amilo Wells Pump 2

Lab Sample ID: 380-157093-3

Date Collected: 06/23/25 12:37

Matrix: Water

Date Received: 06/25/25 09:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			159889	KRD3	EA POM	06/26/25 08:25
Total/NA	Analysis	525.2		1	160099	Q8LA	EA POM	06/27/25 15:01
Total/NA	Prep	625.1			589749	OAJ3	EET CAL 4	06/26/25 10:10
Total/NA	Analysis	625.1		1	595337	AX7Z	EET CAL 4	07/10/25 13:41
Total/NA	Prep	625.1			589749	OAJ3	EET CAL 4	06/26/25 10:10
Total/NA	Analysis	625.1 SIM		1	594207	PQS1	EET CAL 4	07/08/25 16:22
Total/NA	Analysis	8015B GRO LL		1	590669	W4LC	EET CAL 4	06/28/25 15:14
Total/NA	Prep	3510C			591116	TVD6	EET CAL 4	06/30/25 09:17
Total/NA	Analysis	8015B		1	593381	NR	EET CAL 4	07/06/25 06:57

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

Lab Sample ID: 380-157093-4

Date Collected: 06/23/25 12:37

Matrix: Water

Date Received: 06/25/25 09:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	590669	W4LC	EET CAL 4	06/28/25 20:26

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

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-157093-1
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	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-157093-1
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	07-31-25
Nevada	State	CA00111	07-31-25
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

Method Summary

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

Job ID: 380-157093-1
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: 380-157093-1
SDG: Weekly: Ka'amilo Wells Pump 1/Pump 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-157093-1	Ka'amilo Wells Pump 1	Water	06/23/25 11:52	06/25/25 09:19
380-157093-2	TB: Ka'amilo Wells Pump 1	Water	06/23/25 11:52	06/25/25 09:19
380-157093-3	Ka'amilo Wells Pump 2	Water	06/23/25 12:37	06/25/25 09:19
380-157093-4	TB: Ka'amilo Wells Pump 2	Water	06/23/25 12:37	06/25/25 09:19

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

Environment Testing

Client Information						Sampler bailey		Lab PM. Arada, Rachele		Carrier Tracking No(s):		COC No: 380-28005-2757 1							
Client Contact: Mr Kirk Iwamoto						Phone: +1 808 748 5840		E-Mail: Rachele.Arada@et.eurofinsus.com		State of Origin:		Page: Page 1 of 1							
Company City & County of Honolulu						PWSID:		Analysis Requested											
Address 630 South Beretania Street Chemistry Lab						Due Date Requested:													
City: Honolulu						TAT Requested (days):													
State, Zip: HI, 96843						Compliance Project: Δ Yes Δ No													
Phone 808-748-5840 (Tel)						PO #: C20525101 exp 05312023													
Email: kiwamoto@hbws.org						WO #:													
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill						Project #: 38001111													
Site: Hawaii						SSOW#:													
Sample Identification						Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, Q=waste/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)	625.1, 625.1 SIM	8015B_GRO_LL - (MOD) GRO	8015B_DRO_LL_CS - HNL Ranges. C10-C24/C24-C36/C8-C18	525.2_PREC - (MOD) 525plus Plus TICs	537.1_DW_PREC - 537.1 Full List	533 - All Analytes	Total Number of Containers	Preservation Codes: R - NaThioSO4 RA - NaThio/HCl Q - Na2SO3 QA - Na2SO3/HCl Y - Trizma I - NH4 Acetate	
										X	R	RA	Q	QA	Y	I		Other:	
Ka'amilo Wells Pump 1						23-Jun-2025	1152	G	Water		2	3	2	2					Special Instructions/Note:
Ka'amilo Wells Pump 1 (Matrix Spike)									Water										
Ka'amilo Wells Pump 1 (Matrix Spike Duplicate)									Water										
TB: Ka'amilo Wells Pump 1						23-Jun-2025	1162		Water			2							
Ka'amilo Wells Pump 2						23-Jun-2025	1237		Water		2	3	2	2					
Ka'amilo Wells Pump 2 (Matrix Spike)									Water										
Ka'amilo Wells Pump 2 (Matrix Spike Duplicate)									Water										
TB: Ka'amilo Wells Pump 2						23-Jun-2025	1237		Water			2							
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)													
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological						☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months													
Deliverable Requested I, II, III, IV, Other (specify)						Special Instructions/QC Requirements.													
Empty Kit Relinquished by:						Date:	Time	Method of Shipment:											
Relinquished by:						Date/Time: 24 June 2025 1400	Company: HBWS	Received by: 											
Relinquished by:						Date/Time:	Company:	Received by:											
Relinquished by:						Date/Time:	Company:	Received by:											
Custody Seals Intact Δ Yes Δ No						Cooler Temperature(s) °C and Other Remarks: Page 41 of 44 7574 (1) 1.3° - 0.0 = 1.3° (2) 4.6° - 0.0 = 4.6° GEL: P0029410													

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

Chain of Custody Record



Loc: 380
Envir **157093**

[illegible]

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-157093-1

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

Login Number: 157093

List Number: 1

Creator: Segura, Ryan

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).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-157093-1

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

Login Number: 157093

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 06/25/25 07:16 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	1.6
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	