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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
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Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
Weekly

JOB NUMBER

380-131727-1

Eurofins Eaton Analytical Pomona

Job Notes

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

Compliance Statement

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

Authorization



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Definitions/Glossary

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

Job ID: 380-131727-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high 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: 380-131727-1

Job ID: 380-131727-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-131727-1

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

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

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

Receipt

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

GC/MS Semi VOA

Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-526039. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 625.1_SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-526039. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 525.2_PREC: The matrix spike (MS) recovery for preparation batch 380-130179 and analytical batch 380-130315 was below control limits for Anthracene. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Gasoline Range Organics

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

Diesel Range Organics

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

Detection Summary

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

Job ID: 380-131727-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-131727-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.028		0.0097	ug/L	1		525.2	Total/NA

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-131727-2

No Detections.

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This Detection Summary does not include radiochemical test results.

Client Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-131727-1

Date Collected: 01/21/25 11:22

Matrix: Water

Date Received: 01/23/25 09:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
2,4'-DDD	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
2,4'-DDE	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
2,4'-DDT	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
2-Methylnaphthalene	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
4,4'-DDD	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
4,4'-DDE	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
4,4'-DDT	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Acenaphthene	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Acenaphthylene	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Acetochlor	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Alachlor	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
alpha-BHC	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
alpha-Chlordane	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Anthracene	<0.019	F1	0.019	ug/L		01/24/25 07:38	01/24/25 16:47	1
Atrazine	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Benz(a)anthracene	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Benzo[a]pyrene	<0.019		0.019	ug/L		01/24/25 07:38	01/24/25 16:47	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		01/24/25 07:38	01/24/25 16:47	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		01/24/25 07:38	01/24/25 16:47	1
beta-BHC	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		01/24/25 07:38	01/24/25 16:47	1
Bromacil	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Butachlor	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Butylbenzylphthalate	<0.48		0.48	ug/L		01/24/25 07:38	01/24/25 16:47	1
Chlorobenzilate	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Chloroneb	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Chlorpyrifos	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Chrysene	<0.019		0.019	ug/L		01/24/25 07:38	01/24/25 16:47	1
delta-BHC	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		01/24/25 07:38	01/24/25 16:47	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Dieldrin	0.028		0.0097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Diethylphthalate	<0.48		0.48	ug/L		01/24/25 07:38	01/24/25 16:47	1
Dimethylphthalate	<0.48		0.48	ug/L		01/24/25 07:38	01/24/25 16:47	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		01/24/25 07:38	01/24/25 16:47	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Endosulfan sulfate	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Endrin	<0.0097	*+	0.0097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Endrin aldehyde	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
EPTC	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Fluoranthene	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1

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Client Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-131727-1

Date Collected: 01/21/25 11:22

Matrix: Water

Date Received: 01/23/25 09:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
gamma-Chlordane	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Heptachlor	<0.0097		0.0097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Hexachlorobenzene	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Isophorone	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Lindane	<0.0097		0.0097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Malathion	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Methoxychlor	<0.048	^3+	0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Metolachlor	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Molinate	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Naphthalene	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Parathion	<0.097	*+ F1	0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Phenanthrene	<0.039		0.039	ug/L		01/24/25 07:38	01/24/25 16:47	1
Propachlor	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Pyrene	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Simazine	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Terbacil	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Terbutylazine	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Thiobencarb	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		01/24/25 07:38	01/24/25 16:47	1
trans-Nonachlor	<0.048		0.048	ug/L		01/24/25 07:38	01/24/25 16:47	1
Trifluralin	<0.097		0.097	ug/L		01/24/25 07:38	01/24/25 16:47	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	01/24/25 07:38	01/24/25 16:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	99		70 - 130	01/24/25 07:38	01/24/25 16:47	1
Perylene-d12	94		70 - 130	01/24/25 07:38	01/24/25 16:47	1
Triphenylphosphate	104		70 - 130	01/24/25 07:38	01/24/25 16:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
2-Methylnaphthalene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Acenaphthene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Acenaphthylene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Anthracene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Benzo[a]anthracene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Benzo[a]pyrene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Chrysene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Fluoranthene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1

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Client Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-131727-1

Date Collected: 01/21/25 11:22

Matrix: Water

Date Received: 01/23/25 09:37

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		01/23/25 18:52	01/29/25 21:12	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Naphthalene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Phenanthrene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1
Pyrene	<0.19		0.19	ug/L		01/23/25 18:52	01/29/25 21:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	81		28 - 127	01/23/25 18:52	01/29/25 21:12	1
2-Fluorobiphenyl (Surr)	71		31 - 120	01/23/25 18:52	01/29/25 21:12	1
2-Fluorophenol (Surr)	47		17 - 120	01/23/25 18:52	01/29/25 21:12	1
Nitrobenzene-d5 (Surr)	72		27 - 120	01/23/25 18:52	01/29/25 21:12	1
Phenol-d6 (Surr)	37		10 - 120	01/23/25 18:52	01/29/25 21:12	1
p-Terphenyl-d14 (Surr)	74		45 - 120	01/23/25 18:52	01/29/25 21:12	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
1,2-Ethanediamine, N,N,N'-trichloro-N',1,1,2,2-pentafluor o	13	T J N	ug/L		2.11	105882-92-6	01/23/25 18:52	01/31/25 00:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	75		33 - 139	01/23/25 18:52	01/31/25 00:05	1
2-Fluorobiphenyl (Surr)	71		33 - 126	01/23/25 18:52	01/31/25 00:05	1
2-Fluorophenol (Surr)	55		12 - 120	01/23/25 18:52	01/31/25 00:05	1
Nitrobenzene-d5 (Surr)	75		36 - 120	01/23/25 18:52	01/31/25 00:05	1
Phenol-d6 (Surr)	35		10 - 120	01/23/25 18:52	01/31/25 00:05	1
p-Terphenyl-d14 (Surr)	73		47 - 131	01/23/25 18:52	01/31/25 00:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			01/28/25 20:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		38 - 134		01/28/25 20:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<26		26	ug/L		01/27/25 18:31	02/03/25 02:13	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		01/27/25 18:31	02/03/25 02:13	1
C8-C18	<26		26	ug/L		01/27/25 18:31	02/03/25 02:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	100		60 - 130	01/27/25 18:31	02/03/25 02:13	1

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-131727-2

Date Collected: 01/21/25 11:22

Matrix: Water

Date Received: 01/23/25 09:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			01/28/25 22:48	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-131727-2

Date Collected: 01/21/25 11:22

Matrix: Water

Date Received: 01/23/25 09:37

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
4-Bromofluorobenzene (Surr)	91		38 - 134		01/28/25 22:48	1

- 1
- 2
- 3
- 4
- 5
- 6
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- 14
- 15
- 16

Action Limit Summary

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

Job ID: 380-131727-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-131727-1

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

Surrogate Summary

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

Job ID: 380-131727-1
SDG: Weekly

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-130062-AG-1-A DU	Duplicate	99	93	107
380-131727-1	Ka'amilo Wells	99	94	104
380-131727-1 MS	Ka'amilo Wells	99	96	110
LCS 380-130179/23-A	Lab Control Sample	99	96	112
LCSD 380-130179/24-A	Lab Control Sample Dup	98	97	112
MB 380-130179/21-A	Method Blank	99	95	109
MRL 380-130179/22-A	Lab Control Sample	100	93	107

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

Percent Surrogate Recovery (Acceptance Limits)

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)
380-131727-1	Ka'amilo Wells	75	71	55	75	35	73
MB 570-526039/1-A	Method Blank	79	72	47	77	25	71

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

Percent Surrogate Recovery (Acceptance Limits)

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)
380-131727-1	Ka'amilo Wells	81	71	47	72	37	74
LCS 570-526039/2-A	Lab Control Sample	70	64	39	54	29	71
LCSD 570-526039/3-A	Lab Control Sample Dup	84	75	52	66	34	81
MB 570-526039/1-A	Method Blank	109	77	41	77	25	73

Surrogate Legend

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

Surrogate Summary

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

Job ID: 380-131727-1
SDG: Weekly

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-131727-1	Ka'amilo Wells	95
380-131727-2	TB: Ka'amilo Wells	91
380-131757-C-1 MS	Matrix Spike	97
380-131757-C-1 MSD	Matrix Spike Duplicate	98
LCS 570-527285/1008	Lab Control Sample	98
LCSD 570-527285/9	Lab Control Sample Dup	95
MB 570-527285/10	Method Blank	90
MRL 570-527285/1003	Lab Control Sample	92

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-131727-1	Ka'amilo Wells	100
380-131757-B-1-A MS	Matrix Spike	109
380-131757-B-1-B MSD	Matrix Spike Duplicate	111
LCS 570-527005/2-A	Lab Control Sample	111
LCSD 570-527005/3-A	Lab Control Sample Dup	112
MB 570-527005/1-A	Method Blank	114
MRL 570-527005/4-A	Lab Control Sample	97

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-131727-1
 SDG: Weekly

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

Lab Sample ID: MB 380-130179/21-A
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 130179

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
2,4'-DDD	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
2,4'-DDE	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
2,4'-DDT	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
2,4-Dinitrotoluene	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
2,6-Dinitrotoluene	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
2-Methylnaphthalene	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
4,4'-DDD	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
4,4'-DDE	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
4,4'-DDT	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Acenaphthene	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Acenaphthylene	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Acetochlor	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Alachlor	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
alpha-BHC	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
alpha-Chlordane	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Anthracene	<0.020		0.020	ug/L		01/24/25 07:38	01/24/25 16:26	1
Atrazine	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Benz(a)anthracene	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Benzo[a]pyrene	<0.020		0.020	ug/L		01/24/25 07:38	01/24/25 16:26	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		01/24/25 07:38	01/24/25 16:26	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		01/24/25 07:38	01/24/25 16:26	1
beta-BHC	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		01/24/25 07:38	01/24/25 16:26	1
Bromacil	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Butachlor	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Butylbenzylphthalate	<0.50		0.50	ug/L		01/24/25 07:38	01/24/25 16:26	1
Chlorobenzilate	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Chloroneb	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Chlorothalonil (Draconil, Bravo)	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Chlorpyrifos	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Chrysene	<0.020		0.020	ug/L		01/24/25 07:38	01/24/25 16:26	1
delta-BHC	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		01/24/25 07:38	01/24/25 16:26	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Dieldrin	<0.010		0.010	ug/L		01/24/25 07:38	01/24/25 16:26	1
Diethylphthalate	<0.50		0.50	ug/L		01/24/25 07:38	01/24/25 16:26	1
Dimethylphthalate	<0.50		0.50	ug/L		01/24/25 07:38	01/24/25 16:26	1
Di-n-butyl phthalate	<1.0		1.0	ug/L		01/24/25 07:38	01/24/25 16:26	1
Di-n-octyl phthalate	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Endosulfan I (Alpha)	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Endosulfan II (Beta)	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Endosulfan sulfate	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Endrin	<0.010		0.010	ug/L		01/24/25 07:38	01/24/25 16:26	1
Endrin aldehyde	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
EPTC	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1

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QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: MB 380-130179/21-A
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 130179

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Fluorene	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
gamma-Chlordane	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Heptachlor	<0.010		0.010	ug/L		01/24/25 07:38	01/24/25 16:26	1
Heptachlor epoxide (isomer B)	<0.010		0.010	ug/L		01/24/25 07:38	01/24/25 16:26	1
Hexachlorobenzene	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Isophorone	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Lindane	<0.010		0.010	ug/L		01/24/25 07:38	01/24/25 16:26	1
Malathion	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Methoxychlor	<0.050	^3+	0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Metolachlor	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Molinate	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Naphthalene	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Parathion	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Pendimethalin (Penoxaline)	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Phenanthrene	<0.040		0.040	ug/L		01/24/25 07:38	01/24/25 16:26	1
Propachlor	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Pyrene	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Simazine	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Terbacil	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Terbutylazine	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Thiobencarb	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		01/24/25 07:38	01/24/25 16:26	1
trans-Nonachlor	<0.050		0.050	ug/L		01/24/25 07:38	01/24/25 16:26	1
Trifluralin	<0.10		0.10	ug/L		01/24/25 07:38	01/24/25 16:26	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
9-Octadecenamide, (Z)-	3.89	T J N	ug/L		7.99	301-02-0	01/24/25 07:38	01/24/25 16:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	99		70 - 130	01/24/25 07:38	01/24/25 16:26	1
Perylene-d12	95		70 - 130	01/24/25 07:38	01/24/25 16:26	1
Triphenylphosphate	109		70 - 130	01/24/25 07:38	01/24/25 16:26	1

Lab Sample ID: LCS 380-130179/23-A
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.98	1.81		ug/L		91	70 - 130
2,4'-DDD	1.98	2.18		ug/L		110	70 - 130
2,4'-DDE	1.98	2.05		ug/L		103	70 - 130
2,4'-DDT	1.98	2.18		ug/L		110	70 - 130
2,4-Dinitrotoluene	1.98	2.40		ug/L		121	70 - 130
2,6-Dinitrotoluene	1.98	2.17		ug/L		109	70 - 130
2-Methylnaphthalene	1.98	1.80		ug/L		91	70 - 130

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QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: LCS 380-130179/23-A
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.98	2.22		ug/L		112	70 - 130
4,4'-DDE	1.98	1.97		ug/L		100	70 - 130
4,4'-DDT	1.98	2.29		ug/L		116	70 - 130
Acenaphthene	1.98	1.89		ug/L		95	70 - 130
Acenaphthylene	1.98	1.84		ug/L		93	70 - 130
Acetochlor	1.98	2.15		ug/L		109	70 - 130
Alachlor	1.98	2.08		ug/L		105	70 - 130
alpha-BHC	1.98	2.03		ug/L		102	70 - 130
alpha-Chlordane	1.98	2.13		ug/L		107	70 - 130
Anthracene	1.98	1.74		ug/L		88	70 - 130
Atrazine	1.98	2.16		ug/L		109	70 - 130
Benz(a)anthracene	1.98	2.05		ug/L		103	70 - 130
Benzo[a]pyrene	1.98	1.89		ug/L		95	70 - 130
Benzo[b]fluoranthene	1.98	1.92		ug/L		97	70 - 130
Benzo[g,h,i]perylene	1.98	1.93		ug/L		97	70 - 130
Benzo[k]fluoranthene	1.98	2.01		ug/L		101	70 - 130
beta-BHC	1.98	2.21		ug/L		112	70 - 130
Bis(2-ethylhexyl) phthalate	1.98	1.90		ug/L		96	70 - 130
Bromacil	1.98	2.23		ug/L		113	70 - 130
Butachlor	1.98	2.20		ug/L		111	70 - 130
Butylbenzylphthalate	1.98	2.27		ug/L		114	70 - 130
Chlorobenzilate	1.98	1.64		ug/L		83	70 - 130
Chloroneb	1.98	1.97		ug/L		99	70 - 130
Chlorothalonil (Draconil, Bravo)	1.98	2.06		ug/L		104	70 - 130
Chlorpyrifos	1.98	2.15		ug/L		108	70 - 130
Chrysene	1.98	1.96		ug/L		99	70 - 130
delta-BHC	1.98	2.08		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	1.98	2.14		ug/L		108	70 - 130
Dibenz(a,h)anthracene	1.98	1.90		ug/L		96	70 - 130
Diclorvos (DDVP)	1.98	1.94		ug/L		98	70 - 130
Dieldrin	1.98	1.97		ug/L		99	70 - 130
Diethylphthalate	1.98	2.06		ug/L		104	70 - 130
Dimethylphthalate	1.98	1.97		ug/L		99	70 - 130
Di-n-butyl phthalate	3.96	4.18		ug/L		105	70 - 130
Di-n-octyl phthalate	1.98	1.72		ug/L		87	70 - 130
Endosulfan I (Alpha)	1.98	2.07		ug/L		105	70 - 130
Endosulfan II (Beta)	1.98	2.15		ug/L		108	70 - 130
Endosulfan sulfate	1.98	2.15		ug/L		109	70 - 130
Endrin	1.98	2.51		ug/L		127	70 - 130
Endrin aldehyde	1.98	1.91		ug/L		96	60 - 130
EPTC	1.98	1.87		ug/L		94	70 - 130
Fluoranthene	1.98	2.11		ug/L		107	70 - 130
Fluorene	1.98	1.96		ug/L		99	70 - 130
gamma-Chlordane	1.98	2.07		ug/L		105	70 - 130
Heptachlor	1.98	2.17		ug/L		109	70 - 130
Heptachlor epoxide (isomer B)	1.98	2.09		ug/L		105	70 - 130
Hexachlorobenzene	1.98	1.88		ug/L		95	70 - 130
Hexachlorocyclopentadiene	1.98	2.06		ug/L		104	70 - 130
Indeno[1,2,3-cd]pyrene	1.98	1.91		ug/L		96	70 - 130

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QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: LCS 380-130179/23-A
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isophorone	1.98	1.77		ug/L		89	70 - 130
Lindane	1.98	2.10		ug/L		106	70 - 130
Malathion	1.98	2.23		ug/L		113	70 - 130
Methoxychlor	1.98	2.21		ug/L		112	70 - 130
Metolachlor	1.98	2.15		ug/L		109	70 - 130
Molinate	1.98	2.00		ug/L		101	70 - 130
Naphthalene	1.98	1.83		ug/L		92	70 - 130
Parathion	1.98	2.54		ug/L		128	70 - 130
Pendimethalin (Penoxaline)	1.98	2.40		ug/L		121	70 - 130
Phenanthrene	1.98	1.81		ug/L		91	70 - 130
Propachlor	1.98	2.17		ug/L		110	70 - 130
Pyrene	1.98	2.12		ug/L		107	70 - 130
Simazine	1.98	2.08		ug/L		105	70 - 130
Terbacil	1.98	2.37		ug/L		120	70 - 130
Terbutylazine	1.98	2.33		ug/L		118	70 - 130
Thiobencarb	1.98	2.21		ug/L		112	70 - 130
trans-Nonachlor	1.98	2.06		ug/L		104	70 - 130
Trifluralin	1.98	2.02		ug/L		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	112		70 - 130

Lab Sample ID: LCSD 380-130179/24-A
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.99	1.86		ug/L		94	70 - 130	3	20
2,4'-DDD	1.99	2.29		ug/L		115	70 - 130	5	20
2,4'-DDE	1.99	2.13		ug/L		107	70 - 130	4	20
2,4'-DDT	1.99	2.30		ug/L		116	70 - 130	5	20
2,4-Dinitrotoluene	1.99	2.55		ug/L		128	70 - 130	6	20
2,6-Dinitrotoluene	1.99	2.31		ug/L		116	70 - 130	6	20
2-Methylnaphthalene	1.99	1.86		ug/L		94	70 - 130	3	20
4,4'-DDD	1.99	2.32		ug/L		117	70 - 130	4	20
4,4'-DDE	1.99	2.09		ug/L		105	70 - 130	6	20
4,4'-DDT	1.99	2.41		ug/L		122	70 - 130	5	20
Acenaphthene	1.99	1.95		ug/L		98	70 - 130	3	20
Acenaphthylene	1.99	1.93		ug/L		97	70 - 130	5	20
Acetochlor	1.99	2.27		ug/L		114	70 - 130	5	20
Alachlor	1.99	2.21		ug/L		111	70 - 130	6	20
alpha-BHC	1.99	2.10		ug/L		106	70 - 130	3	20
alpha-Chlordane	1.99	2.26		ug/L		114	70 - 130	6	20
Anthracene	1.99	1.80		ug/L		91	70 - 130	3	20
Atrazine	1.99	2.29		ug/L		116	70 - 130	6	20
Benz(a)anthracene	1.99	2.14		ug/L		108	70 - 130	5	20

QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-130179/24-A
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Benzo[a]pyrene	1.99	1.99		ug/L		100	70 - 130	5	20	
Benzo[b]fluoranthene	1.99	2.01		ug/L		101	70 - 130	5	20	
Benzo[g,h,i]perylene	1.99	2.04		ug/L		103	70 - 130	5	20	
Benzo[k]fluoranthene	1.99	2.12		ug/L		107	70 - 130	5	20	
beta-BHC	1.99	2.33		ug/L		117	70 - 130	5	20	
Bis(2-ethylhexyl) phthalate	1.99	2.02		ug/L		102	70 - 130	6	20	
Bromacil	1.99	2.39		ug/L		120	70 - 130	7	20	
Butachlor	1.99	2.34		ug/L		118	70 - 130	6	20	
Butylbenzylphthalate	1.99	2.33		ug/L		117	70 - 130	3	20	
Chlorobenzilate	1.99	1.68		ug/L		85	70 - 130	3	20	
Chloroneb	1.99	2.02		ug/L		102	70 - 130	3	20	
Chlorothalonil (Draconil, Bravo)	1.99	2.48		ug/L		125	70 - 130	19	20	
Chlorpyrifos	1.99	2.27		ug/L		114	70 - 130	5	20	
Chrysene	1.99	2.06		ug/L		104	70 - 130	5	20	
delta-BHC	1.99	2.16		ug/L		109	70 - 130	4	20	
Di(2-ethylhexyl)adipate	1.99	2.24		ug/L		113	70 - 130	5	20	
Dibenz(a,h)anthracene	1.99	2.01		ug/L		101	70 - 130	6	20	
Diclorvos (DDVP)	1.99	2.03		ug/L		102	70 - 130	5	20	
Dieldrin	1.99	2.08		ug/L		105	70 - 130	5	20	
Diethylphthalate	1.99	2.15		ug/L		108	70 - 130	4	20	
Dimethylphthalate	1.99	2.04		ug/L		103	70 - 130	3	20	
Di-n-butyl phthalate	3.97	4.39		ug/L		111	70 - 130	5	20	
Di-n-octyl phthalate	1.99	1.82		ug/L		92	70 - 130	6	20	
Endosulfan I (Alpha)	1.99	2.12		ug/L		107	70 - 130	2	20	
Endosulfan II (Beta)	1.99	2.26		ug/L		114	70 - 130	5	20	
Endosulfan sulfate	1.99	2.25		ug/L		114	70 - 130	5	20	
Endrin	1.99	2.67	*+	ug/L		135	70 - 130	6	20	
Endrin aldehyde	1.99	1.93		ug/L		97	60 - 130	1	20	
EPTC	1.99	1.95		ug/L		98	70 - 130	4	20	
Fluoranthene	1.99	2.19		ug/L		110	70 - 130	4	20	
Fluorene	1.99	2.03		ug/L		102	70 - 130	3	20	
gamma-Chlordane	1.99	2.18		ug/L		110	70 - 130	5	20	
Heptachlor	1.99	2.28		ug/L		115	70 - 130	5	20	
Heptachlor epoxide (isomer B)	1.99	2.16		ug/L		109	70 - 130	3	20	
Hexachlorobenzene	1.99	1.95		ug/L		98	70 - 130	4	20	
Hexachlorocyclopentadiene	1.99	2.17		ug/L		109	70 - 130	5	20	
Indeno[1,2,3-cd]pyrene	1.99	2.02		ug/L		102	70 - 130	5	20	
Isophorone	1.99	1.86		ug/L		94	70 - 130	5	20	
Lindane	1.99	2.17		ug/L		109	70 - 130	4	20	
Malathion	1.99	2.32		ug/L		117	70 - 130	4	20	
Methoxychlor	1.99	2.33		ug/L		117	70 - 130	5	20	
Metolachlor	1.99	2.23		ug/L		113	70 - 130	4	20	
Molinate	1.99	2.08		ug/L		105	70 - 130	4	20	
Naphthalene	1.99	1.90		ug/L		96	70 - 130	3	20	
Parathion	1.99	2.68	*+	ug/L		135	70 - 130	5	20	
Pendimethalin (Penoxaline)	1.99	2.56		ug/L		129	70 - 130	6	20	
Phenanthrene	1.99	1.84		ug/L		93	70 - 130	2	20	
Propachlor	1.99	2.27		ug/L		114	70 - 130	4	20	
Pyrene	1.99	2.20		ug/L		111	70 - 130	3	20	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-130179/24-A
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Simazine	1.99	2.22		ug/L		112	70 - 130	6	20
Terbacil	1.99	2.54		ug/L		128	70 - 130	7	20
Terbuthylazine	1.99	2.47		ug/L		125	70 - 130	6	20
Thiobencarb	1.99	2.31		ug/L		116	70 - 130	4	20
trans-Nonachlor	1.99	2.15		ug/L		108	70 - 130	4	20
Trifluralin	1.99	2.14		ug/L		108	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	112		70 - 130

Lab Sample ID: MRL 380-130179/22-A
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0992	0.103		ug/L		104	50 - 150
2,4'-DDD	0.0992	0.0949	J	ug/L		96	50 - 150
2,4'-DDE	0.0992	0.0974	J	ug/L		98	50 - 150
2,4'-DDT	0.0992	0.132		ug/L		133	50 - 150
2,4-Dinitrotoluene	0.0992	0.130		ug/L		131	50 - 150
2,6-Dinitrotoluene	0.0992	0.131		ug/L		132	50 - 150
2-Methylnaphthalene	0.0992	0.0957	J	ug/L		96	50 - 150
4,4'-DDD	0.0992	0.113		ug/L		114	50 - 150
4,4'-DDE	0.0992	0.0951	J	ug/L		96	50 - 150
4,4'-DDT	0.0992	0.136		ug/L		137	50 - 150
Acenaphthene	0.0992	0.0889	J	ug/L		90	50 - 150
Acenaphthylene	0.0992	0.0910	J	ug/L		92	50 - 150
Acetochlor	0.0992	0.121		ug/L		122	50 - 150
Alachlor	0.0496	0.0668		ug/L		135	50 - 150
alpha-BHC	0.0992	0.110		ug/L		110	50 - 150
alpha-Chlordane	0.0248	<0.029		ug/L		103	50 - 150
Anthracene	0.0198	0.0204		ug/L		103	50 - 150
Atrazine	0.0496	0.0621		ug/L		125	50 - 150
Benz(a)anthracene	0.0496	0.0579		ug/L		117	50 - 150
Benzo[a]pyrene	0.0198	0.0188	J	ug/L		95	50 - 150
Benzo[b]fluoranthene	0.0198	0.0188	J	ug/L		95	50 - 150
Benzo[g,h,i]perylene	0.0496	0.0426	J	ug/L		86	50 - 150
Benzo[k]fluoranthene	0.0198	0.0185	J	ug/L		93	50 - 150
beta-BHC	0.0992	0.121		ug/L		122	50 - 150
Bis(2-ethylhexyl) phthalate	0.595	0.520	J	ug/L		87	50 - 150
Bromacil	0.0992	0.120		ug/L		120	50 - 150
Butachlor	0.0496	0.0715		ug/L		144	50 - 150
Butylbenzylphthalate	0.496	0.590		ug/L		119	50 - 150
Chlorobenzilate	0.0992	0.100		ug/L		101	50 - 150
Chloroneb	0.0992	0.0866	J	ug/L		87	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0992	0.0989	J	ug/L		100	50 - 150

QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: MRL 380-130179/22-A
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorpyrifos	0.0496	0.0515		ug/L		104	50 - 150
Chrysene	0.0198	0.0205		ug/L		103	50 - 150
delta-BHC	0.0992	0.111		ug/L		112	50 - 150
Di(2-ethylhexyl)adipate	0.595	0.637		ug/L		107	50 - 150
Dibenz(a,h)anthracene	0.0496	0.0452	J	ug/L		91	50 - 150
Diclorvos (DDVP)	0.0496	0.0570		ug/L		115	50 - 150
Dieldrin	0.00992	0.00996		ug/L		100	50 - 150
Diethylphthalate	0.496	0.506		ug/L		102	50 - 150
Dimethylphthalate	0.496	0.501		ug/L		101	50 - 150
Di-n-butyl phthalate	0.496	0.512	J	ug/L		103	49 - 243
Di-n-octyl phthalate	0.0992	0.0887	J	ug/L		89	50 - 150
Endosulfan I (Alpha)	0.0992	0.104		ug/L		105	50 - 150
Endosulfan II (Beta)	0.0992	0.117		ug/L		118	50 - 150
Endosulfan sulfate	0.0992	0.120		ug/L		121	50 - 150
Endrin	0.00992	0.0147		ug/L		148	50 - 150
Endrin aldehyde	0.0992	0.0967	J	ug/L		97	50 - 150
EPTC	0.0992	0.0880	J	ug/L		89	50 - 150
Fluoranthene	0.0992	0.100		ug/L		101	50 - 150
Fluorene	0.0496	<0.050		ug/L		100	50 - 150
gamma-Chlordane	0.0248	0.0214	J	ug/L		86	50 - 150
Heptachlor	0.00992	0.0127		ug/L		128	50 - 150
Heptachlor epoxide (isomer B)	0.00992	0.0105		ug/L		105	50 - 150
Hexachlorobenzene	0.0496	0.0472	J	ug/L		95	50 - 150
Hexachlorocyclopentadiene	0.0496	0.0501		ug/L		101	50 - 150
Indeno[1,2,3-cd]pyrene	0.0496	0.0414	J	ug/L		83	50 - 150
Isophorone	0.0992	0.110		ug/L		110	50 - 150
Lindane	0.00992	0.0132		ug/L		133	50 - 150
Malathion	0.0992	0.125		ug/L		126	50 - 150
Methoxychlor	0.0496	0.0788	^3+	ug/L		159	50 - 150
Metolachlor	0.0496	0.0676		ug/L		136	50 - 150
Molinate	0.0992	0.0998		ug/L		101	50 - 150
Naphthalene	0.0992	0.0940	J	ug/L		95	50 - 150
Parathion	0.0992	0.107		ug/L		108	50 - 150
Pendimethalin (Penoxaline)	0.0992	0.125		ug/L		126	50 - 150
Phenanthrene	0.0397	0.0402		ug/L		101	50 - 150
Propachlor	0.0496	0.0517		ug/L		104	50 - 150
Pyrene	0.0496	0.0502		ug/L		101	50 - 150
Simazine	0.0496	0.0507		ug/L		102	50 - 150
Terbacil	0.0992	0.120		ug/L		121	50 - 150
Terbutylazine	0.0992	0.103		ug/L		104	50 - 150
Thiobencarb	0.0992	0.104		ug/L		105	50 - 150
trans-Nonachlor	0.0248	<0.026		ug/L		93	50 - 150
Trifluralin	0.0992	0.110		ug/L		111	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	93		70 - 130
Triphenylphosphate	107		70 - 130

QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: 380-131727-1 MS

Matrix: Water

Analysis Batch: 130315

Client Sample ID: Ka'amilo Wells

Prep Type: Total/NA

Prep Batch: 130179

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result			Result	Qualifier				
1-Methylnaphthalene	<0.097		1.96	1.86		ug/L		95	70 - 130
2,4'-DDD	<0.097		1.96	2.13		ug/L		109	70 - 130
2,4'-DDE	<0.097		1.96	1.91		ug/L		98	70 - 130
2,4'-DDT	<0.097		1.96	2.04		ug/L		104	70 - 130
2,4-Dinitrotoluene	<0.097		1.96	2.54		ug/L		130	70 - 130
2,6-Dinitrotoluene	<0.097		1.96	2.29		ug/L		117	70 - 130
2-Methylnaphthalene	<0.097		1.96	1.86		ug/L		95	70 - 130
4,4'-DDD	<0.097		1.96	2.13		ug/L		109	70 - 130
4,4'-DDE	<0.097		1.96	1.79		ug/L		92	70 - 130
4,4'-DDT	<0.097		1.96	2.09		ug/L		107	70 - 130
Acenaphthene	<0.097		1.96	1.92		ug/L		98	70 - 130
Acenaphthylene	<0.097		1.96	1.88		ug/L		96	70 - 130
Acetochlor	<0.097		1.96	2.14		ug/L		109	70 - 130
Alachlor	<0.048		1.96	2.08		ug/L		107	70 - 130
alpha-BHC	<0.097		1.96	2.00		ug/L		102	70 - 130
alpha-Chlordane	<0.048		1.96	2.09		ug/L		106	70 - 130
Anthracene	<0.019	F1	1.96	0.880	F1	ug/L		45	70 - 130
Atrazine	<0.048		1.96	2.15		ug/L		110	70 - 130
Benz(a)anthracene	<0.048		1.96	1.79		ug/L		92	70 - 130
Benzo[a]pyrene	<0.019		1.96	1.48		ug/L		76	70 - 130
Benzo[b]fluoranthene	<0.019		1.96	1.96		ug/L		100	70 - 130
Benzo[g,h,i]perylene	<0.048		1.96	1.79		ug/L		92	70 - 130
Benzo[k]fluoranthene	<0.019		1.96	1.95		ug/L		100	70 - 130
beta-BHC	<0.097		1.96	2.18		ug/L		112	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.96	1.72		ug/L		88	70 - 130
Bromacil	<0.097		1.96	2.47		ug/L		127	70 - 130
Butachlor	<0.048		1.96	2.25		ug/L		115	70 - 130
Butylbenzylphthalate	<0.48		1.96	2.23		ug/L		114	70 - 130
Chlorobenzilate	<0.097		1.96	1.87		ug/L		96	70 - 130
Chloroneb	<0.097		1.96	1.97		ug/L		101	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.96	2.14		ug/L		109	70 - 130
Chlorpyrifos	<0.048		1.96	2.16		ug/L		110	70 - 130
Chrysene	<0.019		1.96	1.98		ug/L		101	70 - 130
delta-BHC	<0.097		1.96	2.02		ug/L		104	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.96	1.77		ug/L		90	70 - 130
Dibenz(a,h)anthracene	<0.048		1.96	1.80		ug/L		92	70 - 130
Diclorvos (DDVP)	<0.048		1.96	1.99		ug/L		102	70 - 130
Dieldrin	0.028		1.96	1.96		ug/L		99	70 - 130
Diethylphthalate	<0.48		1.96	2.04		ug/L		104	70 - 130
Dimethylphthalate	<0.48		1.96	1.98		ug/L		101	70 - 130
Di-n-butyl phthalate	<0.97		3.91	4.18		ug/L		107	70 - 130
Di-n-octyl phthalate	<0.097		1.96	1.54		ug/L		79	70 - 130
Endosulfan I (Alpha)	<0.097		1.96	2.02		ug/L		103	70 - 130
Endosulfan II (Beta)	<0.097		1.96	2.14		ug/L		109	70 - 130
Endosulfan sulfate	<0.097		1.96	2.16		ug/L		110	70 - 130
Endrin	<0.0097	*+	1.96	2.55		ug/L		130	70 - 130
Endrin aldehyde	<0.097		1.96	1.68		ug/L		86	60 - 130
EPTC	<0.097		1.96	1.92		ug/L		98	70 - 130

QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: 380-131727-1 MS
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Ka'amilo Wells
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Fluoranthene	<0.097		1.96	2.14		ug/L		109	70 - 130
Fluorene	<0.048		1.96	1.99		ug/L		102	70 - 130
gamma-Chlordane	<0.048		1.96	2.01		ug/L		102	70 - 130
Heptachlor	<0.0097		1.96	2.22		ug/L		114	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.96	2.05		ug/L		105	70 - 130
Hexachlorobenzene	<0.048		1.96	1.89		ug/L		97	70 - 130
Hexachlorocyclopentadiene	<0.048		1.96	2.18		ug/L		111	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.96	1.77		ug/L		91	70 - 130
Isophorone	<0.097		1.96	1.81		ug/L		93	70 - 130
Lindane	<0.0097		1.96	2.07		ug/L		106	70 - 130
Malathion	<0.097		1.96	2.24		ug/L		114	70 - 130
Methoxychlor	<0.048	^3+	1.96	2.47		ug/L		126	70 - 130
Metolachlor	<0.048		1.96	2.14		ug/L		109	70 - 130
Molinate	<0.097		1.96	2.02		ug/L		103	70 - 130
Naphthalene	<0.097		1.96	1.87		ug/L		96	70 - 130
Parathion	<0.097	*+ F1	1.96	2.60	F1	ug/L		133	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.96	2.45		ug/L		125	70 - 130
Phenanthrene	<0.039		1.96	1.85		ug/L		95	70 - 130
Propachlor	<0.048		1.96	2.18		ug/L		111	70 - 130
Pyrene	<0.048		1.96	2.09		ug/L		107	70 - 130
Simazine	<0.048		1.96	2.09		ug/L		107	70 - 130
Terbacil	<0.097		1.96	2.50		ug/L		128	70 - 130
Terbutylazine	<0.097		1.96	2.36		ug/L		120	70 - 130
Thiobencarb	<0.097		1.96	2.22		ug/L		114	70 - 130
trans-Nonachlor	<0.048		1.96	1.97		ug/L		101	70 - 130
Trifluralin	<0.097		1.96	2.06		ug/L		105	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	110		70 - 130

Lab Sample ID: 380-130062-AG-1-A DU
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
1-Methylnaphthalene	<0.096		<0.099		ug/L		NC	20	
2,4'-DDD	<0.096		<0.099		ug/L		NC	20	
2,4'-DDE	<0.096		<0.099		ug/L		NC	20	
2,4'-DDT	<0.096		<0.099		ug/L		NC	20	
2,4-Dinitrotoluene	<0.096		<0.099		ug/L		NC	20	
2,6-Dinitrotoluene	<0.096		<0.099		ug/L		NC	20	
2-Methylnaphthalene	<0.096		<0.099		ug/L		NC	20	
4,4'-DDD	<0.096		<0.099		ug/L		NC	20	
4,4'-DDE	<0.096		<0.099		ug/L		NC	20	
4,4'-DDT	<0.096		<0.099		ug/L		NC	20	
Acenaphthene	<0.096		<0.099		ug/L		NC	20	

QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: 380-130062-AG-1-A DU
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Acenaphthylene	<0.096		<0.099		ug/L		NC	20
Acetochlor	<0.096		<0.099		ug/L		NC	20
Alachlor	<0.048		<0.049		ug/L		NC	20
alpha-BHC	<0.096		<0.099		ug/L		NC	20
alpha-Chlordane	<0.048		<0.049		ug/L		NC	20
Anthracene	<0.019		<0.020		ug/L		NC	20
Atrazine	0.067		0.0645		ug/L		3	20
Benz(a)anthracene	<0.048		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.048		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.020		ug/L		NC	20
beta-BHC	<0.096		<0.099		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.59		ug/L		NC	20
Bromacil	<0.096		<0.099		ug/L		NC	20
Butachlor	<0.048		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.49		ug/L		NC	20
Chlorobenzilate	<0.096		<0.099		ug/L		NC	20
Chloroneb	<0.096		<0.099		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.096		<0.099		ug/L		NC	20
Chlorpyrifos	<0.048		<0.049		ug/L		NC	20
Chrysene	<0.019		<0.020		ug/L		NC	20
delta-BHC	<0.096		<0.099		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.59		ug/L		NC	20
Dibenz(a,h)anthracene	<0.048		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.048		<0.049		ug/L		NC	20
Dieldrin	<0.0096		<0.0099		ug/L		NC	20
Diethylphthalate	<0.48		<0.49		ug/L		NC	20
Dimethylphthalate	<0.48		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.96		<0.99		ug/L		NC	20
Di-n-octyl phthalate	<0.096		<0.099		ug/L		NC	20
Endosulfan I (Alpha)	<0.096		<0.099		ug/L		NC	20
Endosulfan II (Beta)	<0.096		<0.099		ug/L		NC	20
Endosulfan sulfate	<0.096		<0.099		ug/L		NC	20
Endrin	<0.0096	*+	<0.0099	*+	ug/L		NC	20
Endrin aldehyde	<0.096		<0.099		ug/L		NC	20
EPTC	<0.096		<0.099		ug/L		NC	20
Fluoranthene	<0.096		<0.099		ug/L		NC	20
Fluorene	<0.048		<0.049		ug/L		NC	20
gamma-Chlordane	<0.048		<0.049		ug/L		NC	20
Heptachlor	<0.0096		<0.0099		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0096		<0.0099		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.049		ug/L		NC	20
Hexachlorocyclopentadiene	<0.048		<0.049		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.049		ug/L		NC	20
Isophorone	<0.096		<0.099		ug/L		NC	20
Lindane	<0.0096		<0.0099		ug/L		NC	20
Malathion	<0.096		<0.099		ug/L		NC	20
Methoxychlor	<0.048	^3+	<0.049		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: 380-130062-AG-1-A DU
Matrix: Water
Analysis Batch: 130315

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 130179

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Metolachlor	<0.048		<0.049		ug/L		NC	20
Molinate	<0.096		<0.099		ug/L		NC	20
Naphthalene	<0.096		<0.099		ug/L		NC	20
Parathion	<0.096	*+	<0.099	*+	ug/L		NC	20
Pendimethalin (Penoxaline)	<0.096		<0.099		ug/L		NC	20
Phenanthrene	<0.039		<0.040		ug/L		NC	20
Propachlor	<0.048		<0.049		ug/L		NC	20
Pyrene	<0.048		<0.049		ug/L		NC	20
Simazine	<0.048		<0.049		ug/L		NC	20
Terbacil	<0.096		<0.099		ug/L		NC	20
Terbutylazine	<0.096		<0.099		ug/L		NC	20
Thiobencarb	<0.096		<0.099		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.20		ug/L		NC	20
trans-Nonachlor	<0.048		<0.049		ug/L		NC	20
Trifluralin	<0.096		<0.099		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	93		70 - 130
Triphenylphosphate	107		70 - 130

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

Lab Sample ID: MB 570-526039/1-A
Matrix: Water
Analysis Batch: 528074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 526039

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L			N/A	01/23/25 18:52	01/30/25 23:42	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	79		33 - 139	01/23/25 18:52	01/30/25 23:42	1
2-Fluorobiphenyl (Surr)	72		33 - 126	01/23/25 18:52	01/30/25 23:42	1
2-Fluorophenol (Surr)	47		12 - 120	01/23/25 18:52	01/30/25 23:42	1
Nitrobenzene-d5 (Surr)	77		36 - 120	01/23/25 18:52	01/30/25 23:42	1
Phenol-d6 (Surr)	25		10 - 120	01/23/25 18:52	01/30/25 23:42	1
p-Terphenyl-d14 (Surr)	71		47 - 131	01/23/25 18:52	01/30/25 23:42	1

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

Lab Sample ID: MB 570-526039/1-A
Matrix: Water
Analysis Batch: 527743

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 526039

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
2-Methylnaphthalene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Acenaphthene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: MB 570-526039/1-A
Matrix: Water
Analysis Batch: 527743

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 526039

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Anthracene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Benzo[a]anthracene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Benzo[a]pyrene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Chrysene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Fluoranthene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Fluorene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Naphthalene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Phenanthrene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1
Pyrene	<0.20		0.20	ug/L		01/23/25 18:52	01/29/25 15:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	109		28 - 127	01/23/25 18:52	01/29/25 15:22	1
2-Fluorobiphenyl (Surr)	77		31 - 120	01/23/25 18:52	01/29/25 15:22	1
2-Fluorophenol (Surr)	41		17 - 120	01/23/25 18:52	01/29/25 15:22	1
Nitrobenzene-d5 (Surr)	77		27 - 120	01/23/25 18:52	01/29/25 15:22	1
Phenol-d6 (Surr)	25		10 - 120	01/23/25 18:52	01/29/25 15:22	1
p-Terphenyl-d14 (Surr)	73		45 - 120	01/23/25 18:52	01/29/25 15:22	1

Lab Sample ID: LCS 570-526039/2-A
Matrix: Water
Analysis Batch: 527743

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 526039

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	12.5		ug/L		63	47 - 120
2-Methylnaphthalene	20.0	14.5		ug/L		72	43 - 120
Acenaphthene	20.0	14.7		ug/L		73	60 - 132
Acenaphthylene	20.0	11.9		ug/L		59	54 - 126
Anthracene	20.0	15.7		ug/L		78	43 - 120
Benzo[a]anthracene	20.0	15.3		ug/L		77	42 - 133
Benzo[a]pyrene	20.0	16.3		ug/L		82	32 - 148
Benzo[b]fluoranthene	20.0	15.6		ug/L		78	42 - 140
Benzo[g,h,i]perylene	20.0	14.9		ug/L		75	1 - 195
Benzo[k]fluoranthene	20.0	15.8		ug/L		79	25 - 146
Chrysene	20.0	15.0		ug/L		75	44 - 140
Dibenz(a,h)anthracene	20.0	15.7		ug/L		78	1 - 200
Fluoranthene	20.0	16.9		ug/L		84	43 - 121
Fluorene	20.0	15.6		ug/L		78	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	15.9		ug/L		80	1 - 151
Naphthalene	20.0	13.1		ug/L		66	36 - 120
Phenanthrene	20.0	15.8		ug/L		79	65 - 120
Pyrene	20.0	15.8		ug/L		79	70 - 120

QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: LCS 570-526039/2-A
Matrix: Water
Analysis Batch: 527743

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 526039

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	70		28 - 127
2-Fluorobiphenyl (Surr)	64		31 - 120
2-Fluorophenol (Surr)	39		17 - 120
Nitrobenzene-d5 (Surr)	54		27 - 120
Phenol-d6 (Surr)	29		10 - 120
p-Terphenyl-d14 (Surr)	71		45 - 120

Lab Sample ID: LCSD 570-526039/3-A
Matrix: Water
Analysis Batch: 527743

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 526039

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
1-Methylnaphthalene	20.0	14.9		ug/L		75	47 - 120	17	20	
2-Methylnaphthalene	20.0	16.5		ug/L		83	43 - 120	13	20	
Acenaphthene	20.0	17.3		ug/L		87	60 - 132	16	29	
Acenaphthylene	20.0	16.9		ug/L		84	54 - 126	35	45	
Anthracene	20.0	18.2		ug/L		91	43 - 120	15	40	
Benzo[a]anthracene	20.0	17.8		ug/L		89	42 - 133	15	32	
Benzo[a]pyrene	20.0	18.6		ug/L		93	32 - 148	13	43	
Benzo[b]fluoranthene	20.0	17.6		ug/L		88	42 - 140	12	43	
Benzo[g,h,i]perylene	20.0	17.0		ug/L		85	1 - 195	13	61	
Benzo[k]fluoranthene	20.0	18.0		ug/L		90	25 - 146	13	38	
Chrysene	20.0	17.4		ug/L		87	44 - 140	15	53	
Dibenz(a,h)anthracene	20.0	17.8		ug/L		89	1 - 200	13	75	
Fluoranthene	20.0	19.9		ug/L		99	43 - 121	16	40	
Fluorene	20.0	18.3		ug/L		92	70 - 120	16	23	
Indeno[1,2,3-cd]pyrene	20.0	18.1		ug/L		90	1 - 151	13	60	
Naphthalene	20.0	15.1		ug/L		75	36 - 120	14	39	
Phenanthrene	20.0	18.6		ug/L		93	65 - 120	16	24	
Pyrene	20.0	18.2		ug/L		91	70 - 120	14	30	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	84		28 - 127
2-Fluorobiphenyl (Surr)	75		31 - 120
2-Fluorophenol (Surr)	52		17 - 120
Nitrobenzene-d5 (Surr)	66		27 - 120
Phenol-d6 (Surr)	34		10 - 120
p-Terphenyl-d14 (Surr)	81		45 - 120

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

Lab Sample ID: MB 570-527285/10
Matrix: Water
Analysis Batch: 527285

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

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

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

Lab Sample ID: MB 570-527285/10
Matrix: Water
Analysis Batch: 527285

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

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

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

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

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

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

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

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

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

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

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

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	10.0	10.8		ug/L		108	50 - 150

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

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

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	<10		400	379		ug/L		95	68 - 122

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

QC Sample Results

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

Job ID: 380-131727-1
SDG: Weekly

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

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

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	382		ug/L		96	68 - 122	1	18
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	98		38 - 134								

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

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

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

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

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

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

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

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

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

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

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

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	0.0200	<0.020		mg/L		98	50 - 150		

QC Sample Results

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

Job ID: 380-131727-1
 SDG: Weekly

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

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

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

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

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

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

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

Lab Sample ID: 380-131757-B-1-B MSD
Matrix: Water
Analysis Batch: 529047

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

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

QC Association Summary

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

Job ID: 380-131727-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 130179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131727-1	Ka'amilo Wells	Total/NA	Water	525.2	
MB 380-130179/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-130179/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-130179/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-130179/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-131727-1 MS	Ka'amilo Wells	Total/NA	Water	525.2	
380-130062-AG-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 130315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131727-1	Ka'amilo Wells	Total/NA	Water	525.2	130179
MB 380-130179/21-A	Method Blank	Total/NA	Water	525.2	130179
LCS 380-130179/23-A	Lab Control Sample	Total/NA	Water	525.2	130179
LCSD 380-130179/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	130179
MRL 380-130179/22-A	Lab Control Sample	Total/NA	Water	525.2	130179
380-131727-1 MS	Ka'amilo Wells	Total/NA	Water	525.2	130179
380-130062-AG-1-A DU	Duplicate	Total/NA	Water	525.2	130179

Prep Batch: 526039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131727-1	Ka'amilo Wells	Total/NA	Water	625.1	
MB 570-526039/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-526039/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-526039/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 527743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131727-1	Ka'amilo Wells	Total/NA	Water	625.1 SIM	526039
MB 570-526039/1-A	Method Blank	Total/NA	Water	625.1 SIM	526039
LCS 570-526039/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	526039
LCSD 570-526039/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	526039

Analysis Batch: 528074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131727-1	Ka'amilo Wells	Total/NA	Water	625.1	526039
MB 570-526039/1-A	Method Blank	Total/NA	Water	625.1	526039

GC VOA

Analysis Batch: 527285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131727-1	Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
380-131727-2	TB: Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
MB 570-527285/10	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-527285/1008	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-527285/9	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-527285/1003	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-131757-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-131757-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

QC Association Summary

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

Job ID: 380-131727-1
 SDG: Weekly

GC Semi VOA

Prep Batch: 527005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131727-1	Ka'amilo Wells	Total/NA	Water	3510C	
MB 570-527005/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-527005/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-527005/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-527005/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-131757-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-131757-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 529047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-131727-1	Ka'amilo Wells	Total/NA	Water	8015B	527005
MB 570-527005/1-A	Method Blank	Total/NA	Water	8015B	527005
LCS 570-527005/2-A	Lab Control Sample	Total/NA	Water	8015B	527005
LCSD 570-527005/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	527005
MRL 570-527005/4-A	Lab Control Sample	Total/NA	Water	8015B	527005
380-131757-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	527005
380-131757-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	527005

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Lab Chronicle

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

Job ID: 380-131727-1
 SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-131727-1

Date Collected: 01/21/25 11:22

Matrix: Water

Date Received: 01/23/25 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			130179	OTM3	EA POM	01/24/25 07:38
Total/NA	Analysis	525.2		1	130315	Q8LA	EA POM	01/24/25 16:47
Total/NA	Prep	625.1			526039	UD4J	EET CAL 4	01/23/25 18:52
Total/NA	Analysis	625.1		1	528074	PQS1	EET CAL 4	01/31/25 00:05
Total/NA	Prep	625.1			526039	UD4J	EET CAL 4	01/23/25 18:52
Total/NA	Analysis	625.1 SIM		1	527743	PQS1	EET CAL 4	01/29/25 21:12
Total/NA	Analysis	8015B GRO LL		1	527285	W4LC	EET CAL 4	01/28/25 20:22
Total/NA	Prep	3510C			527005	TVD6	EET CAL 4	01/27/25 18:31
Total/NA	Analysis	8015B		1	529047	H6FE	EET CAL 4	02/03/25 02:13

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-131727-2

Date Collected: 01/21/25 11:22

Matrix: Water

Date Received: 01/23/25 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	527285	W4LC	EET CAL 4	01/28/25 22:48

Laboratory References:

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

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

Accreditation/Certification Summary

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

Job ID: 380-131727-1
 SDG: Weekly

Laboratory: Eurofins Eaton Analytical Pomona

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-25

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

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

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
Arizona	State	AZ0830	11-16-25
Arkansas DEQ	State	88-01672	07-02-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-25

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-131727-1
SDG: Weekly

Laboratory: Eurofins Calscience (Continued)

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

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

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Method Summary

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

Job ID: 380-131727-1
SDG: Weekly

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	EET CAL 4
8015B GRO LL	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC) Low Level	SW846	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
525.2	Extraction of Semivolatile Compounds	EPA	EA POM
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4

Protocol References:

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

EPA = US Environmental Protection Agency

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

Laboratory References:

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

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

Sample Summary

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

Job ID: 380-131727-1
SDG: Weekly

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
380-131727-1	Ka'amilo Wells	Water	01/21/25 11:22	01/23/25 09:37
380-131727-2	TB: Ka'amilo Wells	Water	01/21/25 11:22	01/23/25 09:37

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Chain of Custody Record

Client Information		Lab P/N: Arada Rachelle	Carrier Tracking No(s)	COC No: 380-28005-2757 1
Client Contact: Dr. Ron Fenstermacher		E-Mail: Rachelle.Arada@et.eurofins.com	State of Origin:	Page: Page 1 of 1
Company: City & County of Honolulu		FWSID:		Job #:
Address: 630 South Beretania Street Chemistry Lab				Preservation Codes: R - NaThioSO4 RA - NaThio/HCl Q - NaZSO3 QA - NaZSO3/HCl Y - Trizma I - NH4 Acetate
City: Honolulu				Other:
State, Zip: HI, 96843				
Phone: 808-748-5091 (Tel)				
Email: RFENSTERMACHER@hbws.org				
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill				
Site: Hawaii				

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Preservation Code	Matrix (Water, Solid, Organic, etc)	Field Filtered Sample (Yes or No)		Perform IMS/MSD (Yes or No)		Analysis Requested		Special Instructions/Note:			
						R	Q	RA	Q	OA	Y		I	Total Number of Containers	
Ka'amilo Wells	21-Jan-2025	1122	G		Water			625.1, 625.1, SIM		2	3	2	2		
Ka'amilo Wells (Matrix Spike)					Water										
Ka'amilo Wells (Matrix Spike Duplicate)					Water										
TB, Ka'amilo Wells	21-Jan-2025	1122			Water					2					380-131727 COC

<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested I, II, III, IV, Other (specify)		Special Instructions/QC Requirements: OFFIC 0684 817 277160684 8128 Method of Shipment: FED EX 3716 0684 8139	
Empty Kit Relinquished by:		Received by: <i>[Signature]</i> Date/Time: 01/23/25 09:37 Company: FEAR	
Relinquished by:		Received by: <i>[Signature]</i> Date/Time: _____ Company: _____	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: (751A) 01.6-0.0=1.6 22.5-0.0=2.5 33.4-0.0=3.4 BEU FROZEN	



Eurofins Eaton Analytical Pomona

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

Chain of Custody Record



Loc: 380
E 131727

Client Information (Sub Contract Lab)		Sampler: N/A		Lab PM: Arada, Rachele		Carrier Tracking No(s): N/A		COC No: 380-185193.1			
Client Contact: Shipping/Receiving		Phone: N/A		E-Mail: Rachele.Arada@et.eurofinsus.com		State of Origin: Hawaii		Page: Page 1 of 1			
Company: Eurofins Environment Testing Southwest				Accreditations Required (See note): State - Hawaii				Job #: 380-131727-1			
Address: 2841 Dow Avenue, Suite 100, Tustin, CA, 92780		Due Date Requested: 2/5/2025		Analysis Requested						Preservation Codes:	
City: Tustin		TAT Requested (days): N/A		Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8016B_DRO_LL_CS/3510C_LL_HNL Ranges: C10- C24/C24-C36/C8-C18	8016B_GRO_LL/5030C (MOD) GRO	625_1_SIMI625_Prep (MOD) Extended PAH List	Total Number of Containers	Other: N/A	Special Instructions/Note:
State, Zip: CA, 92780		PO #: N/A									
Phone: 714-895-5494(Tel)		WO #: N/A									
Email: N/A		Project #: 38001111									
Project Name: RED-HILL		SSOW#: N/A									
Site: Honolulu BWS Sites											
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)						
				Preservation Code:							
Ka'amilo Wells (380-131727-1)		1/21/25	11:22 Hawaiian	G	Water		X	X	X	7	MRLs are needed. Confirm any hits >RL.
TB: Ka'amilo Wells (380-131727-2)		1/21/25	11:22 Hawaiian	G	Water			X		2	MRLs are needed.
<p>Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.</p>											
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Unconfirmed						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested: I, II, III, IV, Other (specify)			Primary Deliverable Rank: 2			Special Instructions/QC Requirements:					
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:					
Relinquished by:		Date/Time: 1/23/25 15:00		Company: EOMP		Received by:		Date/Time: 1/23/25 15:00		Company: WP	
Relinquished by:		Date/Time: 1/23/25 1555		Company: WP		Received by:		Date/Time: 1/23/25 1555		Company: PC	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.8 / 1.0 SCIA							

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-131727-1

SDG Number: Weekly

Login Number: 131727

List Number: 1

Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

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



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-131727-1

SDG Number: Weekly

Login Number: 131727

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 01/23/25 05:42 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	1.0
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

