

ANALYTICAL REPORT

PREPARED FOR

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

Generated 1/7/2025 1:25:52 PM

JOB DESCRIPTION

RED-HILL
Weekly
RUSH Weekly Red Hill

JOB NUMBER

380-126976-1

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



Generated
1/7/2025 1:25:52 PM

Authorized for release by
Rachelle Arada, Project Manager
Rachelle.Arada@et.eurofinsus.com
(626)386-1106



Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Action Limit Summary	11
Surrogate Summary	12
QC Sample Results	14
QC Association Summary	30
Lab Chronicle	32
Certification Summary	33
Method Summary	35
Sample Summary	36
Chain of Custody	37
Receipt Checklists	39

Definitions/Glossary

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

Job ID: 380-126976-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

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

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: 380-126976-1

Job ID: 380-126976-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-126976-1

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 12/18/2024 9:55 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 0.2°C and 3.3°C.

Receipt Exceptions

One or more containers for the following sample was received broken or leaking: TB: Ka'amilo Wells (380-126976-2). 1 of 2 TB vials received broken.

GC/MS Semi VOA

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

Gasoline Range Organics

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

Diesel Range Organics

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

Detection Summary

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

Job ID: 380-126976-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-126976-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.019		0.0097	ug/L	1		525.2	Total/NA

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-126976-2

No Detections.

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

This Detection Summary does not include radiochemical test results.

Client Sample Results

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

Job ID: 380-126976-1
 SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-126976-1

Date Collected: 12/16/24 11:15

Matrix: Water

Date Received: 12/18/24 09:55

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		12/19/24 07:24	12/19/24 17:59	1
2,4'-DDD	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
2,4'-DDE	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
2,4'-DDT	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
2-Methylnaphthalene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
4,4'-DDD	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
4,4'-DDE	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
4,4'-DDT	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Acenaphthene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Acenaphthylene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Acetochlor	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Alachlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
alpha-BHC	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
alpha-Chlordane	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Anthracene	<0.019		0.019	ug/L		12/19/24 07:24	12/19/24 17:59	1
Atrazine	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Benz(a)anthracene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Benzo[a]pyrene	<0.019		0.019	ug/L		12/19/24 07:24	12/19/24 17:59	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		12/19/24 07:24	12/19/24 17:59	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		12/19/24 07:24	12/19/24 17:59	1
beta-BHC	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		12/19/24 07:24	12/19/24 17:59	1
Bromacil	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Butachlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Butylbenzylphthalate	<0.49		0.49	ug/L		12/19/24 07:24	12/19/24 17:59	1
Chlorobenzilate	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Chloroneb	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Chlorpyrifos	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Chrysene	<0.019		0.019	ug/L		12/19/24 07:24	12/19/24 17:59	1
delta-BHC	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		12/19/24 07:24	12/19/24 17:59	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Dieldrin	0.019		0.0097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Diethylphthalate	<0.49		0.49	ug/L		12/19/24 07:24	12/19/24 17:59	1
Dimethylphthalate	<0.49		0.49	ug/L		12/19/24 07:24	12/19/24 17:59	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		12/19/24 07:24	12/19/24 17:59	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Endosulfan sulfate	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Endrin	<0.0097		0.0097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Endrin aldehyde	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
EPTC	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Fluoranthene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1

Client Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-126976-1

Date Collected: 12/16/24 11:15

Matrix: Water

Date Received: 12/18/24 09:55

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		12/19/24 07:24	12/19/24 17:59	1
gamma-Chlordane	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Heptachlor	<0.0097		0.0097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Hexachlorobenzene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Isophorone	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Lindane	<0.0097		0.0097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Malathion	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Methoxychlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Metolachlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Molinate	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Naphthalene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Parathion	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Phenanthrene	<0.039		0.039	ug/L		12/19/24 07:24	12/19/24 17:59	1
Propachlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Pyrene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Simazine	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Terbacil	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Terbutylazine	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Thiobencarb	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		12/19/24 07:24	12/19/24 17:59	1
trans-Nonachlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 17:59	1
Trifluralin	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 17:59	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	12/19/24 07:24	12/19/24 17:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	102		70 - 130	12/19/24 07:24	12/19/24 17:59	1
Perylene-d12	94		70 - 130	12/19/24 07:24	12/19/24 17:59	1
Triphenylphosphate	95		70 - 130	12/19/24 07:24	12/19/24 17:59	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		12/19/24 18:36	12/20/24 13:05	1
2-Methylnaphthalene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Acenaphthene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Acenaphthylene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Anthracene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Benzo[a]anthracene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Benzo[a]pyrene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Chrysene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Fluoranthene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-126976-1

Date Collected: 12/16/24 11:15

Matrix: Water

Date Received: 12/18/24 09:55

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		12/19/24 18:36	12/20/24 13:05	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Naphthalene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Phenanthrene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1
Pyrene	<0.19		0.19	ug/L		12/19/24 18:36	12/20/24 13:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		28 - 127	12/19/24 18:36	12/20/24 13:05	1
2-Fluorobiphenyl (Surr)	78		31 - 120	12/19/24 18:36	12/20/24 13:05	1
2-Fluorophenol (Surr)	46		17 - 120	12/19/24 18:36	12/20/24 13:05	1
Nitrobenzene-d5 (Surr)	84		27 - 120	12/19/24 18:36	12/20/24 13:05	1
Phenol-d6 (Surr)	32		10 - 120	12/19/24 18:36	12/20/24 13:05	1
p-Terphenyl-d14 (Surr)	83		45 - 120	12/19/24 18:36	12/20/24 13:05	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	12/19/24 18:36	01/06/25 10:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	79		33 - 139	12/19/24 18:36	01/06/25 10:13	1
2-Fluorobiphenyl (Surr)	79		33 - 126	12/19/24 18:36	01/06/25 10:13	1
2-Fluorophenol (Surr)	57		12 - 120	12/19/24 18:36	01/06/25 10:13	1
Nitrobenzene-d5 (Surr)	98		36 - 120	12/19/24 18:36	01/06/25 10:13	1
Phenol-d6 (Surr)	34		10 - 120	12/19/24 18:36	01/06/25 10:13	1
p-Terphenyl-d14 (Surr)	88		47 - 131	12/19/24 18:36	01/06/25 10:13	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			12/27/24 13:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	62		38 - 134		12/27/24 13:05	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		12/20/24 15:05	12/22/24 23:26	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		12/20/24 15:05	12/22/24 23:26	1
C8-C18	<26		26	ug/L		12/20/24 15:05	12/22/24 23:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	102		60 - 130	12/20/24 15:05	12/22/24 23:26	1

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-126976-2

Date Collected: 12/16/24 11:15

Matrix: Water

Date Received: 12/18/24 09:55

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			12/27/24 16:09	1

Client Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-126976-2

Date Collected: 12/16/24 11:15

Matrix: Water

Date Received: 12/18/24 09:55

<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)	59		38 - 134		12/27/24 16:09	1

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

Action Limit Summary

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

Job ID: 380-126976-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-126976-1

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	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Surrogate Summary

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

Job ID: 380-126976-1
SDG: Weekly

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)
380-126976-1	Ka'amilo Wells	102	94	95
380-126986-I-1-A MS	Matrix Spike	100	96	102
380-126986-J-1-A DU	Duplicate	101	97	99
LCS 380-124463/23-A	Lab Control Sample	101	90	102
LCSD 380-124463/24-A	Lab Control Sample Dup	101	91	103
MB 380-124463/21-A	Method Blank	101	89	100
MRL 380-124463/22-A	Lab Control Sample	99	84	98

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)
380-126976-1	Ka'amilo Wells	79	79	57	98	34	88
MB 570-515932/1-A	Method Blank	80	76	63	99	40	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)

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)
380-126976-1	Ka'amilo Wells	89	78	46	84	32	83
LCS 570-515932/2-A	Lab Control Sample	84	79	57	71	40	84
LCSD 570-515932/3-A	Lab Control Sample Dup	88	82	58	74	40	90
MB 570-515932/1-A	Method Blank	115	80	49	87	31	81

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: 380-126976-1
 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)
380-126976-1	Ka'amilo Wells	62
380-126976-2	TB: Ka'amilo Wells	59
380-126982-C-1 MS	Matrix Spike	78
380-126982-C-1 MSD	Matrix Spike Duplicate	75
380-126986-C-1 MS	Matrix Spike	73
380-126986-C-1 MSD	Matrix Spike Duplicate	74
LCS 570-518135/4	Lab Control Sample	76
LCSD 570-518135/5	Lab Control Sample Dup	77
MB 570-518135/6	Method Blank	61
MRL 570-518135/3	Lab Control Sample	69

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)
380-126976-1	Ka'amilo Wells	102
380-126982-B-1-A MS	Matrix Spike	108
380-126982-B-1-B MSD	Matrix Spike Duplicate	109
LCS 570-516519/2-A	Lab Control Sample	108
LCSD 570-516519/3-A	Lab Control Sample Dup	114
MB 570-516519/1-A	Method Blank	109
MRL 570-516519/4-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: 380-126976-1
 SDG: Weekly

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

Lab Sample ID: MB 380-124463/21-A
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124463

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
2,4'-DDD	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
2,4'-DDE	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
2,4'-DDT	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
2-Methylnaphthalene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
4,4'-DDD	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
4,4'-DDE	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
4,4'-DDT	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Acenaphthene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Acenaphthylene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Acetochlor	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Alachlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
alpha-BHC	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
alpha-Chlordane	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Anthracene	<0.019		0.019	ug/L		12/19/24 07:24	12/19/24 16:36	1
Atrazine	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Benz(a)anthracene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Benzo[a]pyrene	<0.019		0.019	ug/L		12/19/24 07:24	12/19/24 16:36	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		12/19/24 07:24	12/19/24 16:36	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		12/19/24 07:24	12/19/24 16:36	1
beta-BHC	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		12/19/24 07:24	12/19/24 16:36	1
Bromacil	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Butachlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Butylbenzylphthalate	<0.49		0.49	ug/L		12/19/24 07:24	12/19/24 16:36	1
Chlorobenzilate	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Chloroneb	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Chlorpyrifos	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Chrysene	<0.019		0.019	ug/L		12/19/24 07:24	12/19/24 16:36	1
delta-BHC	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		12/19/24 07:24	12/19/24 16:36	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Dieldrin	<0.0097		0.0097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Diethylphthalate	<0.49		0.49	ug/L		12/19/24 07:24	12/19/24 16:36	1
Dimethylphthalate	<0.49		0.49	ug/L		12/19/24 07:24	12/19/24 16:36	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		12/19/24 07:24	12/19/24 16:36	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Endosulfan sulfate	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Endrin	<0.0097		0.0097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Endrin aldehyde	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
EPTC	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: MB 380-124463/21-A
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124463

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Fluorene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
gamma-Chlordane	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Heptachlor	<0.0097		0.0097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Hexachlorobenzene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Isophorone	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Lindane	<0.0097		0.0097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Malathion	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Methoxychlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Metolachlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Molinate	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Naphthalene	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Parathion	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Phenanthrene	<0.039		0.039	ug/L		12/19/24 07:24	12/19/24 16:36	1
Propachlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Pyrene	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Simazine	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Terbacil	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Terbutylazine	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Thiobencarb	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		12/19/24 07:24	12/19/24 16:36	1
trans-Nonachlor	<0.049		0.049	ug/L		12/19/24 07:24	12/19/24 16:36	1
Trifluralin	<0.097		0.097	ug/L		12/19/24 07:24	12/19/24 16:36	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	12/19/24 07:24	12/19/24 16:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	101		70 - 130	12/19/24 07:24	12/19/24 16:36	1
Perylene-d12	89		70 - 130	12/19/24 07:24	12/19/24 16:36	1
Triphenylphosphate	100		70 - 130	12/19/24 07:24	12/19/24 16:36	1

Lab Sample ID: LCS 380-124463/23-A
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.95	1.83		ug/L		94	70 - 130
2,4'-DDD	1.95	1.99		ug/L		102	70 - 130
2,4'-DDE	1.95	1.95		ug/L		100	70 - 130
2,4'-DDT	1.95	1.82		ug/L		93	70 - 130
2,4-Dinitrotoluene	1.95	1.57		ug/L		80	70 - 130
2,6-Dinitrotoluene	1.95	1.72		ug/L		88	70 - 130
2-Methylnaphthalene	1.95	1.83		ug/L		94	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: LCS 380-124463/23-A
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.95	2.01		ug/L		103	70 - 130
4,4'-DDE	1.95	1.94		ug/L		100	70 - 130
4,4'-DDT	1.95	1.79		ug/L		92	70 - 130
Acenaphthene	1.95	1.80		ug/L		92	70 - 130
Acenaphthylene	1.95	1.85		ug/L		95	70 - 130
Acetochlor	1.95	2.10		ug/L		108	70 - 130
Alachlor	1.95	2.12		ug/L		109	70 - 130
alpha-BHC	1.95	1.89		ug/L		97	70 - 130
alpha-Chlordane	1.95	1.89		ug/L		97	70 - 130
Anthracene	1.95	1.64		ug/L		84	70 - 130
Atrazine	1.95	1.92		ug/L		99	70 - 130
Benz(a)anthracene	1.95	1.81		ug/L		93	70 - 130
Benzo[a]pyrene	1.95	1.65		ug/L		84	70 - 130
Benzo[b]fluoranthene	1.95	1.80		ug/L		93	70 - 130
Benzo[g,h,i]perylene	1.95	1.92		ug/L		98	70 - 130
Benzo[k]fluoranthene	1.95	1.95		ug/L		100	70 - 130
beta-BHC	1.95	1.99		ug/L		102	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	1.94		ug/L		100	70 - 130
Bromacil	1.95	1.90		ug/L		98	70 - 130
Butachlor	1.95	1.97		ug/L		101	70 - 130
Butylbenzylphthalate	1.95	1.97		ug/L		101	70 - 130
Chlorobenzilate	1.95	1.68		ug/L		86	70 - 130
Chloroneb	1.95	2.04		ug/L		104	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.02		ug/L		104	70 - 130
Chlorpyrifos	1.95	2.03		ug/L		104	70 - 130
Chrysene	1.95	1.91		ug/L		98	70 - 130
delta-BHC	1.95	1.90		ug/L		98	70 - 130
Di(2-ethylhexyl)adipate	1.95	1.84		ug/L		94	70 - 130
Dibenz(a,h)anthracene	1.95	1.87		ug/L		96	70 - 130
Diclorvos (DDVP)	1.95	1.87		ug/L		96	70 - 130
Dieldrin	1.95	1.88		ug/L		97	70 - 130
Diethylphthalate	1.95	1.93		ug/L		99	70 - 130
Dimethylphthalate	1.95	1.89		ug/L		97	70 - 130
Di-n-butyl phthalate	3.90	3.89		ug/L		100	70 - 130
Di-n-octyl phthalate	1.95	1.87		ug/L		96	70 - 130
Endosulfan I (Alpha)	1.95	1.93		ug/L		99	70 - 130
Endosulfan II (Beta)	1.95	1.99		ug/L		102	70 - 130
Endosulfan sulfate	1.95	1.86		ug/L		95	70 - 130
Endrin	1.95	2.13		ug/L		109	70 - 130
Endrin aldehyde	1.95	1.71		ug/L		88	60 - 130
EPTC	1.95	1.96		ug/L		101	70 - 130
Fluoranthene	1.95	2.00		ug/L		103	70 - 130
Fluorene	1.95	1.88		ug/L		96	70 - 130
gamma-Chlordane	1.95	1.92		ug/L		99	70 - 130
Heptachlor	1.95	2.02		ug/L		103	70 - 130
Heptachlor epoxide (isomer B)	1.95	1.92		ug/L		99	70 - 130
Hexachlorobenzene	1.95	1.77		ug/L		91	70 - 130
Hexachlorocyclopentadiene	1.95	1.74		ug/L		89	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	1.71		ug/L		88	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: LCS 380-124463/23-A
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isophorone	1.95	1.88		ug/L		96	70 - 130
Lindane	1.95	1.89		ug/L		97	70 - 130
Malathion	1.95	1.95		ug/L		100	70 - 130
Methoxychlor	1.95	1.78		ug/L		91	70 - 130
Metolachlor	1.95	1.99		ug/L		102	70 - 130
Molinate	1.95	1.96		ug/L		101	70 - 130
Naphthalene	1.95	1.90		ug/L		97	70 - 130
Parathion	1.95	1.87		ug/L		96	70 - 130
Pendimethalin (Penoxaline)	1.95	1.65		ug/L		84	70 - 130
Phenanthrene	1.95	1.81		ug/L		93	70 - 130
Propachlor	1.95	2.07		ug/L		106	70 - 130
Pyrene	1.95	1.98		ug/L		102	70 - 130
Simazine	1.95	2.06		ug/L		106	70 - 130
Terbacil	1.95	2.02		ug/L		104	70 - 130
Terbutylazine	1.95	2.12		ug/L		109	70 - 130
Thiobencarb	1.95	2.08		ug/L		107	70 - 130
trans-Nonachlor	1.95	1.87		ug/L		96	70 - 130
Trifluralin	1.95	1.66		ug/L		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	101		70 - 130
Perylene-d12	90		70 - 130
Triphenylphosphate	102		70 - 130

Lab Sample ID: LCSD 380-124463/24-A
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.95	1.87		ug/L		96	70 - 130	2	20
2,4'-DDD	1.95	2.05		ug/L		105	70 - 130	3	20
2,4'-DDE	1.95	2.02		ug/L		104	70 - 130	4	20
2,4'-DDT	1.95	1.90		ug/L		97	70 - 130	4	20
2,4-Dinitrotoluene	1.95	1.69		ug/L		87	70 - 130	7	20
2,6-Dinitrotoluene	1.95	1.84		ug/L		95	70 - 130	7	20
2-Methylnaphthalene	1.95	1.88		ug/L		96	70 - 130	3	20
4,4'-DDD	1.95	2.09		ug/L		108	70 - 130	4	20
4,4'-DDE	1.95	1.99		ug/L		102	70 - 130	2	20
4,4'-DDT	1.95	1.88		ug/L		97	70 - 130	5	20
Acenaphthene	1.95	1.85		ug/L		95	70 - 130	3	20
Acenaphthylene	1.95	1.90		ug/L		98	70 - 130	3	20
Acetochlor	1.95	2.19		ug/L		112	70 - 130	4	20
Alachlor	1.95	2.20		ug/L		113	70 - 130	4	20
alpha-BHC	1.95	1.95		ug/L		100	70 - 130	3	20
alpha-Chlordane	1.95	1.98		ug/L		102	70 - 130	5	20
Anthracene	1.95	1.70		ug/L		87	70 - 130	3	20
Atrazine	1.95	1.98		ug/L		102	70 - 130	3	20
Benz(a)anthracene	1.95	1.89		ug/L		97	70 - 130	4	20

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-124463/24-A
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
Benzo[a]pyrene	1.95	1.73		ug/L		89	70 - 130	5	20	
Benzo[b]fluoranthene	1.95	1.88		ug/L		97	70 - 130	4	20	
Benzo[g,h,i]perylene	1.95	1.95		ug/L		100	70 - 130	2	20	
Benzo[k]fluoranthene	1.95	2.00		ug/L		103	70 - 130	3	20	
beta-BHC	1.95	2.04		ug/L		105	70 - 130	2	20	
Bis(2-ethylhexyl) phthalate	1.95	1.96		ug/L		101	70 - 130	1	20	
Bromacil	1.95	1.97		ug/L		101	70 - 130	4	20	
Butachlor	1.95	2.05		ug/L		105	70 - 130	4	20	
Butylbenzylphthalate	1.95	2.05		ug/L		105	70 - 130	4	20	
Chlorobenzilate	1.95	1.76		ug/L		90	70 - 130	5	20	
Chloroneb	1.95	2.19		ug/L		113	70 - 130	7	20	
Chlorothalonil (Draconil, Bravo)	1.95	2.10		ug/L		108	70 - 130	4	20	
Chlorpyrifos	1.95	2.09		ug/L		107	70 - 130	3	20	
Chrysene	1.95	1.99		ug/L		102	70 - 130	4	20	
delta-BHC	1.95	1.97		ug/L		101	70 - 130	3	20	
Di(2-ethylhexyl)adipate	1.95	1.91		ug/L		98	70 - 130	4	20	
Dibenz(a,h)anthracene	1.95	1.95		ug/L		100	70 - 130	4	20	
Diclorvos (DDVP)	1.95	1.91		ug/L		98	70 - 130	2	20	
Dieldrin	1.95	1.95		ug/L		100	70 - 130	4	20	
Diethylphthalate	1.95	1.99		ug/L		102	70 - 130	3	20	
Dimethylphthalate	1.95	1.96		ug/L		101	70 - 130	4	20	
Di-n-butyl phthalate	3.89	4.07		ug/L		105	70 - 130	5	20	
Di-n-octyl phthalate	1.95	1.87		ug/L		96	70 - 130	0	20	
Endosulfan I (Alpha)	1.95	1.97		ug/L		101	70 - 130	2	20	
Endosulfan II (Beta)	1.95	2.02		ug/L		104	70 - 130	2	20	
Endosulfan sulfate	1.95	1.90		ug/L		97	70 - 130	2	20	
Endrin	1.95	2.20		ug/L		113	70 - 130	3	20	
Endrin aldehyde	1.95	1.77		ug/L		91	60 - 130	3	20	
EPTC	1.95	2.03		ug/L		104	70 - 130	3	20	
Fluoranthene	1.95	2.07		ug/L		106	70 - 130	4	20	
Fluorene	1.95	1.91		ug/L		98	70 - 130	2	20	
gamma-Chlordane	1.95	2.02		ug/L		104	70 - 130	5	20	
Heptachlor	1.95	2.11		ug/L		108	70 - 130	4	20	
Heptachlor epoxide (isomer B)	1.95	1.98		ug/L		102	70 - 130	3	20	
Hexachlorobenzene	1.95	1.81		ug/L		93	70 - 130	3	20	
Hexachlorocyclopentadiene	1.95	1.81		ug/L		93	70 - 130	4	20	
Indeno[1,2,3-cd]pyrene	1.95	1.79		ug/L		92	70 - 130	4	20	
Isophorone	1.95	1.93		ug/L		99	70 - 130	3	20	
Lindane	1.95	1.94		ug/L		100	70 - 130	2	20	
Malathion	1.95	2.01		ug/L		103	70 - 130	3	20	
Methoxychlor	1.95	1.87		ug/L		96	70 - 130	5	20	
Metolachlor	1.95	2.07		ug/L		106	70 - 130	4	20	
Molinate	1.95	2.03		ug/L		104	70 - 130	3	20	
Naphthalene	1.95	1.95		ug/L		100	70 - 130	3	20	
Parathion	1.95	1.97		ug/L		101	70 - 130	5	20	
Pendimethalin (Penoxaline)	1.95	1.76		ug/L		90	70 - 130	7	20	
Phenanthrene	1.95	1.86		ug/L		96	70 - 130	3	20	
Propachlor	1.95	2.12		ug/L		109	70 - 130	3	20	
Pyrene	1.95	2.06		ug/L		106	70 - 130	4	20	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-124463/24-A
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Simazine	1.95	2.16		ug/L		111	70 - 130	5	20
Terbacil	1.95	2.06		ug/L		106	70 - 130	2	20
Terbuthylazine	1.95	2.17		ug/L		111	70 - 130	2	20
Thiobencarb	1.95	2.15		ug/L		110	70 - 130	3	20
trans-Nonachlor	1.95	1.94		ug/L		100	70 - 130	4	20
Trifluralin	1.95	1.75		ug/L		90	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	101		70 - 130
Perylene-d12	91		70 - 130
Triphenylphosphate	103		70 - 130

Lab Sample ID: MRL 380-124463/22-A
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0969	0.103		ug/L		106	50 - 150
2,4'-DDD	0.0969	0.0840	J	ug/L		87	50 - 150
2,4'-DDE	0.0969	0.0928	J	ug/L		96	50 - 150
2,4'-DDT	0.0969	0.0949	J	ug/L		98	50 - 150
2,4-Dinitrotoluene	0.0969	0.0819	J	ug/L		84	50 - 150
2,6-Dinitrotoluene	0.0969	0.0862	J	ug/L		89	50 - 150
2-Methylnaphthalene	0.0969	0.0974		ug/L		100	50 - 150
4,4'-DDD	0.0969	0.0948	J	ug/L		98	50 - 150
4,4'-DDE	0.0969	0.0906	J	ug/L		93	50 - 150
4,4'-DDT	0.0969	0.0958	J	ug/L		99	50 - 150
Acenaphthene	0.0969	0.0873	J	ug/L		90	50 - 150
Acenaphthylene	0.0969	0.0850	J	ug/L		88	50 - 150
Acetochlor	0.0969	0.105		ug/L		108	50 - 150
Alachlor	0.0485	0.0477	J	ug/L		99	50 - 150
alpha-BHC	0.0969	0.103		ug/L		106	50 - 150
alpha-Chlordane	0.0242	<0.028		ug/L		91	50 - 150
Anthracene	0.0194	0.0192		ug/L		99	50 - 150
Atrazine	0.0485	0.0530		ug/L		109	50 - 150
Benz(a)anthracene	0.0485	0.0465	J	ug/L		96	50 - 150
Benzo[a]pyrene	0.0194	0.0147	J	ug/L		76	50 - 150
Benzo[b]fluoranthene	0.0194	0.0147	J	ug/L		76	50 - 150
Benzo[g,h,i]perylene	0.0485	0.0362	J	ug/L		75	50 - 150
Benzo[k]fluoranthene	0.0194	0.0160	J	ug/L		82	50 - 150
beta-BHC	0.0969	0.107		ug/L		111	50 - 150
Bis(2-ethylhexyl) phthalate	0.582	0.489	J	ug/L		84	50 - 150
Bromacil	0.0969	0.0951	J	ug/L		98	50 - 150
Butachlor	0.0485	0.0578		ug/L		119	50 - 150
Butylbenzylphthalate	0.485	0.469	J	ug/L		97	50 - 150
Chlorobenzilate	0.0969	0.0906	J	ug/L		93	50 - 150
Chloroneb	0.0969	0.0659	J	ug/L		68	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0969	0.0863	J	ug/L		89	50 - 150

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: MRL 380-124463/22-A
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorpyrifos	0.0485	0.0470	J	ug/L		97	50 - 150
Chrysene	0.0194	0.0213		ug/L		110	50 - 150
delta-BHC	0.0969	0.106		ug/L		109	50 - 150
Di(2-ethylhexyl)adipate	0.582	0.522	J	ug/L		90	50 - 150
Dibenz(a,h)anthracene	0.0485	<0.032		ug/L		66	50 - 150
Diclorvos (DDVP)	0.0485	0.0516		ug/L		106	50 - 150
Dieldrin	0.00969	0.0109		ug/L		112	50 - 150
Diethylphthalate	0.485	0.472	J	ug/L		97	50 - 150
Dimethylphthalate	0.485	0.464	J	ug/L		96	50 - 150
Di-n-butyl phthalate	0.485	0.459	J	ug/L		95	49 - 243
Di-n-octyl phthalate	0.0969	0.0596	J	ug/L		61	50 - 150
Endosulfan I (Alpha)	0.0969	0.0718	J	ug/L		74	50 - 150
Endosulfan II (Beta)	0.0969	0.106		ug/L		109	50 - 150
Endosulfan sulfate	0.0969	0.0877	J	ug/L		90	50 - 150
Endrin	0.00969	0.0105		ug/L		108	50 - 150
Endrin aldehyde	0.0969	0.0879	J	ug/L		91	50 - 150
EPTC	0.0969	0.0911	J	ug/L		94	50 - 150
Fluoranthene	0.0969	0.0907	J	ug/L		94	50 - 150
Fluorene	0.0485	<0.048		ug/L		94	50 - 150
gamma-Chlordane	0.0242	0.0202	J	ug/L		83	50 - 150
Heptachlor	0.00969	0.00933	J	ug/L		96	50 - 150
Heptachlor epoxide (isomer B)	0.00969	0.0106		ug/L		109	50 - 150
Hexachlorobenzene	0.0485	0.0429	J	ug/L		88	50 - 150
Hexachlorocyclopentadiene	0.0485	0.0554		ug/L		114	50 - 150
Indeno[1,2,3-cd]pyrene	0.0485	0.0299	J	ug/L		62	50 - 150
Isophorone	0.0969	0.109		ug/L		113	50 - 150
Lindane	0.00969	0.0144		ug/L		149	50 - 150
Malathion	0.0969	0.0904	J	ug/L		93	50 - 150
Methoxychlor	0.0485	0.0509		ug/L		105	50 - 150
Metolachlor	0.0485	0.0589		ug/L		122	50 - 150
Molinate	0.0969	0.101		ug/L		104	50 - 150
Naphthalene	0.0969	0.0929	J	ug/L		96	50 - 150
Parathion	0.0969	0.0790	J	ug/L		82	50 - 150
Pendimethalin (Penoxaline)	0.0969	0.0828	J	ug/L		85	50 - 150
Phenanthrene	0.0388	0.0398		ug/L		103	50 - 150
Propachlor	0.0485	0.0489		ug/L		101	50 - 150
Pyrene	0.0485	0.0442	J	ug/L		91	50 - 150
Simazine	0.0485	0.0404	J	ug/L		83	50 - 150
Terbacil	0.0969	0.0991		ug/L		102	50 - 150
Terbutylazine	0.0969	0.0945	J	ug/L		97	50 - 150
Thiobencarb	0.0969	0.0945	J	ug/L		97	50 - 150
trans-Nonachlor	0.0242	<0.025		ug/L		90	50 - 150
Trifluralin	0.0969	0.0861	J	ug/L		89	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	84		70 - 130
Triphenylphosphate	98		70 - 130

QC Sample Results

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

Job ID: 380-126976-1
 SDG: Weekly

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

Lab Sample ID: 380-126986-I-1-A MS
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	<0.097		1.94	1.87		ug/L		96	70 - 130
2,4'-DDD	<0.097		1.94	2.01		ug/L		103	70 - 130
2,4'-DDE	<0.097		1.94	1.94		ug/L		100	70 - 130
2,4'-DDT	<0.097		1.94	1.86		ug/L		96	70 - 130
2,4-Dinitrotoluene	<0.097		1.94	1.82		ug/L		94	70 - 130
2,6-Dinitrotoluene	<0.097		1.94	1.88		ug/L		97	70 - 130
2-Methylnaphthalene	<0.097		1.94	1.89		ug/L		97	70 - 130
4,4'-DDD	<0.097		1.94	2.06		ug/L		106	70 - 130
4,4'-DDE	<0.097		1.94	1.92		ug/L		99	70 - 130
4,4'-DDT	<0.097		1.94	1.84		ug/L		95	70 - 130
Acenaphthene	<0.097		1.94	1.85		ug/L		95	70 - 130
Acenaphthylene	<0.097		1.94	1.94		ug/L		100	70 - 130
Acetochlor	<0.097		1.94	2.17		ug/L		112	70 - 130
Alachlor	<0.049		1.94	2.17		ug/L		112	70 - 130
alpha-BHC	<0.097		1.94	1.94		ug/L		100	70 - 130
alpha-Chlordane	<0.049		1.94	1.92		ug/L		99	70 - 130
Anthracene	<0.019		1.94	1.58		ug/L		82	70 - 130
Atrazine	<0.049		1.94	1.98		ug/L		102	70 - 130
Benz(a)anthracene	<0.049		1.94	1.90		ug/L		98	70 - 130
Benzo[a]pyrene	<0.019		1.94	1.82		ug/L		94	70 - 130
Benzo[b]fluoranthene	<0.019		1.94	1.95		ug/L		100	70 - 130
Benzo[g,h,i]perylene	<0.049		1.94	1.98		ug/L		102	70 - 130
Benzo[k]fluoranthene	<0.019		1.94	2.05		ug/L		105	70 - 130
beta-BHC	<0.097		1.94	1.99		ug/L		102	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.94	1.86		ug/L		96	70 - 130
Bromacil	<0.097		1.94	2.04		ug/L		105	70 - 130
Butachlor	<0.049		1.94	2.04		ug/L		105	70 - 130
Butylbenzylphthalate	<0.49		1.94	2.04		ug/L		105	70 - 130
Chlorobenzilate	<0.097		1.94	1.92		ug/L		99	70 - 130
Chloroneb	<0.097		1.94	2.28		ug/L		117	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.94	2.20		ug/L		114	70 - 130
Chlorpyrifos	<0.049		1.94	2.08		ug/L		107	70 - 130
Chrysene	<0.019		1.94	2.01		ug/L		103	70 - 130
delta-BHC	<0.097		1.94	1.95		ug/L		100	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.94	1.81		ug/L		93	70 - 130
Dibenz(a,h)anthracene	<0.049		1.94	1.88		ug/L		97	70 - 130
Diclorvos (DDVP)	<0.049		1.94	1.95		ug/L		100	70 - 130
Dieldrin	<0.0097		1.94	1.94		ug/L		100	70 - 130
Diethylphthalate	<0.49		1.94	1.97		ug/L		101	70 - 130
Dimethylphthalate	<0.49		1.94	1.96		ug/L		101	70 - 130
Di-n-butyl phthalate	<0.97		3.88	4.01		ug/L		103	70 - 130
Di-n-octyl phthalate	<0.097		1.94	1.79		ug/L		92	70 - 130
Endosulfan I (Alpha)	<0.097		1.94	1.98		ug/L		102	70 - 130
Endosulfan II (Beta)	<0.097		1.94	2.01		ug/L		103	70 - 130
Endosulfan sulfate	<0.097		1.94	1.94		ug/L		100	70 - 130
Endrin	<0.0097		1.94	2.24		ug/L		115	70 - 130
Endrin aldehyde	<0.097		1.94	1.35		ug/L		70	60 - 130
EPTC	<0.097		1.94	2.01		ug/L		104	70 - 130

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: 380-126986-I-1-A MS
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Fluoranthene	<0.097		1.94	2.08		ug/L		107	70 - 130
Fluorene	<0.049		1.94	1.91		ug/L		98	70 - 130
gamma-Chlordane	<0.049		1.94	1.96		ug/L		101	70 - 130
Heptachlor	<0.0097		1.94	2.08		ug/L		107	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.94	1.98		ug/L		102	70 - 130
Hexachlorobenzene	<0.049		1.94	1.82		ug/L		93	70 - 130
Hexachlorocyclopentadiene	<0.049		1.94	1.80		ug/L		93	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.94	1.86		ug/L		96	70 - 130
Isophorone	<0.097		1.94	1.91		ug/L		99	70 - 130
Lindane	<0.0097		1.94	1.93		ug/L		99	70 - 130
Malathion	<0.097		1.94	2.02		ug/L		104	70 - 130
Methoxychlor	<0.049		1.94	1.97		ug/L		101	70 - 130
Metolachlor	<0.049		1.94	2.03		ug/L		105	70 - 130
Molinate	<0.097		1.94	2.03		ug/L		105	70 - 130
Naphthalene	<0.097		1.94	1.94		ug/L		100	70 - 130
Parathion	<0.097		1.94	2.07		ug/L		107	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.94	1.89		ug/L		97	70 - 130
Phenanthrene	<0.039		1.94	1.88		ug/L		97	70 - 130
Propachlor	<0.049		1.94	2.11		ug/L		108	70 - 130
Pyrene	<0.049		1.94	2.07		ug/L		106	70 - 130
Simazine	<0.049		1.94	2.13		ug/L		110	70 - 130
Terbacil	<0.097		1.94	2.13		ug/L		109	70 - 130
Terbutylazine	<0.097		1.94	2.16		ug/L		111	70 - 130
Thiobencarb	<0.097		1.94	2.15		ug/L		111	70 - 130
trans-Nonachlor	<0.049		1.94	1.89		ug/L		97	70 - 130
Trifluralin	<0.097		1.94	1.82		ug/L		94	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	102		70 - 130

Lab Sample ID: 380-126986-J-1-A DU
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
1-Methylnaphthalene	<0.097		<0.098		ug/L		NC	20
2,4'-DDD	<0.097		<0.098		ug/L		NC	20
2,4'-DDE	<0.097		<0.098		ug/L		NC	20
2,4'-DDT	<0.097		<0.098		ug/L		NC	20
2,4-Dinitrotoluene	<0.097		<0.098		ug/L		NC	20
2,6-Dinitrotoluene	<0.097		<0.098		ug/L		NC	20
2-Methylnaphthalene	<0.097		<0.098		ug/L		NC	20
4,4'-DDD	<0.097		<0.098		ug/L		NC	20
4,4'-DDE	<0.097		<0.098		ug/L		NC	20
4,4'-DDT	<0.097		<0.098		ug/L		NC	20
Acenaphthene	<0.097		<0.098		ug/L		NC	20

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: 380-126986-J-1-A DU
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Acenaphthylene	<0.097		<0.098		ug/L		NC	20
Acetochlor	<0.097		<0.098		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.097		<0.098		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.019		<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	<0.019		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.020		ug/L		NC	20
beta-BHC	<0.097		<0.098		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.59		ug/L		NC	20
Bromacil	<0.097		<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	<0.097		<0.098		ug/L		NC	20
Chloroneb	<0.097		<0.098		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.098		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.019		<0.020		ug/L		NC	20
delta-BHC	<0.097		<0.098		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<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	<0.0097		<0.0098		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.98		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.098		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.098		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.098		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.098		ug/L		NC	20
Endrin	<0.0097		<0.0098		ug/L		NC	20
Endrin aldehyde	<0.097		<0.098		ug/L		NC	20
EPTC	<0.097		<0.098		ug/L		NC	20
Fluoranthene	<0.097		<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	<0.0097		<0.0098		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0097		<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	<0.097		<0.098		ug/L		NC	20
Lindane	<0.0097		<0.0098		ug/L		NC	20
Malathion	<0.097		<0.098		ug/L		NC	20
Methoxychlor	<0.049		<0.049		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: 380-126986-J-1-A DU
Matrix: Water
Analysis Batch: 124586

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 124463

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Metolachlor	<0.049		<0.049		ug/L		NC	20
Molinate	<0.097		<0.098		ug/L		NC	20
Naphthalene	<0.097		<0.098		ug/L		NC	20
Parathion	<0.097		<0.098		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<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	<0.097		<0.098		ug/L		NC	20
Terbutylazine	<0.097		<0.098		ug/L		NC	20
Thiobencarb	<0.097		<0.098		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.20		ug/L		NC	20
trans-Nonachlor	<0.049		<0.049		ug/L		NC	20
Trifluralin	<0.097		<0.098		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	101		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	99		70 - 130

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

Lab Sample ID: MB 570-515932/1-A
Matrix: Water
Analysis Batch: 520346

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 515932

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	12/19/24 13:28	01/06/25 07:46	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	80		33 - 139	12/19/24 13:28	01/06/25 07:46	1
2-Fluorobiphenyl (Surr)	76		33 - 126	12/19/24 13:28	01/06/25 07:46	1
2-Fluorophenol (Surr)	63		12 - 120	12/19/24 13:28	01/06/25 07:46	1
Nitrobenzene-d5 (Surr)	99		36 - 120	12/19/24 13:28	01/06/25 07:46	1
Phenol-d6 (Surr)	40		10 - 120	12/19/24 13:28	01/06/25 07:46	1
p-Terphenyl-d14 (Surr)	84		47 - 131	12/19/24 13:28	01/06/25 07:46	1

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

Lab Sample ID: MB 570-515932/1-A
Matrix: Water
Analysis Batch: 516386

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 515932

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
2-Methylnaphthalene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Acenaphthene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: MB 570-515932/1-A
Matrix: Water
Analysis Batch: 516386

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 515932

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Anthracene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Benzo[a]anthracene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Benzo[a]pyrene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Chrysene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Fluoranthene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Fluorene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Naphthalene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Phenanthrene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1
Pyrene	<0.20		0.20	ug/L		12/19/24 13:28	12/20/24 11:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	115		28 - 127	12/19/24 13:28	12/20/24 11:15	1
2-Fluorobiphenyl (Surr)	80		31 - 120	12/19/24 13:28	12/20/24 11:15	1
2-Fluorophenol (Surr)	49		17 - 120	12/19/24 13:28	12/20/24 11:15	1
Nitrobenzene-d5 (Surr)	87		27 - 120	12/19/24 13:28	12/20/24 11:15	1
Phenol-d6 (Surr)	31		10 - 120	12/19/24 13:28	12/20/24 11:15	1
p-Terphenyl-d14 (Surr)	81		45 - 120	12/19/24 13:28	12/20/24 11:15	1

Lab Sample ID: LCS 570-515932/2-A
Matrix: Water
Analysis Batch: 516386

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 515932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	15.7		ug/L		79	47 - 120
2-Methylnaphthalene	20.0	17.4		ug/L		87	43 - 120
Acenaphthene	20.0	18.0		ug/L		90	60 - 132
Acenaphthylene	20.0	17.2		ug/L		86	54 - 126
Anthracene	20.0	18.1		ug/L		90	43 - 120
Benzo[a]anthracene	20.0	17.6		ug/L		88	42 - 133
Benzo[a]pyrene	20.0	20.4		ug/L		102	32 - 148
Benzo[b]fluoranthene	20.0	19.7		ug/L		98	42 - 140
Benzo[g,h,i]perylene	20.0	17.7		ug/L		89	1 - 195
Benzo[k]fluoranthene	20.0	19.3		ug/L		97	25 - 146
Chrysene	20.0	17.7		ug/L		89	44 - 140
Dibenz(a,h)anthracene	20.0	18.7		ug/L		94	1 - 200
Fluoranthene	20.0	20.6		ug/L		103	43 - 121
Fluorene	20.0	19.8		ug/L		99	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	18.7		ug/L		94	1 - 151
Naphthalene	20.0	14.7		ug/L		73	36 - 120
Phenanthrene	20.0	17.7		ug/L		88	65 - 120
Pyrene	20.0	16.7		ug/L		83	70 - 120

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: LCS 570-515932/2-A
Matrix: Water
Analysis Batch: 516386

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 515932

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	84		28 - 127
2-Fluorobiphenyl (Surr)	79		31 - 120
2-Fluorophenol (Surr)	57		17 - 120
Nitrobenzene-d5 (Surr)	71		27 - 120
Phenol-d6 (Surr)	40		10 - 120
p-Terphenyl-d14 (Surr)	84		45 - 120

Lab Sample ID: LCSD 570-515932/3-A
Matrix: Water
Analysis Batch: 516386

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 515932

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	16.7		ug/L		83	47 - 120	6	20
2-Methylnaphthalene	20.0	18.3		ug/L		91	43 - 120	5	20
Acenaphthene	20.0	19.0		ug/L		95	60 - 132	5	29
Acenaphthylene	20.0	18.1		ug/L		91	54 - 126	5	45
Anthracene	20.0	19.1		ug/L		96	43 - 120	6	40
Benzo[a]anthracene	20.0	18.8		ug/L		94	42 - 133	6	32
Benzo[a]pyrene	20.0	21.3		ug/L		107	32 - 148	4	43
Benzo[b]fluoranthene	20.0	20.7		ug/L		103	42 - 140	5	43
Benzo[g,h,i]perylene	20.0	18.8		ug/L		94	1 - 195	6	61
Benzo[k]fluoranthene	20.0	20.5		ug/L		103	25 - 146	6	38
Chrysene	20.0	18.8		ug/L		94	44 - 140	6	53
Dibenz(a,h)anthracene	20.0	20.0		ug/L		100	1 - 200	7	75
Fluoranthene	20.0	21.8		ug/L		109	43 - 121	6	40
Fluorene	20.0	21.1		ug/L		105	70 - 120	6	23
Indeno[1,2,3-cd]pyrene	20.0	19.8		ug/L		99	1 - 151	6	60
Naphthalene	20.0	15.2		ug/L		76	36 - 120	4	39
Phenanthrene	20.0	19.1		ug/L		95	65 - 120	8	24
Pyrene	20.0	17.8		ug/L		89	70 - 120	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	88		28 - 127
2-Fluorobiphenyl (Surr)	82		31 - 120
2-Fluorophenol (Surr)	58		17 - 120
Nitrobenzene-d5 (Surr)	74		27 - 120
Phenol-d6 (Surr)	40		10 - 120
p-Terphenyl-d14 (Surr)	90		45 - 120

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

Lab Sample ID: MB 570-518135/6
Matrix: Water
Analysis Batch: 518135

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			12/27/24 11:18	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: MB 570-518135/6
Matrix: Water
Analysis Batch: 518135

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

<u>Surrogate</u>	<u>MB</u> <u>%Recovery</u>	<u>MB</u> <u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
4-Bromofluorobenzene (Surr)	61		38 - 134		12/27/24 11:18	1

Lab Sample ID: LCS 570-518135/4
Matrix: Water
Analysis Batch: 518135

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

<u>Analyte</u>	<u>Spike</u> <u>Added</u>	<u>LCS</u> <u>Result</u>	<u>LCS</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec</u> <u>Limits</u>
Gasoline Range Organics (C4-C13)	400	445		ug/L		111	78 - 120

<u>Surrogate</u>	<u>LCS</u> <u>%Recovery</u>	<u>LCS</u> <u>Qualifier</u>	<u>Limits</u>
4-Bromofluorobenzene (Surr)	76		38 - 134

Lab Sample ID: LCSD 570-518135/5
Matrix: Water
Analysis Batch: 518135

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

<u>Analyte</u>	<u>Spike</u> <u>Added</u>	<u>LCSD</u> <u>Result</u>	<u>LCSD</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec</u> <u>Limits</u>	<u>RPD</u> <u>Limit</u>
Gasoline Range Organics (C4-C13)	400	423		ug/L		106	78 - 120	5 / 10

<u>Surrogate</u>	<u>LCSD</u> <u>%Recovery</u>	<u>LCSD</u> <u>Qualifier</u>	<u>Limits</u>
4-Bromofluorobenzene (Surr)	77		38 - 134

Lab Sample ID: MRL 570-518135/3
Matrix: Water
Analysis Batch: 518135

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

<u>Analyte</u>	<u>Spike</u> <u>Added</u>	<u>MRL</u> <u>Result</u>	<u>MRL</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec</u> <u>Limits</u>
Gasoline Range Organics (C4-C13)	10.0	12.5		ug/L		125	50 - 150

<u>Surrogate</u>	<u>MRL</u> <u>%Recovery</u>	<u>MRL</u> <u>Qualifier</u>	<u>Limits</u>
4-Bromofluorobenzene (Surr)	69		38 - 134

Lab Sample ID: 380-126982-C-1 MS
Matrix: Water
Analysis Batch: 518135

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

<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>%Rec</u> <u>Limits</u>
Gasoline Range Organics (C4-C13)	<10		400	425		ug/L		106	68 - 122

<u>Surrogate</u>	<u>MS</u> <u>%Recovery</u>	<u>MS</u> <u>Qualifier</u>	<u>Limits</u>
4-Bromofluorobenzene (Surr)	78		38 - 134

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: 380-126982-C-1 MSD
Matrix: Water
Analysis Batch: 518135

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	424		ug/L		106	68 - 122	0	18
Surrogate		MSD %Recovery		MSD Qualifier					Limits		
4-Bromofluorobenzene (Surr)		75							38 - 134		

Lab Sample ID: 380-126986-C-1 MS
Matrix: Water
Analysis Batch: 518135

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	412		ug/L		103	68 - 122
Surrogate		MS %Recovery		MS Qualifier					Limits
4-Bromofluorobenzene (Surr)		73							38 - 134

Lab Sample ID: 380-126986-C-1 MSD
Matrix: Water
Analysis Batch: 518135

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	405		ug/L		101	68 - 122	2	18
Surrogate		MSD %Recovery		MSD Qualifier					Limits		
4-Bromofluorobenzene (Surr)		74							38 - 134		

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

Lab Sample ID: MB 570-516519/1-A
Matrix: Water
Analysis Batch: 516961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 516519

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		12/20/24 15:05	12/22/24 19:08	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		12/20/24 15:05	12/22/24 19:08	1
C8-C18	<25		25	ug/L		12/20/24 15:05	12/22/24 19:08	1
Surrogate		MB %Recovery				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)		109				12/20/24 15:05	12/22/24 19:08	1

Lab Sample ID: LCS 570-516519/2-A
Matrix: Water
Analysis Batch: 516961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 516519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1270		ug/L		80	56 - 127

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-126976-1
SDG: Weekly

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

Lab Sample ID: LCS 570-516519/2-A
Matrix: Water
Analysis Batch: 516961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 516519

	LCS %Recovery	LCS Qualifier	Limits
<i>Surrogate</i>			
<i>n-Octacosane (Surr)</i>	108		60 - 130

Lab Sample ID: LCSD 570-516519/3-A
Matrix: Water
Analysis Batch: 516961

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 516519

	Spike Added	LCSD Result	LCSD Qualifier		D	%Rec	%Rec Limits	RPD	Limit
Analyte									
C10-C28	1600	1280		ug/L		80	56 - 127	1	23

	LCSD %Recovery	LCSD Qualifier	Limits
<i>Surrogate</i>			
<i>n-Octacosane (Surr)</i>	114		60 - 130

Lab Sample ID: MRL 570-516519/4-A
Matrix: Water
Analysis Batch: 516961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 516519

	Spike Added	MRL Result	MRL Qualifier		D	%Rec	%Rec Limits		
Analyte									
C10-C28	0.0200	<0.020		mg/L		100	50 - 150		

	MRL %Recovery	MRL Qualifier	Limits
<i>Surrogate</i>			
<i>n-Octacosane (Surr)</i>	107		60 - 130

Lab Sample ID: 380-126982-B-1-A MS
Matrix: Water
Analysis Batch: 516961

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 516519

	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier		D	%Rec	%Rec Limits		
Analyte											
C10-C28	<25		1640	1320		ug/L		81	70 - 130		

	MS %Recovery	MS Qualifier	Limits
<i>Surrogate</i>			
<i>n-Octacosane (Surr)</i>	108		60 - 130

Lab Sample ID: 380-126982-B-1-B MSD
Matrix: Water
Analysis Batch: 516961

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 516519

	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier		D	%Rec	%Rec Limits	RPD	Limit
Analyte											
C10-C28	<25		1640	1340		ug/L		81	70 - 130	1	20

	MSD %Recovery	MSD Qualifier	Limits
<i>Surrogate</i>			
<i>n-Octacosane (Surr)</i>	109		60 - 130

QC Association Summary

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

Job ID: 380-126976-1
 SDG: Weekly

GC/MS Semi VOA

Prep Batch: 124463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126976-1	Ka'amilo Wells	Total/NA	Water	525.2	
MB 380-124463/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-124463/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-124463/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-124463/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-126986-I-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-126986-J-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 124586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126976-1	Ka'amilo Wells	Total/NA	Water	525.2	124463
MB 380-124463/21-A	Method Blank	Total/NA	Water	525.2	124463
LCS 380-124463/23-A	Lab Control Sample	Total/NA	Water	525.2	124463
LCSD 380-124463/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	124463
MRL 380-124463/22-A	Lab Control Sample	Total/NA	Water	525.2	124463
380-126986-I-1-A MS	Matrix Spike	Total/NA	Water	525.2	124463
380-126986-J-1-A DU	Duplicate	Total/NA	Water	525.2	124463

Prep Batch: 515932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126976-1	Ka'amilo Wells	Total/NA	Water	625.1	
MB 570-515932/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-515932/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-515932/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 516386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126976-1	Ka'amilo Wells	Total/NA	Water	625.1 SIM	515932
MB 570-515932/1-A	Method Blank	Total/NA	Water	625.1 SIM	515932
LCS 570-515932/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	515932
LCSD 570-515932/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	515932

Analysis Batch: 520346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126976-1	Ka'amilo Wells	Total/NA	Water	625.1	515932
MB 570-515932/1-A	Method Blank	Total/NA	Water	625.1	515932

GC VOA

Analysis Batch: 518135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126976-1	Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
380-126976-2	TB: Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
MB 570-518135/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-518135/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-518135/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-518135/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-126982-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-126982-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	
380-126986-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-126986-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: 380-126976-1
 SDG: Weekly

GC Semi VOA

Prep Batch: 516519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126976-1	Ka'amilo Wells	Total/NA	Water	3510C	
MB 570-516519/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-516519/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-516519/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-516519/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-126982-B-1-A MS	Matrix Spike	Total/NA	Water	3510C	
380-126982-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 516961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-126976-1	Ka'amilo Wells	Total/NA	Water	8015B	516519
MB 570-516519/1-A	Method Blank	Total/NA	Water	8015B	516519
LCS 570-516519/2-A	Lab Control Sample	Total/NA	Water	8015B	516519
LCSD 570-516519/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	516519
MRL 570-516519/4-A	Lab Control Sample	Total/NA	Water	8015B	516519
380-126982-B-1-A MS	Matrix Spike	Total/NA	Water	8015B	516519
380-126982-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	516519

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

Lab Chronicle

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

Job ID: 380-126976-1
 SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-126976-1

Date Collected: 12/16/24 11:15

Matrix: Water

Date Received: 12/18/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			124463	KRD3	EA POM	12/19/24 07:24
Total/NA	Analysis	525.2		1	124586	Q8LA	EA POM	12/19/24 17:59
Total/NA	Prep	625.1			515932	UD4J	EET CAL 4	12/19/24 18:36
Total/NA	Analysis	625.1		1	520346	CG	EET CAL 4	01/06/25 10:13
Total/NA	Prep	625.1			515932	UD4J	EET CAL 4	12/19/24 18:36
Total/NA	Analysis	625.1 SIM		1	516386	CG	EET CAL 4	12/20/24 13:05
Total/NA	Analysis	8015B GRO LL		1	518135	A9VE	EET CAL 4	12/27/24 13:05
Total/NA	Prep	3510C			516519	TVD6	EET CAL 4	12/20/24 15:05
Total/NA	Analysis	8015B		1	516961	H6FE	EET CAL 4	12/22/24 23:26

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-126976-2

Date Collected: 12/16/24 11:15

Matrix: Water

Date Received: 12/18/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	518135	A9VE	EET CAL 4	12/27/24 16:09

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: 380-126976-1
 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
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	State	3082	07-31-25
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	07-31-25

Accreditation/Certification Summary

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

Job ID: 380-126976-1
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
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	525-23-159-97150	06-08-26
Washington	State	C916	10-11-25

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

Method Summary

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

Job ID: 380-126976-1
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: 380-126976-1
SDG: Weekly

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
380-126976-1	Ka'amilo Wells	Water	12/16/24 11:15	12/18/24 09:55
380-126976-2	TB: Ka'amilo Wells	Water	12/16/24 11:15	12/18/24 09:55

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

Chain of Custody Record

Client Information		Lab PM Arada Rachelle		Carrier Tracking No(s) 380-28005-2757 1	
Client Contact Dr. Ron Fenstermacher		E-Mail: Rachelle.Arada@et.eurofins.com		Page: Page 1 of 1	
Company City & County of Honolulu		PW/SID:		Job #:	
Address: 630 South Beretania Street Chemistry Lab		Due Date Requested:		Preservation Codes: R - NaThioSO4 RA - NaThioHCl G - Na2SO3 GA - Na2SO3/HCl Y - Trizma I - NH4 Acetate	
City: Honolulu		TAT Requested (days)		Total Number of Containers	
State, Zip: HI 96843		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Other	
Phone: 808-748-5091 (Tel)		PO #: C20525101 exp 05312023		Special Instructions/Note: 1 OUT OF 2 APPARATUS BROKEN - 6/12/18/24	
Email: RFENSTERMACHER@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)	Preservation Code:	Matrix (W=water, S=solid, O=wastobsl, RT=Tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	525.1, 625.1, SIM	8015B_GRO_LL (MOD) GRO	8015B_DRO_LL_CS - HNL Ranges C10-C24/C24-C36/C38-C18	525.2_PRC - (MOD) 525plus Plus TICs	537.1_DW_PRC 537.1 Full List	533 - All Analytes	Analysis Requested	Carrier Tracking No(s)
Ka'amilo Wells	16-Dec-2024	1115	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	3	2	2				
Ka'amilo Wells (Matrix Spike)					Water										
Ka'amilo Wells (Matrix Spike Duplicate)					Water										
TB: Ka'amilo Wells	16-Dec-2024	1115			Water										

Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological	
Deliverable Requested I, II, III, IV Other (specify)			
Empty Kit Relinquished by		Date	
Relinquished by		Date/Time:	7 December 2024 AW
Relinquished by		Date/Time:	
Relinquished by		Date/Time:	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No		

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Special Instructions/QC Requirements.		Method of Shipment: FED EX 7708 4916 0110	
Received by		Date/Time:	12/18/24
Received by		Date/Time:	09:55
Received by		Date/Time:	
Cooler Temperature(s) °C and Other Remarks:		(1) 751A 3.3°-0.0° = 3.3° CEL FROZEN (2) 751B 0.2°-0.0°-0.2° CEL FROZEN	




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

Chain of Custody Record



eurofins | Enviro

Loc: 380
126976

Client Information (Sub Contract Lab)				Sampler: N/A	Lab PM: Arada, Rachelle	Carrier Tracking No(s): N/A	COC No: 380-178018.1									
Client Contact: Shipping/Receiving				Phone: N/A	E-Mail: Rachelle.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 #: 380-126976-1								
Address: 2841 Dow Avenue, Suite 100, City: Tustin State, Zip: CA, 92780		Due Date Requested: 1/6/2025		Analysis Requested				Preservation Codes:								
		TAT Requested (days): N/A														
Phone: 714-895-5494(Tel)		PO #: N/A														
Email: N/A		WO #: N/A														
Project Name: RED-HILL		Project #: 38001111														
Site: Honolulu BWS Sites		SSOW#: N/A		Total Number of containers Other: N/A				Special Instructions/Note:								
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time						Sample Type (C=comp, G=grab)	Matrix (Water, Soil, Sewerage, BT-Tissue, A-Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRG_LL_CS/3510C_LL HNL Ranges: C10-C24/C24-C30/C8-C18	8015B_GRO_LL/5030C (MOD) GRO	625_1_Sil/625_Prep (MOD) Extended PAH List	625_1/625_Prep (MOD) tentatively identified Compounds (Mold)
 		 	 						Preservation Code:		 	 	 	 	 	
Ka'amilo Wells (380-126976-1)		12/16/24	11:15 Hawaiian						G	Water		X	X	X	X	
TB: Ka'amilo Wells (380-126976-2)		12/16/24	11:15 Hawaiian						G	Water			X			
 380-126976 Chain of Custody																
Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.																
Possible Hazard Identification						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: <i>Xsn</i>		Date/Time: <i>12/19/24 1400</i>		Company: <i>ESAT</i>		Received by: <i>hcl</i>		Date/Time: <i>12/19/24 14:00</i>		Company: <i>RQ</i>						
Relinquished by: <i> </i>		Date/Time: <i> </i>		Company: <i> </i>		Received by: <i> </i>		Date/Time: <i> </i>		Company: <i> </i>						
Relinquished by: <i> </i>		Date/Time: <i> </i>		Company: <i> </i>		Received by: <i> </i>		Date/Time: <i> </i>		Company: <i> </i>						
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.: <i> </i>		Cooler Temperature(s) °C and Other Remarks: <i>0-5/1.5 SC19</i>												

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

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-126976-1

SDG Number: Weekly

Login Number: 126976

List Number: 1

Creator: Gerfen, Chris

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.	False	Refer to Job Narrative for details.
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").	N/A	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-126976-1

SDG Number: Weekly

Login Number: 126976

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 12/19/24 06:02 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	1.5
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.	False	