

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 10/4/2024 6:31:00 PM

JOB DESCRIPTION

RED-HILL
Weekly

JOB NUMBER

380-113707-1

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
10/4/2024 6:31:00 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	13
Surrogate Summary	14
QC Sample Results	16
QC Association Summary	33
Lab Chronicle	35
Certification Summary	36
Method Summary	38
Sample Summary	39
Chain of Custody	40
Receipt Checklists	46

Definitions/Glossary

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

Job ID: 380-113707-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
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.
α	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: 380-113707-1

Job ID: 380-113707-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-113707-1

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 9/18/2024 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.0°C, 3.7°C, 3.7°C, 5.1°C and 5.9°C.

GC/MS Semi VOA

Method 625.1_SIM: The surrogate for preparation batch 570-483623 and analytical batch 570-485893 recovered outside control limits for the following analyte: p-Terphenyl-d14 (Surr). The sample was re-prep/re-ran and still failed low. The HT has expired therefore, no re-extraction. Data excluded due to this QC failure.

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: 380-113707-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-113707-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.015		0.0097	ug/L	1		525.2	Total/NA

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-113707-2

No Detections.

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-113707-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.039		0.0098	ug/L	1		525.2	Total/NA
Heptachlor epoxide (isomer B)	0.021		0.0098	ug/L	1		525.2	Total/NA

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-113707-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-113707-1

Date Collected: 09/16/24 11:27

Matrix: Water

Date Received: 09/18/24 10:20

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		09/19/24 14:00	09/20/24 16:15	1
2,4'-DDD	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
2,4'-DDE	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
2,4'-DDT	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
2-Methylnaphthalene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
4,4'-DDD	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
4,4'-DDE	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
4,4'-DDT	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Acenaphthene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Acenaphthylene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Acetochlor	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Alachlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
alpha-BHC	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
alpha-Chlordane	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Anthracene	<0.019		0.019	ug/L		09/19/24 14:00	09/20/24 16:15	1
Atrazine	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Benz(a)anthracene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Benzo[a]pyrene	<0.019		0.019	ug/L		09/19/24 14:00	09/20/24 16:15	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		09/19/24 14:00	09/20/24 16:15	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		09/19/24 14:00	09/20/24 16:15	1
beta-BHC	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		09/19/24 14:00	09/20/24 16:15	1
Bromacil	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Butachlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Butylbenzylphthalate	<0.49		0.49	ug/L		09/19/24 14:00	09/20/24 16:15	1
Chlorobenzilate	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Chloroneb	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Chlorpyrifos	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Chrysene	<0.019		0.019	ug/L		09/19/24 14:00	09/20/24 16:15	1
delta-BHC	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		09/19/24 14:00	09/20/24 16:15	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Dieldrin	0.015		0.0097	ug/L		09/19/24 14:00	09/23/24 17:55	1
Diethylphthalate	<0.49		0.49	ug/L		09/19/24 14:00	09/20/24 16:15	1
Dimethylphthalate	<0.49		0.49	ug/L		09/19/24 14:00	09/20/24 16:15	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		09/19/24 14:00	09/20/24 16:15	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Endosulfan sulfate	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Endrin	<0.0097		0.0097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Endrin aldehyde	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
EPTC	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Fluoranthene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-113707-1

Date Collected: 09/16/24 11:27

Matrix: Water

Date Received: 09/18/24 10:20

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		09/19/24 14:00	09/20/24 16:15	1
gamma-Chlordane	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Heptachlor	<0.0097		0.0097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Hexachlorobenzene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Isophorone	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Lindane	<0.0097	^3+	0.0097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Malathion	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Methoxychlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Metolachlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Molinate	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Naphthalene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Parathion	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Phenanthrene	<0.039		0.039	ug/L		09/19/24 14:00	09/20/24 16:15	1
Propachlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Pyrene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Simazine	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Terbacil	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Terbutylazine	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Thiobencarb	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		09/19/24 14:00	09/20/24 16:15	1
trans-Nonachlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:15	1
Trifluralin	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:15	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.54	T J	ug/L		2.69	N/A	09/19/24 14:00	09/23/24 17:55	1
Decane	1.4	T J N	ug/L		2.83	124-18-5	09/19/24 14:00	09/23/24 17:55	1
Tentatively Identified Compound	None		ug/L			N/A	09/19/24 14:00	09/20/24 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	09/19/24 14:00	09/20/24 16:15	1
2-Nitro-m-xylene	97		70 - 130	09/19/24 14:00	09/23/24 17:55	1
Perylene-d12	97		70 - 130	09/19/24 14:00	09/20/24 16:15	1
Perylene-d12	98		70 - 130	09/19/24 14:00	09/23/24 17:55	1
Triphenylphosphate	105		70 - 130	09/19/24 14:00	09/20/24 16:15	1
Triphenylphosphate	99		70 - 130	09/19/24 14:00	09/23/24 17:55	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		09/23/24 05:22	09/29/24 11:53	1
2-Methylnaphthalene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Acenaphthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Acenaphthylene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Anthracene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Benzo[a]anthracene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Benzo[a]pyrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-113707-1

Date Collected: 09/16/24 11:27

Matrix: Water

Date Received: 09/18/24 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Chrysene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Fluoranthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Fluorene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Naphthalene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Phenanthrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1
Pyrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 11:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	77		28 - 127	09/23/24 05:22	09/29/24 11:53	1
2-Fluorobiphenyl (Surr)	45		31 - 120	09/23/24 05:22	09/29/24 11:53	1
2-Fluorophenol (Surr)	38		17 - 120	09/23/24 05:22	09/29/24 11:53	1
Nitrobenzene-d5 (Surr)	48		27 - 120	09/23/24 05:22	09/29/24 11:53	1
Phenol-d6 (Surr)	24		10 - 120	09/23/24 05:22	09/29/24 11:53	1
p-Terphenyl-d14 (Surr)	55		45 - 120	09/23/24 05:22	09/29/24 11:53	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	09/23/24 05:22	10/02/24 15:47	1
Tentatively Identified Compound	None		ug/L			N/A	09/23/24 05:22	10/03/24 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	67		33 - 139	09/23/24 05:22	10/03/24 15:32	1
2-Fluorobiphenyl (Surr)	68		33 - 126	09/23/24 05:22	10/03/24 15:32	1
2-Fluorophenol (Surr)	47		12 - 120	09/23/24 05:22	10/03/24 15:32	1
Nitrobenzene-d5 (Surr)	79		36 - 120	09/23/24 05:22	10/03/24 15:32	1
Phenol-d6 (Surr)	26		10 - 120	09/23/24 05:22	10/03/24 15:32	1
p-Terphenyl-d14 (Surr)	80		47 - 131	09/23/24 05:22	10/03/24 15:32	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			09/20/24 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		38 - 134		09/20/24 18:59	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		09/22/24 17:36	09/27/24 02:20	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		09/22/24 17:36	09/27/24 02:20	1
C8-C18	<25		25	ug/L		09/22/24 17:36	09/27/24 02:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 130	09/22/24 17:36	09/27/24 02:20	1

Client Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

Client Sample ID: TB: Ka'amilo Wells

Lab Sample ID: 380-113707-2

Date Collected: 09/16/24 11:27

Matrix: Water

Date Received: 09/18/24 10:20

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			09/20/24 20:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		38 - 134				09/20/24 20:32	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-113707-3

Date Collected: 09/16/24 10:08

Matrix: Water

Date Received: 09/18/24 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
2,4'-DDD	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
2,4'-DDE	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
2,4'-DDT	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
2-Methylnaphthalene	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
4,4'-DDD	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
4,4'-DDE	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
4,4'-DDT	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Acenaphthene	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Acenaphthylene	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Acetochlor	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Alachlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
alpha-BHC	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
alpha-Chlordane	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Anthracene	<0.020		0.020	ug/L		09/19/24 14:00	09/20/24 16:35	1
Atrazine	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Benz(a)anthracene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Benzo[a]pyrene	<0.020		0.020	ug/L		09/19/24 14:00	09/20/24 16:35	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		09/19/24 14:00	09/20/24 16:35	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		09/19/24 14:00	09/20/24 16:35	1
beta-BHC	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		09/19/24 14:00	09/20/24 16:35	1
Bromacil	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Butachlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Butylbenzylphthalate	<0.49		0.49	ug/L		09/19/24 14:00	09/20/24 16:35	1
Chlorobenzilate	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Chloroneb	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Chlorpyrifos	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Chrysene	<0.020		0.020	ug/L		09/19/24 14:00	09/20/24 16:35	1
delta-BHC	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		09/19/24 14:00	09/20/24 16:35	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Dieldrin	0.039		0.0098	ug/L		09/19/24 14:00	09/23/24 18:15	1
Diethylphthalate	<0.49		0.49	ug/L		09/19/24 14:00	09/20/24 16:35	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-113707-3

Date Collected: 09/16/24 10:08

Matrix: Water

Date Received: 09/18/24 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethylphthalate	<0.49		0.49	ug/L		09/19/24 14:00	09/20/24 16:35	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		09/19/24 14:00	09/20/24 16:35	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Endosulfan sulfate	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Endrin	<0.0098		0.0098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Endrin aldehyde	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
EPTC	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Fluoranthene	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Fluorene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
gamma-Chlordane	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Heptachlor	<0.0098		0.0098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Heptachlor epoxide (isomer B)	0.021		0.0098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Hexachlorobenzene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Isophorone	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Lindane	<0.0098	^3+	0.0098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Malathion	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Methoxychlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Metolachlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Molinate	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Naphthalene	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Parathion	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Phenanthrene	<0.039		0.039	ug/L		09/19/24 14:00	09/20/24 16:35	1
Propachlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Pyrene	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Simazine	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Terbacil	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Terbutylazine	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Thiobencarb	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		09/19/24 14:00	09/20/24 16:35	1
trans-Nonachlor	<0.049		0.049	ug/L		09/19/24 14:00	09/20/24 16:35	1
Trifluralin	<0.098		0.098	ug/L		09/19/24 14:00	09/20/24 16:35	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.66	T J	ug/L		2.69	N/A	09/19/24 14:00	09/23/24 18:15	1
Decane	1.3	T J N	ug/L		2.84	124-18-5	09/19/24 14:00	09/23/24 18:15	1
Tentatively Identified Compound	None		ug/L			N/A	09/19/24 14:00	09/20/24 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	09/19/24 14:00	09/20/24 16:35	1
2-Nitro-m-xylene	99		70 - 130	09/19/24 14:00	09/23/24 18:15	1
Perylene-d12	99		70 - 130	09/19/24 14:00	09/20/24 16:35	1
Perylene-d12	97		70 - 130	09/19/24 14:00	09/23/24 18:15	1
Triphenylphosphate	106		70 - 130	09/19/24 14:00	09/20/24 16:35	1
Triphenylphosphate	103		70 - 130	09/19/24 14:00	09/23/24 18:15	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-113707-1
 SDG: Weekly

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-113707-3

Date Collected: 09/16/24 10:08

Matrix: Water

Date Received: 09/18/24 10:20

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			09/20/24 16:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		38 - 134				09/20/24 16:46	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		09/22/24 17:36	09/27/24 02:42	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		09/22/24 17:36	09/27/24 02:42	1
C8-C18	<26		26	ug/L		09/22/24 17:36	09/27/24 02:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	121		60 - 130			09/22/24 17:36	09/27/24 02:42	1

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-113707-4

Date Collected: 09/16/24 10:08

Matrix: Water

Date Received: 09/18/24 10:20

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			09/20/24 20:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		38 - 134				09/20/24 20:55	1

Action Limit Summary

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

Job ID: 380-113707-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-113707-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL		RL	Method	Prep Type
				Limit				
Alachlor	<0.049		ug/L	2		0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3		0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2		0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6		0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400		0.58	525.2	Total/NA
Endrin	<0.0097		ug/L	2		0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4		0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		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	^3+	ug/L	0.2		0.0097	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40		0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4		0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2		0.19	625.1 SIM	Total/NA

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-113707-3

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL		RL	Method	Prep Type
				Limit				
Alachlor	<0.049		ug/L	2		0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3		0.049	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2		0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6		0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59		ug/L	400		0.59	525.2	Total/NA
Endrin	<0.0098		ug/L	2		0.0098	525.2	Total/NA
Heptachlor	<0.0098		ug/L	0.4		0.0098	525.2	Total/NA
Heptachlor epoxide (isomer B)	0.021		ug/L	0.2		0.0098	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1		0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50		0.049	525.2	Total/NA
Lindane	<0.0098	^3+	ug/L	0.2		0.0098	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40		0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4		0.049	525.2	Total/NA

Surrogate Summary

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

Job ID: 380-113707-1
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)
380-113658-P-1-A MS	Matrix Spike	97	97	109
380-113675-B-1-A DU	Duplicate	96	94	110
380-113707-1	Ka'amilo Wells	96	97	105
380-113707-1	Ka'amilo Wells	97	98	99
380-113707-3	HALAWA WELLS UNITS 1 & 2 P1	97	99	106
380-113707-3	HALAWA WELLS UNITS 1 & 2 P1	99	97	103
LCS 380-109135/23-A	Lab Control Sample	97	98	113
MB 380-109135/21-A	Method Blank	96	95	108
MRL 380-109135/22-A	Lab Control Sample	97	96	106
MRL 380-109135/22-A	Lab Control Sample	100	92	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)
380-113707-1	Ka'amilo Wells	67	68	47	79	26	80
MB 570-483623/1-A	Method Blank	64	60	41	63	26	83

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)
380-113707-1	Ka'amilo Wells	77	45	38	48	24	55
380-113707-A-3-A MS	380-113707-A-3-A MS	87	51	51	38	34	56
380-113707-A-3-B MSD	380-113707-A-3-B MSD	90	52	53	39	34	58
LCS 570-483623/2-A	Lab Control Sample	86	52	58	39	39	60
LCSD 570-483623/3-A	Lab Control Sample Dup	89	52	58	39	39	62
MB 570-483623/1-A	Method Blank	77	41	39	43	25	55

Surrogate Legend
 TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)

Surrogate Summary

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

Job ID: 380-113707-1
 SDG: Weekly

NBZ = Nitrobenzene-d5 (Surr)
 PHL6 = Phenol-d6 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

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)
380-113707-1	Ka'amilo Wells	86
380-113707-2	TB: Ka'amilo Wells	86
380-113707-3	HALAWA WELLS UNITS 1 & 2 P1	87
380-113707-3 MS	HALAWA WELLS UNITS 1 & 2 P1	91
380-113707-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	91
380-113707-4	TB: HALAWA WELLS UNITS 1 & 2 P1	86
LCS 570-483045/4	Lab Control Sample	89
LCSD 570-483045/5	Lab Control Sample Dup	92
MB 570-483045/6	Method Blank	85
MRL 570-483045/3	Lab Control Sample	86

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)
380-113707-1	Ka'amilo Wells	113
380-113707-3	HALAWA WELLS UNITS 1 & 2 P1	121
380-113707-3 MS	HALAWA WELLS UNITS 1 & 2 P1	118
380-113707-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	105
LCS 570-483575/2-A	Lab Control Sample	118
LCSD 570-483575/3-A	Lab Control Sample Dup	114
MB 570-483575/1-A	Method Blank	109
MRL 570-483575/4-A	Lab Control Sample	118

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: MB 380-109135/21-A
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 109135

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
2,4'-DDD	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
2,4'-DDE	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
2,4'-DDT	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
2-Methylnaphthalene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
4,4'-DDD	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
4,4'-DDE	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
4,4'-DDT	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Acenaphthene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Acenaphthylene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Acetochlor	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Alachlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
alpha-BHC	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
alpha-Chlordane	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Anthracene	<0.019		0.019	ug/L		09/19/24 11:30	09/20/24 15:13	1
Atrazine	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Benz(a)anthracene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Benzo[a]pyrene	<0.019		0.019	ug/L		09/19/24 11:30	09/20/24 15:13	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		09/19/24 11:30	09/20/24 15:13	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		09/19/24 11:30	09/20/24 15:13	1
beta-BHC	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		09/19/24 11:30	09/20/24 15:13	1
Bromacil	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Butachlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Butylbenzylphthalate	<0.49		0.49	ug/L		09/19/24 11:30	09/20/24 15:13	1
Chlorobenzilate	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Chloroneb	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Chlorpyrifos	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Chrysene	<0.019		0.019	ug/L		09/19/24 11:30	09/20/24 15:13	1
delta-BHC	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		09/19/24 11:30	09/20/24 15:13	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Dieldrin	<0.0097		0.0097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Diethylphthalate	<0.49		0.49	ug/L		09/19/24 11:30	09/20/24 15:13	1
Dimethylphthalate	<0.49		0.49	ug/L		09/19/24 11:30	09/20/24 15:13	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		09/19/24 11:30	09/20/24 15:13	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Endosulfan sulfate	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Endrin	<0.0097		0.0097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Endrin aldehyde	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
EPTC	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: MB 380-109135/21-A
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 109135

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Fluorene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
gamma-Chlordane	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Heptachlor	<0.0097		0.0097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Hexachlorobenzene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Isophorone	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Lindane	<0.0097		0.0097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Malathion	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Methoxychlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Metolachlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Molinate	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Naphthalene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Parathion	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Phenanthrene	<0.039		0.039	ug/L		09/19/24 11:30	09/20/24 15:13	1
Propachlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Pyrene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Simazine	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Terbacil	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Terbutylazine	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Thiobencarb	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		09/19/24 11:30	09/20/24 15:13	1
trans-Nonachlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 15:13	1
Trifluralin	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 15:13	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.508	T J	ug/L		11.19	N/A	09/19/24 11:30	09/20/24 15:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	09/19/24 11:30	09/20/24 15:13	1
Perylene-d12	95		70 - 130	09/19/24 11:30	09/20/24 15:13	1
Triphenylphosphate	108		70 - 130	09/19/24 11:30	09/20/24 15:13	1

Lab Sample ID: LCS 380-109135/23-A
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.95	1.87		ug/L		96	70 - 130
2,4'-DDD	1.95	2.20		ug/L		113	70 - 130
2,4'-DDE	1.95	2.15		ug/L		110	70 - 130
2,4'-DDT	1.95	2.11		ug/L		108	70 - 130
2,4-Dinitrotoluene	1.95	2.26		ug/L		116	70 - 130
2,6-Dinitrotoluene	1.95	2.19		ug/L		113	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: 380-113707-1
SDG: Weekly

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

Lab Sample ID: LCS 380-109135/23-A
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.95	2.19		ug/L		113	70 - 130
4,4'-DDE	1.95	2.10		ug/L		108	70 - 130
4,4'-DDT	1.95	2.18		ug/L		112	70 - 130
Acenaphthene	1.95	1.94		ug/L		100	70 - 130
Acenaphthylene	1.95	1.90		ug/L		98	70 - 130
Acetochlor	1.95	2.17		ug/L		112	70 - 130
Alachlor	1.95	2.18		ug/L		112	70 - 130
alpha-BHC	1.95	2.02		ug/L		104	70 - 130
alpha-Chlordane	1.95	2.27		ug/L		116	70 - 130
Anthracene	1.95	1.82		ug/L		94	70 - 130
Atrazine	1.95	2.06		ug/L		106	70 - 130
Benz(a)anthracene	1.95	2.06		ug/L		106	70 - 130
Benzo[a]pyrene	1.95	1.94		ug/L		100	70 - 130
Benzo[b]fluoranthene	1.95	2.01		ug/L		103	70 - 130
Benzo[g,h,i]perylene	1.95	2.04		ug/L		105	70 - 130
Benzo[k]fluoranthene	1.95	1.99		ug/L		102	70 - 130
beta-BHC	1.95	2.12		ug/L		109	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	1.66		ug/L		85	70 - 130
Bromacil	1.95	2.00		ug/L		103	70 - 130
Butachlor	1.95	2.05		ug/L		105	70 - 130
Butylbenzylphthalate	1.95	2.09		ug/L		107	70 - 130
Chlorobenzilate	1.95	2.13		ug/L		109	70 - 130
Chloroneb	1.95	1.91		ug/L		98	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.18		ug/L		112	70 - 130
Chlorpyrifos	1.95	2.18		ug/L		112	70 - 130
Chrysene	1.95	1.99		ug/L		102	70 - 130
delta-BHC	1.95	2.11		ug/L		109	70 - 130
Di(2-ethylhexyl)adipate	1.95	1.83		ug/L		94	70 - 130
Dibenz(a,h)anthracene	1.95	2.04		ug/L		105	70 - 130
Diclorvos (DDVP)	1.95	1.81		ug/L		93	70 - 130
Dieldrin	1.95	2.11		ug/L		109	70 - 130
Diethylphthalate	1.95	2.01		ug/L		103	70 - 130
Dimethylphthalate	1.95	1.97		ug/L		101	70 - 130
Di-n-butyl phthalate	3.89	4.14		ug/L		106	70 - 130
Di-n-octyl phthalate	1.95	1.58		ug/L		81	70 - 130
Endosulfan I (Alpha)	1.95	2.05		ug/L		105	70 - 130
Endosulfan II (Beta)	1.95	2.09		ug/L		107	70 - 130
Endosulfan sulfate	1.95	2.15		ug/L		111	70 - 130
Endrin	1.95	2.34		ug/L		120	70 - 130
Endrin aldehyde	1.95	2.08		ug/L		107	60 - 130
EPTC	1.95	1.94		ug/L		100	70 - 130
Fluoranthene	1.95	2.13		ug/L		110	70 - 130
Fluorene	1.95	1.98		ug/L		102	70 - 130
gamma-Chlordane	1.95	2.27		ug/L		116	70 - 130
Heptachlor	1.95	1.98		ug/L		102	70 - 130
Heptachlor epoxide (isomer B)	1.95	2.17		ug/L		112	70 - 130
Hexachlorobenzene	1.95	1.98		ug/L		102	70 - 130
Hexachlorocyclopentadiene	1.95	2.09		ug/L		107	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	1.94		ug/L		100	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: LCS 380-109135/23-A
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isophorone	1.95	1.82		ug/L		93	70 - 130
Lindane	1.95	1.98		ug/L		102	70 - 130
Malathion	1.95	2.18		ug/L		112	70 - 130
Methoxychlor	1.95	2.01		ug/L		103	70 - 130
Metolachlor	1.95	2.27		ug/L		116	70 - 130
Molinate	1.95	1.95		ug/L		100	70 - 130
Naphthalene	1.95	1.78		ug/L		92	70 - 130
Parathion	1.95	2.43		ug/L		125	70 - 130
Pendimethalin (Penoxaline)	1.95	2.33		ug/L		119	70 - 130
Phenanthrene	1.95	1.86		ug/L		95	70 - 130
Propachlor	1.95	1.96		ug/L		101	70 - 130
Pyrene	1.95	2.08		ug/L		107	70 - 130
Simazine	1.95	2.11		ug/L		109	70 - 130
Terbacil	1.95	2.16		ug/L		111	70 - 130
Terbutylazine	1.95	2.22		ug/L		114	70 - 130
Thiobencarb	1.95	2.00		ug/L		103	70 - 130
trans-Nonachlor	1.95	2.28		ug/L		117	70 - 130
Trifluralin	1.95	2.02		ug/L		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	113		70 - 130

Lab Sample ID: MRL 380-109135/22-A
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0975	0.101		ug/L		104	50 - 150
2,4'-DDD	0.0975	0.0968	J	ug/L		99	50 - 150
2,4'-DDE	0.0975	0.105		ug/L		108	50 - 150
2,4'-DDT	0.0975	0.123		ug/L		126	50 - 150
2,4-Dinitrotoluene	0.0975	0.127		ug/L		130	50 - 150
2,6-Dinitrotoluene	0.0975	0.127		ug/L		131	50 - 150
2-Methylnaphthalene	0.0975	0.0939	J	ug/L		96	50 - 150
4,4'-DDD	0.0975	0.111		ug/L		113	50 - 150
4,4'-DDE	0.0975	0.104		ug/L		107	50 - 150
4,4'-DDT	0.0975	0.126		ug/L		129	50 - 150
Acenaphthene	0.0975	0.0978	J	ug/L		100	50 - 150
Acenaphthylene	0.0975	0.0913	J	ug/L		94	50 - 150
Acetochlor	0.0975	0.108		ug/L		111	50 - 150
Alachlor	0.0488	0.0537		ug/L		110	50 - 150
alpha-BHC	0.0975	0.109		ug/L		112	50 - 150
alpha-Chlordane	0.0244	<0.028		ug/L		105	50 - 150
Anthracene	0.0195	0.0203		ug/L		104	50 - 150
Atrazine	0.0488	0.0472	J	ug/L		97	50 - 150
Benz(a)anthracene	0.0488	0.0549		ug/L		113	50 - 150

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: MRL 380-109135/22-A
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzo[a]pyrene	0.0195	0.0193	J	ug/L		99	50 - 150
Benzo[b]fluoranthene	0.0195	0.0181	J	ug/L		93	50 - 150
Benzo[g,h,i]perylene	0.0488	0.0439	J	ug/L		90	50 - 150
Benzo[k]fluoranthene	0.0195	0.0187	J	ug/L		96	50 - 150
beta-BHC	0.0975	0.120		ug/L		123	50 - 150
Bis(2-ethylhexyl) phthalate	0.585	0.506	J	ug/L		86	50 - 150
Bromacil	0.0975	0.118		ug/L		122	50 - 150
Butachlor	0.0488	0.0669		ug/L		137	50 - 150
Butylbenzylphthalate	0.488	0.518		ug/L		106	50 - 150
Chlorobenzilate	0.0975	0.102		ug/L		104	50 - 150
Chloroneb	0.0975	0.0885	J	ug/L		91	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0975	0.124		ug/L		127	50 - 150
Chlorpyrifos	0.0488	0.0519		ug/L		106	50 - 150
Chrysene	0.0195	0.0211		ug/L		108	50 - 150
delta-BHC	0.0975	0.112		ug/L		115	50 - 150
Di(2-ethylhexyl)adipate	0.585	0.545	J	ug/L		93	50 - 150
Dibenz(a,h)anthracene	0.0488	0.0400	J	ug/L		82	50 - 150
Diclorvos (DDVP)	0.0488	0.0478	J	ug/L		98	50 - 150
Diethylphthalate	0.488	0.509		ug/L		104	50 - 150
Dimethylphthalate	0.488	0.502		ug/L		103	50 - 150
Di-n-butyl phthalate	0.488	0.535	J	ug/L		110	49 - 243
Di-n-octyl phthalate	0.0975	0.0712	J	ug/L		73	50 - 150
Endosulfan I (Alpha)	0.0975	0.0980		ug/L		101	50 - 150
Endosulfan II (Beta)	0.0975	0.107		ug/L		110	50 - 150
Endosulfan sulfate	0.0975	0.121		ug/L		124	50 - 150
Endrin	0.00975	0.0141		ug/L		145	50 - 150
Endrin aldehyde	0.0975	0.110		ug/L		112	50 - 150
EPTC	0.0975	0.0907	J	ug/L		93	50 - 150
Fluoranthene	0.0975	0.101		ug/L		104	50 - 150
Fluorene	0.0488	0.0499		ug/L		102	50 - 150
gamma-Chlordane	0.0244	0.0254	J	ug/L		104	50 - 150
Heptachlor	0.00975	0.0111		ug/L		114	50 - 150
Heptachlor epoxide (isomer B)	0.00975	0.0146		ug/L		150	50 - 150
Hexachlorobenzene	0.0488	0.0508		ug/L		104	50 - 150
Hexachlorocyclopentadiene	0.0488	0.0510		ug/L		105	50 - 150
Indeno[1,2,3-cd]pyrene	0.0488	0.0397	J	ug/L		81	50 - 150
Isophorone	0.0975	0.111		ug/L		113	50 - 150
Lindane	0.00975	0.0156	^3+	ug/L		160	50 - 150
Malathion	0.0975	0.116		ug/L		119	50 - 150
Methoxychlor	0.0488	0.0727		ug/L		149	50 - 150
Metolachlor	0.0488	0.0580		ug/L		119	50 - 150
Molinate	0.0975	0.0992		ug/L		102	50 - 150
Naphthalene	0.0975	0.0966	J	ug/L		99	50 - 150
Parathion	0.0975	0.106		ug/L		109	50 - 150
Pendimethalin (Penoxaline)	0.0975	0.123		ug/L		126	50 - 150
Phenanthrene	0.0390	0.0425		ug/L		109	50 - 150
Propachlor	0.0488	0.0495		ug/L		102	50 - 150
Pyrene	0.0488	0.0491		ug/L		101	50 - 150
Simazine	0.0488	0.0524		ug/L		107	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: MRL 380-109135/22-A
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Terbacil	0.0975	0.110		ug/L		112	50 - 150
Terbutylazine	0.0975	0.109		ug/L		112	50 - 150
Thiobencarb	0.0975	0.100		ug/L		103	50 - 150
trans-Nonachlor	0.0244	0.0273	J	ug/L		112	50 - 150
Trifluralin	0.0975	0.115		ug/L		118	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	106		70 - 130

Lab Sample ID: MRL 380-109135/22-A
Matrix: Water
Analysis Batch: 109739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0975	0.109		ug/L		112	50 - 150
2,4'-DDD	0.0975	0.0906	J	ug/L		93	50 - 150
2,4'-DDE	0.0975	0.0996		ug/L		102	50 - 150
2,4'-DDT	0.0975	0.0949	J	ug/L		97	50 - 150
2,4-Dinitrotoluene	0.0975	0.0996		ug/L		102	50 - 150
2,6-Dinitrotoluene	0.0975	0.104		ug/L		106	50 - 150
2-Methylnaphthalene	0.0975	0.104		ug/L		106	50 - 150
4,4'-DDD	0.0975	0.115		ug/L		118	50 - 150
4,4'-DDE	0.0975	0.0943	J	ug/L		97	50 - 150
4,4'-DDT	0.0975	0.112		ug/L		115	50 - 150
Acenaphthene	0.0975	0.0993		ug/L		102	50 - 150
Acenaphthylene	0.0975	0.0927	J	ug/L		95	50 - 150
Acetochlor	0.0975	0.119		ug/L		122	50 - 150
Alachlor	0.0488	0.0547		ug/L		112	50 - 150
alpha-BHC	0.0975	0.108		ug/L		111	50 - 150
alpha-Chlordane	0.0244	0.0304	J	ug/L		125	50 - 150
Anthracene	0.0195	0.0202		ug/L		103	50 - 150
Atrazine	0.0488	0.0525		ug/L		108	50 - 150
Benz(a)anthracene	0.0488	0.0523		ug/L		107	50 - 150
Benzo[a]pyrene	0.0195	0.0214		ug/L		110	50 - 150
Benzo[b]fluoranthene	0.0195	0.0231		ug/L		118	50 - 150
Benzo[g,h,i]perylene	0.0488	0.0491		ug/L		101	50 - 150
Benzo[k]fluoranthene	0.0195	0.0212		ug/L		109	50 - 150
beta-BHC	0.0975	0.116		ug/L		119	50 - 150
Bis(2-ethylhexyl) phthalate	0.585	0.566	J	ug/L		97	50 - 150
Bromacil	0.0975	0.0927	J	ug/L		95	50 - 150
Butachlor	0.0488	0.0541		ug/L		111	50 - 150
Butylbenzylphthalate	0.488	0.559		ug/L		115	50 - 150
Chlorobenzilate	0.0975	0.0747	J	ug/L		77	50 - 150
Chloroneb	0.0975	0.0963	J	ug/L		99	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0975	0.119		ug/L		122	50 - 150
Chlorpyrifos	0.0488	0.0502		ug/L		103	50 - 150

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: MRL 380-109135/22-A
Matrix: Water
Analysis Batch: 109739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chrysene	0.0195	0.0215		ug/L		110	50 - 150
delta-BHC	0.0975	0.108		ug/L		111	50 - 150
Di(2-ethylhexyl)adipate	0.585	0.664		ug/L		114	50 - 150
Dibenz(a,h)anthracene	0.0488	0.0477	J	ug/L		98	50 - 150
Diclorvos (DDVP)	0.0488	0.0584		ug/L		120	50 - 150
Dieldrin	0.00975	0.0104		ug/L		107	50 - 150
Diethylphthalate	0.488	0.530		ug/L		109	50 - 150
Dimethylphthalate	0.488	0.518		ug/L		106	50 - 150
Di-n-butyl phthalate	0.488	0.507	J	ug/L		104	49 - 243
Di-n-octyl phthalate	0.0975	0.105		ug/L		108	50 - 150
Endosulfan I (Alpha)	0.0975	0.0948	J	ug/L		97	50 - 150
Endosulfan II (Beta)	0.0975	0.112		ug/L		115	50 - 150
Endosulfan sulfate	0.0975	0.0985		ug/L		101	50 - 150
Endrin	0.00975	0.0140		ug/L		143	50 - 150
Endrin aldehyde	0.0975	0.0842	J	ug/L		86	50 - 150
EPTC	0.0975	0.0983		ug/L		101	50 - 150
Fluoranthene	0.0975	0.0988		ug/L		101	50 - 150
Fluorene	0.0488	<0.049		ug/L		98	50 - 150
gamma-Chlordane	0.0244	0.0260	J	ug/L		107	50 - 150
Heptachlor	0.00975	0.0125		ug/L		128	50 - 150
Heptachlor epoxide (isomer B)	0.00975	0.0152	^3+	ug/L		156	50 - 150
Hexachlorobenzene	0.0488	0.0473	J	ug/L		97	50 - 150
Hexachlorocyclopentadiene	0.0488	0.0497		ug/L		102	50 - 150
Indeno[1,2,3-cd]pyrene	0.0488	0.0492		ug/L		101	50 - 150
Isophorone	0.0975	0.125		ug/L		128	50 - 150
Lindane	0.00975	0.0145		ug/L		148	50 - 150
Malathion	0.0975	0.101		ug/L		104	50 - 150
Methoxychlor	0.0488	0.0756	^3+	ug/L		155	50 - 150
Metolachlor	0.0488	0.0570		ug/L		117	50 - 150
Molinate	0.0975	0.108		ug/L		111	50 - 150
Naphthalene	0.0975	0.105		ug/L		108	50 - 150
Parathion	0.0975	0.0863	J	ug/L		88	50 - 150
Pendimethalin (Penoxaline)	0.0975	0.0953	J	ug/L		98	50 - 150
Phenanthrene	0.0390	0.0431		ug/L		110	50 - 150
Propachlor	0.0488	0.0524		ug/L		108	50 - 150
Pyrene	0.0488	0.0482	J	ug/L		99	50 - 150
Simazine	0.0488	0.0514		ug/L		105	50 - 150
Terbacil	0.0975	0.0998		ug/L		102	50 - 150
Terbutylazine	0.0975	0.105		ug/L		108	50 - 150
Thiobencarb	0.0975	0.111		ug/L		114	50 - 150
trans-Nonachlor	0.0244	0.0285	J	ug/L		117	50 - 150
Trifluralin	0.0975	0.0987		ug/L		101	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	92		70 - 130
Triphenylphosphate	98		70 - 130

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: 380-113658-P-1-A MS
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	<0.097		1.92	1.90		ug/L		99	70 - 130
2,4'-DDD	<0.097		1.92	2.13		ug/L		111	70 - 130
2,4'-DDE	<0.097		1.92	2.10		ug/L		109	70 - 130
2,4'-DDT	<0.097		1.92	2.07		ug/L		108	70 - 130
2,4-Dinitrotoluene	<0.097		1.92	2.34		ug/L		121	70 - 130
2,6-Dinitrotoluene	<0.097		1.92	2.23		ug/L		116	70 - 130
2-Methylnaphthalene	<0.097		1.92	1.86		ug/L		97	70 - 130
4,4'-DDD	<0.097		1.92	2.14		ug/L		111	70 - 130
4,4'-DDE	<0.097		1.92	2.06		ug/L		107	70 - 130
4,4'-DDT	<0.097		1.92	2.14		ug/L		111	70 - 130
Acenaphthene	<0.097		1.92	1.97		ug/L		102	70 - 130
Acenaphthylene	<0.097		1.92	1.89		ug/L		98	70 - 130
Acetochlor	<0.097		1.92	2.13		ug/L		111	70 - 130
Alachlor	<0.048		1.92	2.14		ug/L		111	70 - 130
alpha-BHC	<0.097		1.92	2.02		ug/L		105	70 - 130
alpha-Chlordane	<0.048		1.92	2.25		ug/L		117	70 - 130
Anthracene	<0.019		1.92	1.37		ug/L		71	70 - 130
Atrazine	<0.048		1.92	2.06		ug/L		107	70 - 130
Benz(a)anthracene	<0.048		1.92	1.94		ug/L		101	70 - 130
Benzo[a]pyrene	<0.019		1.92	1.79		ug/L		93	70 - 130
Benzo[b]fluoranthene	<0.019		1.92	1.95		ug/L		101	70 - 130
Benzo[g,h,i]perylene	<0.048		1.92	2.02		ug/L		105	70 - 130
Benzo[k]fluoranthene	<0.019		1.92	2.03		ug/L		106	70 - 130
beta-BHC	<0.097		1.92	2.10		ug/L		109	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.92	1.69		ug/L		88	70 - 130
Bromacil	<0.097		1.92	2.09		ug/L		109	70 - 130
Butachlor	<0.048		1.92	2.01		ug/L		104	70 - 130
Butylbenzylphthalate	<0.48		1.92	2.04		ug/L		106	70 - 130
Chlorobenzilate	<0.097		1.92	2.12		ug/L		110	70 - 130
Chloroneb	<0.097		1.92	1.91		ug/L		99	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.92	2.16		ug/L		112	70 - 130
Chlorpyrifos	<0.048		1.92	2.16		ug/L		112	70 - 130
Chrysene	<0.019		1.92	1.99		ug/L		104	70 - 130
delta-BHC	<0.097		1.92	2.08		ug/L		108	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.92	1.79		ug/L		93	70 - 130
Dibenz(a,h)anthracene	<0.048		1.92	2.01		ug/L		104	70 - 130
Diclorvos (DDVP)	<0.048		1.92	1.85		ug/L		96	70 - 130
Dieldrin	<0.0097	^3+	1.92	2.06		ug/L		107	70 - 130
Diethylphthalate	<0.48		1.92	2.02		ug/L		105	70 - 130
Dimethylphthalate	<0.48		1.92	1.97		ug/L		103	70 - 130
Di-n-butyl phthalate	<0.97		3.85	4.09		ug/L		106	70 - 130
Di-n-octyl phthalate	<0.097		1.92	1.64		ug/L		85	70 - 130
Endosulfan I (Alpha)	<0.097		1.92	2.03		ug/L		106	70 - 130
Endosulfan II (Beta)	<0.097		1.92	1.99		ug/L		103	70 - 130
Endosulfan sulfate	<0.097		1.92	2.09		ug/L		108	70 - 130
Endrin	<0.0097		1.92	2.27		ug/L		118	70 - 130
Endrin aldehyde	<0.097		1.92	1.84		ug/L		96	60 - 130
EPTC	<0.097		1.92	1.94		ug/L		101	70 - 130

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: 380-113658-P-1-A MS
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Fluoranthene	<0.097		1.92	2.11		ug/L		110	70 - 130
Fluorene	<0.048		1.92	2.02		ug/L		105	70 - 130
gamma-Chlordane	<0.048		1.92	2.23		ug/L		116	70 - 130
Heptachlor	<0.0097		1.92	1.99		ug/L		103	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.92	2.14		ug/L		111	70 - 130
Hexachlorobenzene	<0.048		1.92	2.01		ug/L		104	70 - 130
Hexachlorocyclopentadiene	<0.048		1.92	2.14		ug/L		111	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.92	1.95		ug/L		102	70 - 130
Isophorone	<0.097		1.92	1.82		ug/L		94	70 - 130
Lindane	<0.0097	^3+	1.92	1.97		ug/L		102	70 - 130
Malathion	<0.097		1.92	2.14		ug/L		111	70 - 130
Methoxychlor	<0.048		1.92	2.02		ug/L		105	70 - 130
Metolachlor	<0.048		1.92	2.23		ug/L		116	70 - 130
Molinate	<0.097		1.92	1.95		ug/L		101	70 - 130
Naphthalene	<0.097		1.92	1.81		ug/L		94	70 - 130
Parathion	<0.097		1.92	2.38		ug/L		124	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.92	2.29		ug/L		119	70 - 130
Phenanthrene	<0.039		1.92	1.85		ug/L		96	70 - 130
Propachlor	<0.048		1.92	1.98		ug/L		103	70 - 130
Pyrene	<0.048		1.92	2.05		ug/L		107	70 - 130
Simazine	<0.048		1.92	2.12		ug/L		110	70 - 130
Terbacil	<0.097		1.92	2.27		ug/L		118	70 - 130
Terbutylazine	<0.097		1.92	2.20		ug/L		114	70 - 130
Thiobencarb	<0.097		1.92	1.99		ug/L		104	70 - 130
trans-Nonachlor	<0.048		1.92	2.24		ug/L		116	70 - 130
Trifluralin	<0.097		1.92	2.03		ug/L		105	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	109		70 - 130

Lab Sample ID: 380-113675-B-1-A DU
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
1-Methylnaphthalene	<0.098		<0.099		ug/L		NC	20
2,4'-DDD	<0.098		<0.099		ug/L		NC	20
2,4'-DDE	<0.098		<0.099		ug/L		NC	20
2,4'-DDT	<0.098		<0.099		ug/L		NC	20
2,4-Dinitrotoluene	<0.098		<0.099		ug/L		NC	20
2,6-Dinitrotoluene	<0.098		<0.099		ug/L		NC	20
2-Methylnaphthalene	<0.098		<0.099		ug/L		NC	20
4,4'-DDD	<0.098		<0.099		ug/L		NC	20
4,4'-DDE	<0.098		<0.099		ug/L		NC	20
4,4'-DDT	<0.098		<0.099		ug/L		NC	20
Acenaphthene	<0.098		<0.099		ug/L		NC	20

QC Sample Results

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

Job ID: 380-113707-1
 SDG: Weekly

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

Lab Sample ID: 380-113675-B-1-A DU
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Acenaphthylene	<0.098		<0.099		ug/L		NC	20
Acetochlor	<0.098		<0.099		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.098		<0.099		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.020		<0.020		ug/L		NC	20
Atrazine	<0.049		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.020		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.020		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.020		<0.020		ug/L		NC	20
beta-BHC	<0.098		<0.099		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.59		ug/L		NC	20
Bromacil	<0.098		<0.099		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		ug/L		NC	20
Chlorobenzilate	<0.098		<0.099		ug/L		NC	20
Chloroneb	<0.098		<0.099		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.098		<0.099		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.020		<0.020		ug/L		NC	20
delta-BHC	<0.098		<0.099		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.59		<0.59		ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.049		ug/L		NC	20
Dieldrin	<0.0098	^3+	<0.0099		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	<0.98		<0.99		ug/L		NC	20
Di-n-octyl phthalate	<0.098		<0.099		ug/L		NC	20
Endosulfan I (Alpha)	<0.098		<0.099		ug/L		NC	20
Endosulfan II (Beta)	<0.098		<0.099		ug/L		NC	20
Endosulfan sulfate	<0.098		<0.099		ug/L		NC	20
Endrin	<0.0098		<0.0099		ug/L		NC	20
Endrin aldehyde	<0.098		<0.099		ug/L		NC	20
EPTC	<0.098		<0.099		ug/L		NC	20
Fluoranthene	<0.098		<0.099		ug/L		NC	20
Fluorene	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20
Heptachlor	<0.0098		<0.0099		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0098		<0.0099		ug/L		NC	20
Hexachlorobenzene	<0.049		<0.049		ug/L		NC	20
Hexachlorocyclopentadiene	<0.049		<0.049		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.049		<0.049		ug/L		NC	20
Isophorone	<0.098		<0.099		ug/L		NC	20
Lindane	<0.0098	^3+	<0.0099		ug/L		NC	20
Malathion	<0.098		<0.099		ug/L		NC	20
Methoxychlor	<0.049		<0.049		ug/L		NC	20

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: 380-113675-B-1-A DU
Matrix: Water
Analysis Batch: 109405

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 109135

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Metolachlor	<0.049		<0.049		ug/L		NC	20
Molinate	<0.098		<0.099		ug/L		NC	20
Naphthalene	<0.098		<0.099		ug/L		NC	20
Parathion	<0.098		<0.099		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.098		<0.099		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.049		<0.049		ug/L		NC	20
Pyrene	<0.049		<0.049		ug/L		NC	20
Simazine	<0.049		<0.049		ug/L		NC	20
Terbacil	<0.098		<0.099		ug/L		NC	20
Terbutylazine	<0.098		<0.099		ug/L		NC	20
Thiobencarb	<0.098		<0.099		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.20		<0.20		ug/L		NC	20
trans-Nonachlor	<0.049		<0.049		ug/L		NC	20
Trifluralin	<0.098		<0.099		ug/L		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	110		70 - 130

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

Lab Sample ID: MB 570-483623/1-A
Matrix: Water
Analysis Batch: 486969

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 483623

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	09/23/24 05:22	10/02/24 14:10	1

Lab Sample ID: MB 570-483623/1-A
Matrix: Water
Analysis Batch: 487417

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 483623

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	09/23/24 05:22	10/03/24 15:09	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	64		33 - 139	09/23/24 05:22	10/03/24 15:09	1
2-Fluorobiphenyl (Surr)	60		33 - 126	09/23/24 05:22	10/03/24 15:09	1
2-Fluorophenol (Surr)	41		12 - 120	09/23/24 05:22	10/03/24 15:09	1
Nitrobenzene-d5 (Surr)	63		36 - 120	09/23/24 05:22	10/03/24 15:09	1
Phenol-d6 (Surr)	26		10 - 120	09/23/24 05:22	10/03/24 15:09	1
p-Terphenyl-d14 (Surr)	83		47 - 131	09/23/24 05:22	10/03/24 15:09	1

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: MB 570-483623/1-A
Matrix: Water
Analysis Batch: 485893

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 483623

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
2-Methylnaphthalene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Acenaphthene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Acenaphthylene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Anthracene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Benzo[a]anthracene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Benzo[a]pyrene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Chrysene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Fluoranthene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Fluorene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Naphthalene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Phenanthrene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Pyrene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	77		28 - 127	09/23/24 05:22	09/29/24 08:58	1
2-Fluorobiphenyl (Surr)	41		31 - 120	09/23/24 05:22	09/29/24 08:58	1
2-Fluorophenol (Surr)	39		17 - 120	09/23/24 05:22	09/29/24 08:58	1
Nitrobenzene-d5 (Surr)	43		27 - 120	09/23/24 05:22	09/29/24 08:58	1
Phenol-d6 (Surr)	25		10 - 120	09/23/24 05:22	09/29/24 08:58	1
p-Terphenyl-d14 (Surr)	55		45 - 120	09/23/24 05:22	09/29/24 08:58	1

Lab Sample ID: LCS 570-483623/2-A
Matrix: Water
Analysis Batch: 485893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 483623

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	40.0	27.6		ug/L		69	47 - 120
2-Methylnaphthalene	40.0	27.4		ug/L		68	43 - 120
Acenaphthene	40.0	38.3		ug/L		96	60 - 132
Acenaphthylene	40.0	39.5		ug/L		99	54 - 126
Anthracene	40.0	41.3		ug/L		103	43 - 120
Benzo[a]anthracene	40.0	42.9		ug/L		107	42 - 133
Benzo[a]pyrene	40.0	43.7		ug/L		109	32 - 148
Benzo[b]fluoranthene	40.0	42.4		ug/L		106	42 - 140
Benzo[g,h,i]perylene	40.0	42.9		ug/L		107	1 - 195
Benzo[k]fluoranthene	40.0	42.7		ug/L		107	25 - 146
Chrysene	40.0	41.1		ug/L		103	44 - 140
Dibenz(a,h)anthracene	40.0	43.6		ug/L		109	1 - 200
Fluoranthene	40.0	42.6		ug/L		106	43 - 121
Fluorene	40.0	40.1		ug/L		100	70 - 120
Indeno[1,2,3-cd]pyrene	40.0	43.5		ug/L		109	1 - 151
Naphthalene	40.0	25.7		ug/L		64	36 - 120

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: LCS 570-483623/2-A
Matrix: Water
Analysis Batch: 485893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 483623

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenanthrene	40.0	41.4		ug/L		104	65 - 120
Pyrene	40.0	41.7		ug/L		104	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	86		28 - 127
2-Fluorobiphenyl (Surr)	52		31 - 120
2-Fluorophenol (Surr)	58		17 - 120
Nitrobenzene-d5 (Surr)	39		27 - 120
Phenol-d6 (Surr)	39		10 - 120
p-Terphenyl-d14 (Surr)	60		45 - 120

Lab Sample ID: LCSD 570-483623/3-A
Matrix: Water
Analysis Batch: 485893

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 483623

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	40.0	28.1		ug/L		70	47 - 120	2	20
2-Methylnaphthalene	40.0	27.2		ug/L		68	43 - 120	1	20
Acenaphthene	40.0	39.7		ug/L		99	60 - 132	3	29
Acenaphthylene	40.0	40.9		ug/L		102	54 - 126	3	45
Anthracene	40.0	42.7		ug/L		107	43 - 120	3	40
Benzo[a]anthracene	40.0	44.5		ug/L		111	42 - 133	4	32
Benzo[a]pyrene	40.0	45.1		ug/L		113	32 - 148	3	43
Benzo[b]fluoranthene	40.0	44.2		ug/L		110	42 - 140	4	43
Benzo[g,h,i]perylene	40.0	44.4		ug/L		111	1 - 195	3	61
Benzo[k]fluoranthene	40.0	44.5		ug/L		111	25 - 146	4	38
Chrysene	40.0	42.5		ug/L		106	44 - 140	3	53
Dibenz(a,h)anthracene	40.0	45.3		ug/L		113	1 - 200	4	75
Fluoranthene	40.0	44.0		ug/L		110	43 - 121	3	40
Fluorene	40.0	41.2		ug/L		103	70 - 120	3	23
Indeno[1,2,3-cd]pyrene	40.0	44.6		ug/L		111	1 - 151	2	60
Naphthalene	40.0	26.1		ug/L		65	36 - 120	2	39
Phenanthrene	40.0	42.4		ug/L		106	65 - 120	2	24
Pyrene	40.0	43.6		ug/L		109	70 - 120	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	89		28 - 127
2-Fluorobiphenyl (Surr)	52		31 - 120
2-Fluorophenol (Surr)	58		17 - 120
Nitrobenzene-d5 (Surr)	39		27 - 120
Phenol-d6 (Surr)	39		10 - 120
p-Terphenyl-d14 (Surr)	62		45 - 120

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: 380-113707-A-3-A MS
Matrix: Water
Analysis Batch: 485893

Client Sample ID: 380-113707-A-3-A MS
Prep Type: Total/NA
Prep Batch: 483623

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
1-Methylnaphthalene	<0.19		38.5	27.5		ug/L		71		36 - 120
2-Methylnaphthalene	<0.19		38.5	26.2		ug/L		68		32 - 124
Acenaphthene	<0.19		38.5	38.0		ug/L		99		47 - 145
Acenaphthylene	<0.19		38.5	38.6		ug/L		100		33 - 145
Anthracene	<0.19		38.5	39.5		ug/L		102		27 - 133
Benzo[a]anthracene	<0.19		38.5	41.8		ug/L		108		33 - 143
Benzo[a]pyrene	<0.19		38.5	42.3		ug/L		110		17 - 163
Benzo[b]fluoranthene	<0.19		38.5	41.3		ug/L		107		24 - 159
Benzo[g,h,i]perylene	<0.19		38.5	41.2		ug/L		107		1 - 219
Benzo[k]fluoranthene	<0.19		38.5	40.9		ug/L		106		11 - 162
Chrysene	<0.19		38.5	39.5		ug/L		103		17 - 168
Dibenz(a,h)anthracene	<0.19		38.5	41.7		ug/L		108		1 - 227
Fluoranthene	<0.19		38.5	41.1		ug/L		107		26 - 137
Fluorene	<0.19		38.5	38.8		ug/L		101		59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		38.5	41.2		ug/L		107		1 - 171
Naphthalene	<0.19		38.5	25.4		ug/L		66		21 - 133
Phenanthrene	<0.19		38.5	39.5		ug/L		103		54 - 120
Pyrene	<0.19		38.5	40.7		ug/L		106		52 - 120

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	87		28 - 127
2-Fluorobiphenyl (Surr)	51		31 - 120
2-Fluorophenol (Surr)	51		17 - 120
Nitrobenzene-d5 (Surr)	38		27 - 120
Phenol-d6 (Surr)	34		10 - 120
p-Terphenyl-d14 (Surr)	56		45 - 120

Lab Sample ID: 380-113707-A-3-B MSD
Matrix: Water
Analysis Batch: 485893

Client Sample ID: 380-113707-A-3-B MSD
Prep Type: Total/NA
Prep Batch: 483623

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
1-Methylnaphthalene	<0.19		38.3	27.2		ug/L		71		36 - 120	1	30
2-Methylnaphthalene	<0.19		38.3	26.7		ug/L		70		32 - 124	2	30
Acenaphthene	<0.19		38.3	38.4		ug/L		100		47 - 145	1	48
Acenaphthylene	<0.19		38.3	39.2		ug/L		102		33 - 145	1	74
Anthracene	<0.19		38.3	40.6		ug/L		106		27 - 133	3	66
Benzo[a]anthracene	<0.19		38.3	42.3		ug/L		110		33 - 143	1	53
Benzo[a]pyrene	<0.19		38.3	43.0		ug/L		112		17 - 163	2	72
Benzo[b]fluoranthene	<0.19		38.3	41.4		ug/L		108		24 - 159	0	71
Benzo[g,h,i]perylene	<0.19		38.3	42.4		ug/L		111		1 - 219	3	97
Benzo[k]fluoranthene	<0.19		38.3	42.0		ug/L		110		11 - 162	2	63
Chrysene	<0.19		38.3	40.3		ug/L		105		17 - 168	2	87
Dibenz(a,h)anthracene	<0.19		38.3	42.5		ug/L		111		1 - 227	2	126
Fluoranthene	<0.19		38.3	41.8		ug/L		109		26 - 137	2	66
Fluorene	<0.19		38.3	39.6		ug/L		103		59 - 121	2	38
Indeno[1,2,3-cd]pyrene	<0.19		38.3	42.3		ug/L		110		1 - 171	3	99
Naphthalene	<0.19		38.3	24.9		ug/L		65		21 - 133	2	65

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: 380-113707-A-3-B MSD
Matrix: Water
Analysis Batch: 485893

Client Sample ID: 380-113707-A-3-B MSD
Prep Type: Total/NA
Prep Batch: 483623

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	<0.19		38.3	40.1		ug/L		105	54 - 120	1	39
Pyrene	<0.19		38.3	41.9		ug/L		109	52 - 120	3	49
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
2,4,6-Tribromophenol (Surr)	90		28 - 127								
2-Fluorobiphenyl (Surr)	52		31 - 120								
2-Fluorophenol (Surr)	53		17 - 120								
Nitrobenzene-d5 (Surr)	39		27 - 120								
Phenol-d6 (Surr)	34		10 - 120								
p-Terphenyl-d14 (Surr)	58		45 - 120								

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

Lab Sample ID: MB 570-483045/6
Matrix: Water
Analysis Batch: 483045

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			09/20/24 12:55	1			
MB MB											
Surrogate	%Recovery	Qualifier	Limits						Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		38 - 134						09/20/24 12:55	1	

Lab Sample ID: LCS 570-483045/4
Matrix: Water
Analysis Batch: 483045

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	362		ug/L		91	78 - 120
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene (Surr)	89		38 - 134				

Lab Sample ID: LCSD 570-483045/5
Matrix: Water
Analysis Batch: 483045

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	360		ug/L		90	78 - 120	1	10
LCSD LCSD									
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	92		38 - 134						

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: MRL 570-483045/3
Matrix: Water
Analysis Batch: 483045

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	10.0	11.1		ug/L		111	50 - 150
Surrogate							
	MRL %Recovery	MRL Qualifier	Limits				
4-Bromofluorobenzene (Surr)	86		38 - 134				

Lab Sample ID: 380-113707-3 MS
Matrix: Water
Analysis Batch: 483045

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
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	354		ug/L		88	68 - 122
Surrogate									
	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	91		38 - 134						

Lab Sample ID: 380-113707-3 MSD
Matrix: Water
Analysis Batch: 483045

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
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	351		ug/L		88	68 - 122	1	18
Surrogate											
	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	91		38 - 134								

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

Lab Sample ID: MB 570-483575/1-A
Matrix: Water
Analysis Batch: 485285

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 483575

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		09/22/24 17:36	09/27/24 01:16	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		09/22/24 17:36	09/27/24 01:16	1
C8-C18	<25		25	ug/L		09/22/24 17:36	09/27/24 01:16	1
Surrogate								
	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
n-Octacosane (Surr)	109		60 - 130	09/22/24 17:36	09/27/24 01:16	1		

Lab Sample ID: LCS 570-483575/2-A
Matrix: Water
Analysis Batch: 485285

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 483575

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1230		ug/L		77	56 - 127

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113707-1
SDG: Weekly

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

Lab Sample ID: LCS 570-483575/2-A
Matrix: Water
Analysis Batch: 485285

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 483575

	LCS %Recovery	LCS Qualifier	Limits
<i>Surrogate</i> <i>n-Octacosane (Surr)</i>	118		60 - 130

Lab Sample ID: LCSD 570-483575/3-A
Matrix: Water
Analysis Batch: 485285

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 483575

	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Analyte C10-C28	1600	1280		ug/L		80	56 - 127	4	23
<i>Surrogate</i> <i>n-Octacosane (Surr)</i>									

Lab Sample ID: MRL 570-483575/4-A
Matrix: Water
Analysis Batch: 485285

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 483575

	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	
Analyte C10-C28	0.0200	0.0277		mg/L		138	50 - 150	
<i>Surrogate</i> <i>n-Octacosane (Surr)</i>								

Lab Sample ID: 380-113707-3 MS
Matrix: Water
Analysis Batch: 485285

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 483575

	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Analyte C10-C28	<26		1610	1380		ug/L		86	70 - 130
<i>Surrogate</i> <i>n-Octacosane (Surr)</i>									

Lab Sample ID: 380-113707-3 MSD
Matrix: Water
Analysis Batch: 485285

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 483575

	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Analyte C10-C28	<26		1640	1340		ug/L		82	70 - 130	3	20
<i>Surrogate</i> <i>n-Octacosane (Surr)</i>											

QC Association Summary

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

Job ID: 380-113707-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 109135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113707-1	Ka'amilo Wells	Total/NA	Water	525.2	
380-113707-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	525.2	
MB 380-109135/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-109135/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-109135/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-113658-P-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-113675-B-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 109405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113707-1	Ka'amilo Wells	Total/NA	Water	525.2	109135
380-113707-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	525.2	109135
MB 380-109135/21-A	Method Blank	Total/NA	Water	525.2	109135
LCS 380-109135/23-A	Lab Control Sample	Total/NA	Water	525.2	109135
MRL 380-109135/22-A	Lab Control Sample	Total/NA	Water	525.2	109135
380-113658-P-1-A MS	Matrix Spike	Total/NA	Water	525.2	109135
380-113675-B-1-A DU	Duplicate	Total/NA	Water	525.2	109135

Analysis Batch: 109739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113707-1	Ka'amilo Wells	Total/NA	Water	525.2	109135
380-113707-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	525.2	109135
MRL 380-109135/22-A	Lab Control Sample	Total/NA	Water	525.2	109135

Prep Batch: 483623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113707-1	Ka'amilo Wells	Total/NA	Water	625.1	
MB 570-483623/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-483623/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-483623/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-113707-A-3-A MS	380-113707-A-3-A MS	Total/NA	Water	625.1	
380-113707-A-3-B MSD	380-113707-A-3-B MSD	Total/NA	Water	625.1	

Analysis Batch: 485893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113707-1	Ka'amilo Wells	Total/NA	Water	625.1 SIM	483623
MB 570-483623/1-A	Method Blank	Total/NA	Water	625.1 SIM	483623
LCS 570-483623/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	483623
LCSD 570-483623/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	483623
380-113707-A-3-A MS	380-113707-A-3-A MS	Total/NA	Water	625.1 SIM	483623
380-113707-A-3-B MSD	380-113707-A-3-B MSD	Total/NA	Water	625.1 SIM	483623

Analysis Batch: 486969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113707-1	Ka'amilo Wells	Total/NA	Water	625.1	483623
MB 570-483623/1-A	Method Blank	Total/NA	Water	625.1	483623

Analysis Batch: 487417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113707-1	Ka'amilo Wells	Total/NA	Water	625.1	483623
MB 570-483623/1-A	Method Blank	Total/NA	Water	625.1	483623

QC Association Summary

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

Job ID: 380-113707-1
 SDG: Weekly

GC VOA

Analysis Batch: 483045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113707-1	Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
380-113707-2	TB: Ka'amilo Wells	Total/NA	Water	8015B GRO LL	
380-113707-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	8015B GRO LL	
380-113707-4	TB: HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	8015B GRO LL	
MB 570-483045/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-483045/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-483045/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-483045/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-113707-3 MS	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	8015B GRO LL	
380-113707-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 483575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113707-1	Ka'amilo Wells	Total/NA	Water	3510C	
380-113707-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	3510C	
MB 570-483575/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-483575/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-483575/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-483575/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-113707-3 MS	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	3510C	
380-113707-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	3510C	

Analysis Batch: 485285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113707-1	Ka'amilo Wells	Total/NA	Water	8015B	483575
380-113707-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	8015B	483575
MB 570-483575/1-A	Method Blank	Total/NA	Water	8015B	483575
LCS 570-483575/2-A	Lab Control Sample	Total/NA	Water	8015B	483575
LCSD 570-483575/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	483575
MRL 570-483575/4-A	Lab Control Sample	Total/NA	Water	8015B	483575
380-113707-3 MS	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	8015B	483575
380-113707-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	8015B	483575

Lab Chronicle

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

Job ID: 380-113707-1
SDG: Weekly

Client Sample ID: Ka'amilo Wells
Date Collected: 09/16/24 11:27
Date Received: 09/18/24 10:20

Lab Sample ID: 380-113707-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			109135	KRD3	EA POM	09/19/24 14:00
Total/NA	Analysis	525.2		1	109405	UPAC	EA POM	09/20/24 16:15
Total/NA	Prep	525.2			109135	KRD3	EA POM	09/19/24 14:00
Total/NA	Analysis	525.2		1	109739	UPAC	EA POM	09/23/24 17:55
Total/NA	Prep	625.1			483623	H1SH	EET CAL 4	09/23/24 05:22
Total/NA	Analysis	625.1		1	487417	CG	EET CAL 4	10/03/24 15:32
Total/NA	Prep	625.1			483623	H1SH	EET CAL 4	09/23/24 05:22
Total/NA	Analysis	625.1		1	486969	CG	EET CAL 4	10/02/24 15:47
Total/NA	Prep	625.1			483623	H1SH	EET CAL 4	09/23/24 05:22
Total/NA	Analysis	625.1 SIM		1	485893	PQS1	EET CAL 4	09/29/24 11:53
Total/NA	Analysis	8015B GRO LL		1	483045	A9VE	EET CAL 4	09/20/24 18:59
Total/NA	Prep	3510C			483575	H6FE	EET CAL 4	09/22/24 17:36
Total/NA	Analysis	8015B		1	485285	SP9M	EET CAL 4	09/27/24 02:20

Client Sample ID: TB: Ka'amilo Wells
Date Collected: 09/16/24 11:27
Date Received: 09/18/24 10:20

Lab Sample ID: 380-113707-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	483045	A9VE	EET CAL 4	09/20/24 20:32

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Date Collected: 09/16/24 10:08
Date Received: 09/18/24 10:20

Lab Sample ID: 380-113707-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			109135	KRD3	EA POM	09/19/24 14:00
Total/NA	Analysis	525.2		1	109405	UPAC	EA POM	09/20/24 16:35
Total/NA	Prep	525.2			109135	KRD3	EA POM	09/19/24 14:00
Total/NA	Analysis	525.2		1	109739	UPAC	EA POM	09/23/24 18:15
Total/NA	Analysis	8015B GRO LL		1	483045	A9VE	EET CAL 4	09/20/24 16:46
Total/NA	Prep	3510C			483575	H6FE	EET CAL 4	09/22/24 17:36
Total/NA	Analysis	8015B		1	485285	SP9M	EET CAL 4	09/27/24 02:42

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 P1
Date Collected: 09/16/24 10:08
Date Received: 09/18/24 10:20

Lab Sample ID: 380-113707-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	483045	A9VE	EET CAL 4	09/20/24 20:55

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: 380-113707-1
 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	11-16-24
Arkansas DEQ	State	88-0161	07-02-25
California	Los Angeles County Sanitation Districts	9257304	08-01-24 *
California	SCAQMD LAP	17LA0919	11-30-24
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

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

Job ID: 380-113707-1
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
Nevada	State	CA00111	07-31-25
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-24

- 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: 380-113707-1
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: 380-113707-1
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-113707-1	Ka'amilo Wells	Water	09/16/24 11:27	09/18/24 10:20
380-113707-2	TB: Ka'amilo Wells	Water	09/16/24 11:27	09/18/24 10:20
380-113707-3	HALAWA WELLS UNITS 1 & 2 P1	Water	09/16/24 10:08	09/18/24 10:20
380-113707-4	TB: HALAWA WELLS UNITS 1 & 2 P1	Water	09/16/24 10:08	09/18/24 10:20

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

ORIGIN ID HIKKA (808) 748-5840
BWS CHEM LAB
HONOLULU BOARD OF WATER SUPPLY
630 S BERETANIA ST
CHEMICAL LABORATORY
HONOLULU HI 96843
UNITED STATES US

SHIP DATE: 17SEP24
ACTWGHT 57.00 LB
CAD 258050552/INET4535

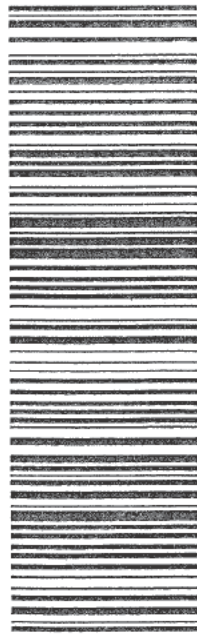
TO EUROFINS RECEIVING DEPARTMENT
EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR

POMONA CA 91768 REF
(626) 386-1100

583J244EF9AEC3



1 of 5
TRK# 7786 4951 0020
MASTER #
WM ONTA 91768
CA-US ONT
WED - 18 SEP 10:30A
PRIORITY OVERNIGHT



8/18/24 2.2-0.2 = 2.0 GAZ
WMS 9/18/24 10-20

After printing this label
1 Fold the printed page along the horizontal line
2 Place label in shipping pouch and affix it to your shipment

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on
FedEx.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage,
delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document
your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from
FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and
other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized
declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g.
jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed
within strict time limits, see current FedEx Service Guide.

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

ORIGIN ID HIKA (808) 746-5840
BWS CHEM LAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST.
CHEMICAL LABORATORY
HONOLULU HI 96843
UNITED STATES US

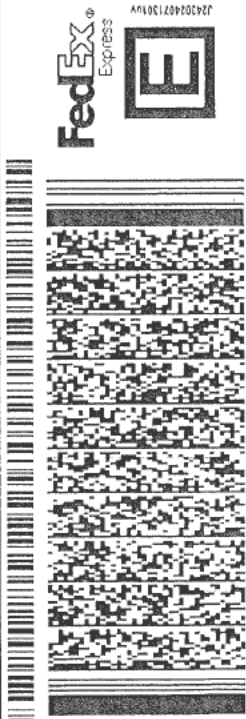
SHIP DATE 17SEP24
ACTWGT 57.00 LB
CAD 258050552/INET/4535
BILL RECIPIENT

TO EUROFINS RECEIVING DEPARTMENT
EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR

583J2/4EF9/AE3

POMONA CA 91768
(626) 386-1100 REF.

DEPT



WED - 18 SEP 10:30A
PRIORITY OVERNIGHT

3 of 5

MPS# 7786 4951 0042

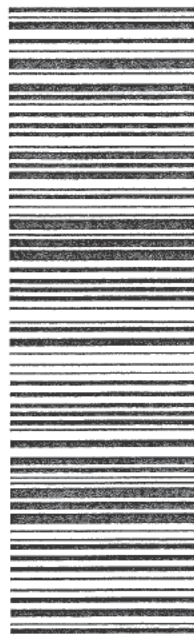
Mst# 7786 4951 0020

0201

91768

WM ONTA

CA-US ONT



6882 5-30-2 = 5-1 GRZ
4110, 9/18/24 10-2e

After printing this label
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1 Fold the printed page along the horizontal line
2 Place label in shipping pouch and affix it to your shipment

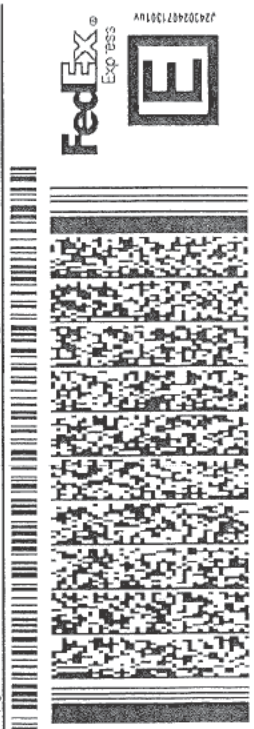
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

ORIGIN ID HIKA (808) 748-5840
BWS CHEMLAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST.
CHEMICAL LABORATORY
HONOLULU HI 96843
UNITED STATES US

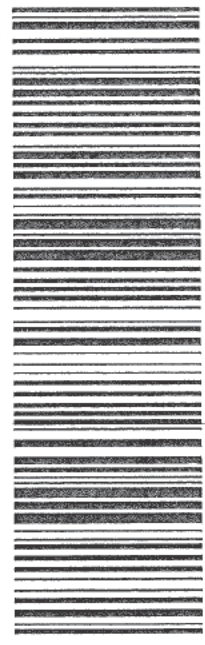
SHIP DATE 17SEP24
ACTWGT 57.00 LB
CAD 2580505521NET4535
BILL RECIPIENT

TO EUROFINS RECEIVING DEPARTMENT
EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR

POMONA CA 91768 REF
(626) 386-1100
INV PO DEPT



4 of 5
MPS# 7786 4951 0053
Mstr# 7786 4951 0020
WM ONTA
0263
WED - 18 SEP 10:30A
PRIORITY OVERNIGHT
0201
91768
CA-US ONT



DBA/3-9-2023-7
602

9/18/24
10-20

After printing this label
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1 Fold the printed page along the horizontal line
2 Place label in shipping pouch and affix it to your shipment

583J2MEF9VAE3

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

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Arada, Rachelle		Carrier Tracking No(s): 380-154573.1								
Client Contact: Shipping/Receiving		E-Mail: Rachelle.Arada@eurofins.com		Page: Page 1 of 1								
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State Hawaii		Job #: 380-113707-1								
Address: 2841 Dow Avenue, Suite 100		Due Date Requested: 10/1/2024		Preservation Codes:								
City: Tustin		TAT Requested (days):		Analysis Requested:								
State, Zip: CA, 92780		PO #:		380-113707 Chain of Custody								
Phone: 714-895-5494 (Tel)		WO #:		Total Number of Containers								
Email:		Project #: 38001111		Other								
Project Name: RED-HILL		SSOW#:										
Site: Honolulu BWS Sites												
Sample Identification	Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Swell, On-water)	Field Filtered Sample (Yes or No)	Perform (MSD) Yes or No	625.1 SIM/625 Prep (MOD) Extended PAH List	626.1625 Prep (MOD) Tentatively Identified Compounds (Hold)	8015B GRO LL/6030C (MOD) GRO	8015B GRO_LL_CS/310C_LL_HML Ranges: C16-C24/C24-C36/C8-C18	Special Instructions/Note:
Ka'amilo Wells (380-113707-1)		9/16/24	11:27 Hawaiian	G	Water	X	X	X	X	X	X	MRLs are needed. initial volume (500ml) and final volume (2ml). MRLs are needed.
TB: Ka'amilo Wells (380-113707-2)		9/16/24	11:27 Hawaiian	G	Water	X	X	X	X	X	X	MRLs are needed.
HALAWA WELLS UNITS 1 & 2 Pt (380-113707-3)		9/16/24	10:08 Hawaiian	G	Water	X	X	X	X	X	X	MRLs are needed. initial volume (500ml) and final volume (2ml). MRLs are needed.
HALAWA WELLS UNITS 1 & 2 Pt (380-113707-3MS)		9/16/24	10:08 Hawaiian	G	Water	X	X	X	X	X	X	MRLs are needed. initial volume (500ml) and final volume (2ml). MRLs are needed.
HALAWA WELLS UNITS 1 & 2 Pt (380-113707-3MSD)		9/16/24	10:08 Hawaiian	G	Water	X	X	X	X	X	X	MRLs are needed. initial volume (500ml) and final volume (2ml). MRLs are needed.
TB: HALAWA WELLS UNITS 1 & 2 Pt (380-113707-4)		9/16/24	10:08 Hawaiian	G	Water	X	X	X	X	X	X	MRLs are needed.

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/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
 Unconfirmed
 Deliverable Requested: I II III, IV Other (specify) _____ Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____
 Requiring by: *[Signature]* Date/Time: 9/19/24 12:00 Company: *[Signature]* Company: _____
 Requiring by: _____ Date/Time: _____ Company: _____
 Requiring by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: _____ Custody Seal No. _____
 Δ Yes Δ No
 Cooler Temperature(s) °C and Other Remarks: 20/20 seal



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-113707-1

SDG Number: Weekly

Login Number: 113707

List Number: 1

Creator: Do, Michelle

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: 380-113707-1

SDG Number: Weekly

Login Number: 113707

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 09/19/24 01:26 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	2.0
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	

