

ANALYTICAL REPORT

PREPARED FOR

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City & County of Honolulu
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Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
Weekly
RUSH Weekly Red Hill

JOB NUMBER

380-129325-1

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Compliance Statement

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

Authorization



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Definitions/Glossary

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

Job ID: 380-129325-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

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

GC/MS Semi VOA TICs

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

GC Semi VOA

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased

Glossary

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

Case Narrative

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

Job ID: 380-129325-1

Job ID: 380-129325-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-129325-1

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

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

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

Receipt

The samples were received on 1/9/2025 9:57 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.1°C.

GC/MS Semi VOA

Method 625.1: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-522668. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 625.1_SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-522668. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 525.2_PREC: The matrix spike (MS) recovery for preparation batch 380-127720 and analytical batch 380-128026 were below control limits for Anthracene. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Gasoline Range Organics

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

Diesel Range Organics

Method 8015B_DRO_LL_CS: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-522975. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 8015B_DRO_LL_CS: The method reporting limit check (MRL) for preparation batch 570-522975 and analytical batch 570-525018 recovered outside control limits for the following analytes: C10-C28. These analytes were biased high in the MRL and were not detected in the associated samples; therefore, the data have been reported.

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

Eurofins Eaton Analytical Pomona

Detection Summary

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

Job ID: 380-129325-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-129325-1

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 380-129325-2

No Detections.

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

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-129325-1
 SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-129325-1

Date Collected: 01/07/25 10:00

Matrix: Water

Date Received: 01/09/25 09:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
2,4'-DDD	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
2,4'-DDE	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
2,4'-DDT	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
2,4-Dinitrotoluene	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
2,6-Dinitrotoluene	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
2-Methylnaphthalene	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
4,4'-DDD	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
4,4'-DDE	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
4,4'-DDT	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Acenaphthene	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Acenaphthylene	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Acetochlor	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Alachlor	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
alpha-BHC	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
alpha-Chlordane	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Anthracene	<0.020	F1	0.020	ug/L		01/14/25 08:40	01/15/25 13:00	1
Atrazine	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Benz(a)anthracene	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Benzo[a]pyrene	<0.020		0.020	ug/L		01/14/25 08:40	01/15/25 13:00	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		01/14/25 08:40	01/15/25 13:00	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		01/14/25 08:40	01/15/25 13:00	1
beta-BHC	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		01/14/25 08:40	01/15/25 13:00	1
Bromacil	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Butachlor	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Butylbenzylphthalate	<0.50		0.50	ug/L		01/14/25 08:40	01/15/25 13:00	1
Chlorobenzilate	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Chloroneb	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Chlorothalonil (Draconil, Bravo)	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Chlorpyrifos	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Chrysene	<0.020		0.020	ug/L		01/14/25 08:40	01/15/25 13:00	1
delta-BHC	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		01/14/25 08:40	01/15/25 13:00	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Dieldrin	<0.010		0.010	ug/L		01/14/25 08:40	01/15/25 13:00	1
Diethylphthalate	<0.50		0.50	ug/L		01/14/25 08:40	01/15/25 13:00	1
Dimethylphthalate	<0.50		0.50	ug/L		01/14/25 08:40	01/15/25 13:00	1
Di-n-butyl phthalate	<1.0		1.0	ug/L		01/14/25 08:40	01/15/25 13:00	1
Di-n-octyl phthalate	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Endosulfan I (Alpha)	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Endosulfan II (Beta)	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Endosulfan sulfate	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Endrin	<0.010		0.010	ug/L		01/14/25 08:40	01/15/25 13:00	1
Endrin aldehyde	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
EPTC	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Fluoranthene	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1

Client Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-129325-1

Date Collected: 01/07/25 10:00

Matrix: Water

Date Received: 01/09/25 09:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
gamma-Chlordane	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Heptachlor	<0.010		0.010	ug/L		01/14/25 08:40	01/15/25 13:00	1
Heptachlor epoxide (isomer B)	<0.010		0.010	ug/L		01/14/25 08:40	01/15/25 13:00	1
Hexachlorobenzene	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Isophorone	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Lindane	<0.010		0.010	ug/L		01/14/25 08:40	01/15/25 13:00	1
Malathion	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Methoxychlor	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Metolachlor	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Molinate	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Naphthalene	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Parathion	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Pendimethalin (Penoxaline)	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Phenanthrene	<0.040		0.040	ug/L		01/14/25 08:40	01/15/25 13:00	1
Propachlor	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Pyrene	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Simazine	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Terbacil	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Terbutylazine	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Thiobencarb	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		01/14/25 08:40	01/15/25 13:00	1
trans-Nonachlor	<0.050		0.050	ug/L		01/14/25 08:40	01/15/25 13:00	1
Trifluralin	<0.10		0.10	ug/L		01/14/25 08:40	01/15/25 13:00	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	01/14/25 08:40	01/15/25 13:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	01/14/25 08:40	01/15/25 13:00	1
Perylene-d12	90		70 - 130	01/14/25 08:40	01/15/25 13:00	1
Triphenylphosphate	106		70 - 130	01/14/25 08:40	01/15/25 13:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
2-Methylnaphthalene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Acenaphthene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Acenaphthylene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Anthracene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Benzo[a]anthracene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Benzo[a]pyrene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Chrysene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Fluoranthene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-129325-1

Date Collected: 01/07/25 10:00

Matrix: Water

Date Received: 01/09/25 09:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Naphthalene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Phenanthrene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1
Pyrene	<0.19		0.19	ug/L		01/14/25 05:49	01/17/25 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	68		28 - 127	01/14/25 05:49	01/17/25 16:54	1
2-Fluorobiphenyl (Surr)	56		31 - 120	01/14/25 05:49	01/17/25 16:54	1
2-Fluorophenol (Surr)	34		17 - 120	01/14/25 05:49	01/17/25 16:54	1
Nitrobenzene-d5 (Surr)	54		27 - 120	01/14/25 05:49	01/17/25 16:54	1
Phenol-d6 (Surr)	21		10 - 120	01/14/25 05:49	01/17/25 16:54	1
p-Terphenyl-d14 (Surr)	60		45 - 120	01/14/25 05:49	01/17/25 16:54	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	01/14/25 05:49	01/21/25 09:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	71		33 - 139	01/14/25 05:49	01/21/25 09:00	1
2-Fluorobiphenyl (Surr)	53		33 - 126	01/14/25 05:49	01/21/25 09:00	1
2-Fluorophenol (Surr)	39		12 - 120	01/14/25 05:49	01/21/25 09:00	1
Nitrobenzene-d5 (Surr)	59		36 - 120	01/14/25 05:49	01/21/25 09:00	1
Phenol-d6 (Surr)	24		10 - 120	01/14/25 05:49	01/21/25 09:00	1
p-Terphenyl-d14 (Surr)	66		47 - 131	01/14/25 05:49	01/21/25 09:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			01/16/25 15:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		38 - 134		01/16/25 15:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<27		27	ug/L		01/14/25 16:55	01/21/25 19:46	1
Motor Oil Range Organics [C24-C36]	<27		27	ug/L		01/14/25 16:55	01/21/25 19:46	1
C8-C18	<27		27	ug/L		01/14/25 16:55	01/21/25 19:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	123		60 - 130	01/14/25 16:55	01/21/25 19:46	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 380-129325-2

Date Collected: 01/07/25 10:00

Matrix: Water

Date Received: 01/09/25 09:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			01/16/25 14:40	1

Client Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

Client Sample ID: TRIP BLANK

Lab Sample ID: 380-129325-2

Date Collected: 01/07/25 10:00

Matrix: Water

Date Received: 01/09/25 09:57

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
4-Bromofluorobenzene (Surr)	94		38 - 134		01/16/25 14:40	1

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

Action Limit Summary

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

Job ID: 380-129325-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-129325-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Alachlor	<0.050		ug/L	2	0.050	525.2	Total/NA
Atrazine	<0.050		ug/L	3	0.050	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.60		ug/L	6	0.60	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.60		ug/L	400	0.60	525.2	Total/NA
Endrin	<0.010		ug/L	2	0.010	525.2	Total/NA
Heptachlor	<0.010		ug/L	0.4	0.010	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.010		ug/L	0.2	0.010	525.2	Total/NA
Hexachlorobenzene	<0.050		ug/L	1	0.050	525.2	Total/NA
Hexachlorocyclopentadiene	<0.050		ug/L	50	0.050	525.2	Total/NA
Lindane	<0.010		ug/L	0.2	0.010	525.2	Total/NA
Methoxychlor	<0.050		ug/L	40	0.050	525.2	Total/NA
Simazine	<0.050		ug/L	4	0.050	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Surrogate Summary

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

Job ID: 380-129325-1
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)
380-129325-1	HALAWA SHAFT VIEWING POC	97	90	106
380-129325-1 MS	HALAWA SHAFT VIEWING POOL	98	92	102
380-129616-N-1-A DU	Duplicate	99	96	102
LCS 380-127720/23-A	Lab Control Sample	98	94	104
MB 380-127720/21-A	Method Blank	93	87	107
MRL 380-127720/22-A	Lab Control Sample	95	92	100

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)
380-129325-1	HALAWA SHAFT VIEWING POC	71	53	39	59	24	66
MB 570-522668/1-A	Method Blank	62	46	38	55	25	68

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)
380-129325-1	HALAWA SHAFT VIEWING POC	68	56	34	54	21	60
LCS 570-522668/2-A	Lab Control Sample	72	70	47	58	33	69
LCSD 570-522668/3-A	Lab Control Sample Dup	65	61	44	52	31	65
MB 570-522668/1-A	Method Blank	58	46	32	46	21	59

Surrogate Legend

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

Surrogate Summary

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

Job ID: 380-129325-1
 SDG: Weekly

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-129325-1	HALAWA SHAFT VIEWING POC	96
380-129325-1 MS	HALAWA SHAFT VIEWING POOL	102
380-129325-1 MSD	HALAWA SHAFT VIEWING POOL	100
380-129325-2	TRIP BLANK	94
LCS 570-523626/5	Lab Control Sample	105
LCSD 570-523626/6	Lab Control Sample Dup	103
MB 570-523626/7	Method Blank	97
MRL 570-523626/4	Lab Control Sample	100

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)
380-129325-1	HALAWA SHAFT VIEWING POC	123
LCS 570-522975/2-A	Lab Control Sample	117
LCSD 570-522975/3-A	Lab Control Sample Dup	125
MB 570-522975/1-A	Method Blank	123
MRL 570-522975/4-A	Lab Control Sample	133

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: MB 380-127720/21-A
Matrix: Water
Analysis Batch: 128026

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127720

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
2,4'-DDD	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
2,4'-DDE	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
2,4'-DDT	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
2-Methylnaphthalene	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
4,4'-DDD	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
4,4'-DDE	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
4,4'-DDT	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Acenaphthene	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Acenaphthylene	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Acetochlor	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Alachlor	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
alpha-BHC	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
alpha-Chlordane	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Anthracene	<0.019		0.019	ug/L		01/14/25 08:40	01/15/25 12:40	1
Atrazine	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Benz(a)anthracene	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Benzo[a]pyrene	<0.019		0.019	ug/L		01/14/25 08:40	01/15/25 12:40	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		01/14/25 08:40	01/15/25 12:40	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		01/14/25 08:40	01/15/25 12:40	1
beta-BHC	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		01/14/25 08:40	01/15/25 12:40	1
Bromacil	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Butachlor	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Butylbenzylphthalate	<0.49		0.49	ug/L		01/14/25 08:40	01/15/25 12:40	1
Chlorobenzilate	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Chloroneb	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Chlorpyrifos	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Chrysene	<0.019		0.019	ug/L		01/14/25 08:40	01/15/25 12:40	1
delta-BHC	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		01/14/25 08:40	01/15/25 12:40	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Dieldrin	<0.0097		0.0097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Diethylphthalate	<0.49		0.49	ug/L		01/14/25 08:40	01/15/25 12:40	1
Dimethylphthalate	<0.49		0.49	ug/L		01/14/25 08:40	01/15/25 12:40	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		01/14/25 08:40	01/15/25 12:40	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Endosulfan sulfate	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Endrin	<0.0097		0.0097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Endrin aldehyde	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
EPTC	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1

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QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: MB 380-127720/21-A

Matrix: Water

Analysis Batch: 128026

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 127720

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Fluorene	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
gamma-Chlordane	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Heptachlor	<0.0097		0.0097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Hexachlorobenzene	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Isophorone	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Lindane	<0.0097		0.0097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Malathion	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Methoxychlor	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Metolachlor	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Molinate	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Naphthalene	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Parathion	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Phenanthrene	<0.039		0.039	ug/L		01/14/25 08:40	01/15/25 12:40	1
Propachlor	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Pyrene	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Simazine	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Terbacil	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Terbutylazine	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Thiobencarb	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		01/14/25 08:40	01/15/25 12:40	1
trans-Nonachlor	<0.049		0.049	ug/L		01/14/25 08:40	01/15/25 12:40	1
Trifluralin	<0.097		0.097	ug/L		01/14/25 08:40	01/15/25 12:40	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.608	T J	ug/L		3.13	N/A	01/14/25 08:40	01/15/25 12:40	1
Cyclohexasiloxane, dodecamethyl-	0.662	T J N	ug/L		3.86	540-97-6	01/14/25 08:40	01/15/25 12:40	1
9-Octadecenamamide, (Z)-	3.83	T J N	ug/L		7.88	301-02-0	01/14/25 08:40	01/15/25 12:40	1
13-Docosenamamide, (Z)-	0.894	T J N	ug/L		10.41	112-84-5	01/14/25 08:40	01/15/25 12:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	93		70 - 130	01/14/25 08:40	01/15/25 12:40	1
Perylene-d12	87		70 - 130	01/14/25 08:40	01/15/25 12:40	1
Triphenylphosphate	107		70 - 130	01/14/25 08:40	01/15/25 12:40	1

Lab Sample ID: LCS 380-127720/23-A

Matrix: Water

Analysis Batch: 128026

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 127720

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.95	1.91		ug/L		98	70 - 130
2,4'-DDD	1.95	1.89		ug/L		97	70 - 130
2,4'-DDE	1.95	1.83		ug/L		94	70 - 130
2,4'-DDT	1.95	1.89		ug/L		97	70 - 130

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QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: LCS 380-127720/23-A
Matrix: Water
Analysis Batch: 128026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127720

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrotoluene	1.95	1.72		ug/L		88	70 - 130
2,6-Dinitrotoluene	1.95	1.73		ug/L		89	70 - 130
2-Methylnaphthalene	1.95	1.90		ug/L		98	70 - 130
4,4'-DDD	1.95	1.93		ug/L		99	70 - 130
4,4'-DDE	1.95	1.90		ug/L		98	70 - 130
4,4'-DDT	1.95	1.94		ug/L		100	70 - 130
Acenaphthene	1.95	1.80		ug/L		93	70 - 130
Acenaphthylene	1.95	1.85		ug/L		95	70 - 130
Acetochlor	1.95	2.01		ug/L		103	70 - 130
Alachlor	1.95	2.01		ug/L		103	70 - 130
alpha-BHC	1.95	1.98		ug/L		102	70 - 130
alpha-Chlordane	1.95	1.97		ug/L		101	70 - 130
Anthracene	1.95	1.70		ug/L		87	70 - 130
Atrazine	1.95	2.14		ug/L		110	70 - 130
Benz(a)anthracene	1.95	1.76		ug/L		90	70 - 130
Benzo[a]pyrene	1.95	1.66		ug/L		85	70 - 130
Benzo[b]fluoranthene	1.95	1.88		ug/L		96	70 - 130
Benzo[g,h,i]perylene	1.95	1.92		ug/L		99	70 - 130
Benzo[k]fluoranthene	1.95	1.96		ug/L		101	70 - 130
beta-BHC	1.95	1.99		ug/L		102	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	2.13		ug/L		109	70 - 130
Bromacil	1.95	1.95		ug/L		100	70 - 130
Butachlor	1.95	2.11		ug/L		108	70 - 130
Butylbenzylphthalate	1.95	2.21		ug/L		114	70 - 130
Chlorobenzilate	1.95	1.72		ug/L		89	70 - 130
Chloroneb	1.95	1.88		ug/L		96	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.09		ug/L		107	70 - 130
Chlorpyrifos	1.95	1.99		ug/L		102	70 - 130
Chrysene	1.95	1.82		ug/L		93	70 - 130
delta-BHC	1.95	1.88		ug/L		96	70 - 130
Di(2-ethylhexyl)adipate	1.95	2.04		ug/L		105	70 - 130
Dibenz(a,h)anthracene	1.95	1.71		ug/L		88	70 - 130
Diclorvos (DDVP)	1.95	2.05		ug/L		105	70 - 130
Dieldrin	1.95	1.83		ug/L		94	70 - 130
Diethylphthalate	1.95	2.10		ug/L		108	70 - 130
Dimethylphthalate	1.95	2.06		ug/L		106	70 - 130
Di-n-butyl phthalate	3.90	3.94		ug/L		101	70 - 130
Di-n-octyl phthalate	1.95	1.86		ug/L		95	70 - 130
Endosulfan I (Alpha)	1.95	1.81		ug/L		93	70 - 130
Endosulfan II (Beta)	1.95	1.84		ug/L		95	70 - 130
Endosulfan sulfate	1.95	1.85		ug/L		95	70 - 130
Endrin	1.95	1.75		ug/L		90	70 - 130
Endrin aldehyde	1.95	1.84		ug/L		94	60 - 130
EPTC	1.95	1.99		ug/L		102	70 - 130
Fluoranthene	1.95	1.93		ug/L		99	70 - 130
Fluorene	1.95	2.01		ug/L		103	70 - 130
gamma-Chlordane	1.95	1.95		ug/L		100	70 - 130
Heptachlor	1.95	1.88		ug/L		97	70 - 130
Heptachlor epoxide (isomer B)	1.95	1.90		ug/L		97	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: LCS 380-127720/23-A
Matrix: Water
Analysis Batch: 128026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127720

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobenzene	1.95	1.80		ug/L		92	70 - 130
Hexachlorocyclopentadiene	1.95	1.77		ug/L		91	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	1.90		ug/L		97	70 - 130
Isophorone	1.95	1.85		ug/L		95	70 - 130
Lindane	1.95	1.78		ug/L		91	70 - 130
Malathion	1.95	2.01		ug/L		103	70 - 130
Methoxychlor	1.95	1.76		ug/L		90	70 - 130
Metolachlor	1.95	1.98		ug/L		102	70 - 130
Molinate	1.95	2.02		ug/L		104	70 - 130
Naphthalene	1.95	1.87		ug/L		96	70 - 130
Parathion	1.95	1.91		ug/L		98	70 - 130
Pendimethalin (Penoxaline)	1.95	1.72		ug/L		88	70 - 130
Phenanthrene	1.95	1.78		ug/L		91	70 - 130
Propachlor	1.95	2.19		ug/L		113	70 - 130
Pyrene	1.95	1.93		ug/L		99	70 - 130
Simazine	1.95	2.10		ug/L		108	70 - 130
Terbacil	1.95	2.07		ug/L		106	70 - 130
Terbutylazine	1.95	2.13		ug/L		109	70 - 130
Thiobencarb	1.95	2.08		ug/L		107	70 - 130
trans-Nonachlor	1.95	1.91		ug/L		98	70 - 130
Trifluralin	1.95	1.81		ug/L		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	104		70 - 130

Lab Sample ID: MRL 380-127720/22-A
Matrix: Water
Analysis Batch: 128026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127720

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0972	0.118		ug/L		121	50 - 150
2,4'-DDD	0.0972	0.0954	J	ug/L		98	50 - 150
2,4'-DDE	0.0972	0.106		ug/L		109	50 - 150
2,4'-DDT	0.0972	0.104		ug/L		107	50 - 150
2,4-Dinitrotoluene	0.0972	0.104		ug/L		107	50 - 150
2,6-Dinitrotoluene	0.0972	0.101		ug/L		104	50 - 150
2-Methylnaphthalene	0.0972	0.113		ug/L		116	50 - 150
4,4'-DDD	0.0972	0.109		ug/L		112	50 - 150
4,4'-DDE	0.0972	0.106		ug/L		109	50 - 150
4,4'-DDT	0.0972	0.100		ug/L		103	50 - 150
Acenaphthene	0.0972	0.101		ug/L		104	50 - 150
Acenaphthylene	0.0972	0.0967	J	ug/L		99	50 - 150
Acetochlor	0.0972	0.108		ug/L		111	50 - 150
Alachlor	0.0486	0.0564		ug/L		116	50 - 150
alpha-BHC	0.0972	0.109		ug/L		112	50 - 150
alpha-Chlordane	0.0243	0.0282	J	ug/L		116	50 - 150

QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: MRL 380-127720/22-A
Matrix: Water
Analysis Batch: 128026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127720

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Anthracene	0.0194	0.0211		ug/L		108	50 - 150
Atrazine	0.0486	0.0535		ug/L		110	50 - 150
Benz(a)anthracene	0.0486	0.0529		ug/L		109	50 - 150
Benzo[a]pyrene	0.0194	0.0227		ug/L		117	50 - 150
Benzo[b]fluoranthene	0.0194	0.0210		ug/L		108	50 - 150
Benzo[g,h,i]perylene	0.0486	0.0423	J	ug/L		87	50 - 150
Benzo[k]fluoranthene	0.0194	0.0198		ug/L		102	50 - 150
beta-BHC	0.0972	0.113		ug/L		116	50 - 150
Bis(2-ethylhexyl) phthalate	0.583	0.641		ug/L		110	50 - 150
Bromacil	0.0972	0.112		ug/L		115	50 - 150
Butachlor	0.0486	0.0611		ug/L		126	50 - 150
Butylbenzylphthalate	0.486	0.605		ug/L		125	50 - 150
Chlorobenzilate	0.0972	0.109		ug/L		113	50 - 150
Chloroneb	0.0972	0.0811	J	ug/L		83	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0972	0.0922	J	ug/L		95	50 - 150
Chlorpyrifos	0.0486	0.0520		ug/L		107	50 - 150
Chrysene	0.0194	0.0228		ug/L		117	50 - 150
delta-BHC	0.0972	0.106		ug/L		109	50 - 150
Di(2-ethylhexyl)adipate	0.583	0.660		ug/L		113	50 - 150
Dibenz(a,h)anthracene	0.0486	0.0519		ug/L		107	50 - 150
Diclorvos (DDVP)	0.0486	0.0591		ug/L		122	50 - 150
Dieldrin	0.00972	0.0105		ug/L		108	50 - 150
Diethylphthalate	0.486	0.551		ug/L		113	50 - 150
Dimethylphthalate	0.486	0.548		ug/L		113	50 - 150
Di-n-butyl phthalate	0.486	0.556	J	ug/L		114	49 - 243
Di-n-octyl phthalate	0.0972	0.106		ug/L		109	50 - 150
Endosulfan I (Alpha)	0.0972	0.0997		ug/L		103	50 - 150
Endosulfan II (Beta)	0.0972	0.112		ug/L		115	50 - 150
Endosulfan sulfate	0.0972	0.104		ug/L		107	50 - 150
Endrin	0.00972	0.00995		ug/L		102	50 - 150
Endrin aldehyde	0.0972	0.109		ug/L		112	50 - 150
EPTC	0.0972	0.112		ug/L		116	50 - 150
Fluoranthene	0.0972	0.101		ug/L		103	50 - 150
Fluorene	0.0486	0.0512		ug/L		105	50 - 150
gamma-Chlordane	0.0243	0.0270	J	ug/L		111	50 - 150
Heptachlor	0.00972	0.0146		ug/L		150	50 - 150
Heptachlor epoxide (isomer B)	0.00972	0.0118		ug/L		121	50 - 150
Hexachlorobenzene	0.0486	0.0466	J	ug/L		96	50 - 150
Hexachlorocyclopentadiene	0.0486	0.0425	J	ug/L		87	50 - 150
Indeno[1,2,3-cd]pyrene	0.0486	0.0430	J	ug/L		88	50 - 150
Isophorone	0.0972	0.117		ug/L		120	50 - 150
Lindane	0.00972	0.0144		ug/L		149	50 - 150
Malathion	0.0972	0.111		ug/L		115	50 - 150
Methoxychlor	0.0486	0.0561		ug/L		115	50 - 150
Metolachlor	0.0486	0.0582		ug/L		120	50 - 150
Molinate	0.0972	0.108		ug/L		112	50 - 150
Naphthalene	0.0972	0.119		ug/L		122	50 - 150
Parathion	0.0972	0.0806	J	ug/L		83	50 - 150
Pendimethalin (Penoxaline)	0.0972	0.0889	J	ug/L		91	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: MRL 380-127720/22-A
Matrix: Water
Analysis Batch: 128026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127720

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Phenanthrene	0.0389	0.0446		ug/L		115	50 - 150
Propachlor	0.0486	0.0573		ug/L		118	50 - 150
Pyrene	0.0486	0.0498		ug/L		102	50 - 150
Simazine	0.0486	0.0483	J	ug/L		99	50 - 150
Terbacil	0.0972	0.106		ug/L		109	50 - 150
Terbutylazine	0.0972	0.101		ug/L		104	50 - 150
Thiobencarb	0.0972	0.104		ug/L		107	50 - 150
trans-Nonachlor	0.0243	0.0276	J	ug/L		114	50 - 150
Trifluralin	0.0972	0.0916	J	ug/L		94	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	95		70 - 130
Perylene-d12	92		70 - 130
Triphenylphosphate	100		70 - 130

Lab Sample ID: 380-129325-1 MS
Matrix: Water
Analysis Batch: 128026

Client Sample ID: HALAWA SHAFT VIEWING POOL
Prep Type: Total/NA
Prep Batch: 127720

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.10		1.92	2.01		ug/L		104	70 - 130
2,4'-DDD	<0.10		1.92	1.87		ug/L		97	70 - 130
2,4'-DDE	<0.10		1.92	1.78		ug/L		93	70 - 130
2,4'-DDT	<0.10		1.92	1.80		ug/L		94	70 - 130
2,4-Dinitrotoluene	<0.10		1.92	1.71		ug/L		89	70 - 130
2,6-Dinitrotoluene	<0.10		1.92	1.79		ug/L		93	70 - 130
2-Methylnaphthalene	<0.10		1.92	1.98		ug/L		103	70 - 130
4,4'-DDD	<0.10		1.92	1.87		ug/L		97	70 - 130
4,4'-DDE	<0.10		1.92	1.79		ug/L		93	70 - 130
4,4'-DDT	<0.10		1.92	1.80		ug/L		94	70 - 130
Acenaphthene	<0.10		1.92	1.83		ug/L		95	70 - 130
Acenaphthylene	<0.10		1.92	1.95		ug/L		101	70 - 130
Acetochlor	<0.10		1.92	1.99		ug/L		103	70 - 130
Alachlor	<0.050		1.92	2.00		ug/L		104	70 - 130
alpha-BHC	<0.10		1.92	1.81		ug/L		94	70 - 130
alpha-Chlordane	<0.050		1.92	1.97		ug/L		102	70 - 130
Anthracene	<0.020	F1	1.92	0.781	F1	ug/L		41	70 - 130
Atrazine	<0.050		1.92	2.00		ug/L		104	70 - 130
Benz(a)anthracene	<0.050		1.92	1.55		ug/L		81	70 - 130
Benzo[a]pyrene	<0.020		1.92	1.49		ug/L		77	70 - 130
Benzo[b]fluoranthene	<0.020		1.92	2.04		ug/L		106	70 - 130
Benzo[g,h,i]perylene	<0.050		1.92	1.88		ug/L		97	70 - 130
Benzo[k]fluoranthene	<0.020		1.92	1.94		ug/L		101	70 - 130
beta-BHC	<0.10		1.92	1.83		ug/L		95	70 - 130
Bis(2-ethylhexyl) phthalate	<0.60		1.92	1.96		ug/L		102	70 - 130
Bromacil	<0.10		1.92	1.92		ug/L		100	70 - 130
Butachlor	<0.050		1.92	2.11		ug/L		110	70 - 130
Butylbenzylphthalate	<0.50		1.92	2.20		ug/L		114	70 - 130

QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: 380-129325-1 MS

Matrix: Water

Analysis Batch: 128026

Client Sample ID: HALAWA SHAFT VIEWING POOL

Prep Type: Total/NA

Prep Batch: 127720

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Chlorobenzilate	<0.10		1.92	1.74		ug/L		90	70 - 130
Chloroneb	<0.10		1.92	1.95		ug/L		101	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.10		1.92	2.11		ug/L		110	70 - 130
Chlorpyrifos	<0.050		1.92	1.97		ug/L		102	70 - 130
Chrysene	<0.020		1.92	1.76		ug/L		91	70 - 130
delta-BHC	<0.10		1.92	1.82		ug/L		95	70 - 130
Di(2-ethylhexyl)adipate	<0.60		1.92	1.81		ug/L		94	70 - 130
Dibenz(a,h)anthracene	<0.050		1.92	1.71		ug/L		89	70 - 130
Diclorvos (DDVP)	<0.050		1.92	2.09		ug/L		109	70 - 130
Dieldrin	<0.010		1.92	1.86		ug/L		97	70 - 130
Diethylphthalate	<0.50		1.92	2.00		ug/L		104	70 - 130
Dimethylphthalate	<0.50		1.92	2.05		ug/L		107	70 - 130
Di-n-butyl phthalate	<1.0		3.85	3.93		ug/L		102	70 - 130
Di-n-octyl phthalate	<0.10		1.92	1.61		ug/L		83	70 - 130
Endosulfan I (Alpha)	<0.10		1.92	1.81		ug/L		94	70 - 130
Endosulfan II (Beta)	<0.10		1.92	1.88		ug/L		98	70 - 130
Endosulfan sulfate	<0.10		1.92	1.87		ug/L		97	70 - 130
Endrin	<0.010		1.92	1.80		ug/L		94	70 - 130
Endrin aldehyde	<0.10		1.92	1.57		ug/L		82	60 - 130
EPTC	<0.10		1.92	2.07		ug/L		108	70 - 130
Fluoranthene	<0.10		1.92	1.93		ug/L		100	70 - 130
Fluorene	<0.050		1.92	1.96		ug/L		102	70 - 130
gamma-Chlordane	<0.050		1.92	1.95		ug/L		101	70 - 130
Heptachlor	<0.010		1.92	1.89		ug/L		98	70 - 130
Heptachlor epoxide (isomer B)	<0.010		1.92	1.95		ug/L		101	70 - 130
Hexachlorobenzene	<0.050		1.92	1.74		ug/L		90	70 - 130
Hexachlorocyclopentadiene	<0.050		1.92	1.82		ug/L		94	70 - 130
Indeno[1,2,3-cd]pyrene	<0.050		1.92	1.94		ug/L		101	70 - 130
Isophorone	<0.10		1.92	1.89		ug/L		98	70 - 130
Lindane	<0.010		1.92	1.66		ug/L		87	70 - 130
Malathion	<0.10		1.92	2.01		ug/L		105	70 - 130
Methoxychlor	<0.050		1.92	1.93		ug/L		100	70 - 130
Metolachlor	<0.050		1.92	1.99		ug/L		104	70 - 130
Molinate	<0.10		1.92	2.00		ug/L		104	70 - 130
Naphthalene	<0.10		1.92	1.92		ug/L		100	70 - 130
Parathion	<0.10		1.92	1.92		ug/L		100	70 - 130
Pendimethalin (Penoxaline)	<0.10		1.92	1.80		ug/L		93	70 - 130
Phenanthrene	<0.040		1.92	1.78		ug/L		93	70 - 130
Propachlor	<0.050		1.92	2.01		ug/L		104	70 - 130
Pyrene	<0.050		1.92	1.89		ug/L		98	70 - 130
Simazine	<0.050		1.92	1.98		ug/L		103	70 - 130
Terbacil	<0.10		1.92	2.06		ug/L		107	70 - 130
Terbutylazine	<0.10		1.92	1.96		ug/L		102	70 - 130
Thiobencarb	<0.10		1.92	2.06		ug/L		107	70 - 130
trans-Nonachlor	<0.050		1.92	1.90		ug/L		99	70 - 130
Trifluralin	<0.10		1.92	1.69		ug/L		88	70 - 130

QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: 380-129325-1 MS
Matrix: Water
Analysis Batch: 128026

Client Sample ID: HALAWA SHAFT VIEWING POOL
Prep Type: Total/NA
Prep Batch: 127720

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	92		70 - 130
Triphenylphosphate	102		70 - 130

Lab Sample ID: 380-129616-N-1-A DU
Matrix: Water
Analysis Batch: 128026

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 127720

Analyte	Sample Result	Sample Qualifier	DU		Unit	D	RPD	Limit
			Result	Qualifier				
1-Methylnaphthalene	<0.097		<0.098		ug/L		NC	20
2,4'-DDD	<0.097		<0.098		ug/L		NC	20
2,4'-DDE	<0.097		<0.098		ug/L		NC	20
2,4'-DDT	<0.097		<0.098		ug/L		NC	20
2,4-Dinitrotoluene	<0.097		<0.098		ug/L		NC	20
2,6-Dinitrotoluene	<0.097		<0.098		ug/L		NC	20
2-Methylnaphthalene	<0.097		<0.098		ug/L		NC	20
4,4'-DDD	<0.097		<0.098		ug/L		NC	20
4,4'-DDE	<0.097		<0.098		ug/L		NC	20
4,4'-DDT	<0.097		<0.098		ug/L		NC	20
Acenaphthene	<0.097		<0.098		ug/L		NC	20
Acenaphthylene	<0.097		<0.098		ug/L		NC	20
Acetochlor	<0.097		<0.098		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.097		<0.098		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.019		<0.020		ug/L		NC	20
Atrazine	<0.049		<0.049		ug/L		NC	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.020		ug/L		NC	20
beta-BHC	<0.097		<0.098		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.59		ug/L		NC	20
Bromacil	<0.097		<0.098		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		ug/L		NC	20
Chlorobenzilate	<0.097		<0.098		ug/L		NC	20
Chloroneb	<0.097		<0.098		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.098		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.019		<0.020		ug/L		NC	20
delta-BHC	<0.097		<0.098		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.59		ug/L		NC	20
Dibenz(a,h)anthracene	<0.049		<0.049		ug/L		NC	20
Diclorvos (DDVP)	<0.049		<0.049		ug/L		NC	20
Dieldrin	<0.0097		<0.0098		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20

QC Sample Results

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

Job ID: 380-129325-1
 SDG: Weekly

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

Lab Sample ID: 380-129616-N-1-A DU
Matrix: Water
Analysis Batch: 128026

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 127720

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Dimethylphthalate	<0.49		<0.49		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.98		ug/L		NC	20
Di-n-octyl phthalate	<0.097		<0.098		ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.098		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.098		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.098		ug/L		NC	20
Endrin	<0.0097		<0.0098		ug/L		NC	20
Endrin aldehyde	<0.097		<0.098		ug/L		NC	20
EPTC	<0.097		<0.098		ug/L		NC	20
Fluoranthene	<0.097		<0.098		ug/L		NC	20
Fluorene	<0.049		<0.049		ug/L		NC	20
gamma-Chlordane	<0.049		<0.049		ug/L		NC	20
Heptachlor	<0.0097		<0.0098		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0097		<0.0098		ug/L		NC	20
Hexachlorobenzene	<0.049		<0.049		ug/L		NC	20
Hexachlorocyclopentadiene	<0.049		<0.049		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.049		<0.049		ug/L		NC	20
Isophorone	<0.097		<0.098		ug/L		NC	20
Lindane	<0.0097		<0.0098		ug/L		NC	20
Malathion	<0.097		<0.098		ug/L		NC	20
Methoxychlor	<0.049		<0.049		ug/L		NC	20
Metolachlor	<0.049		<0.049		ug/L		NC	20
Molinate	<0.097		<0.098		ug/L		NC	20
Naphthalene	<0.097		<0.098		ug/L		NC	20
Parathion	<0.097		<0.098		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.098		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.049		<0.049		ug/L		NC	20
Pyrene	<0.049		<0.049		ug/L		NC	20
Simazine	<0.049		<0.049		ug/L		NC	20
Terbacil	<0.097		<0.098		ug/L		NC	20
Terbutylazine	<0.097		<0.098		ug/L		NC	20
Thiobencarb	<0.097		<0.098		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.20		ug/L		NC	20
trans-Nonachlor	<0.049		<0.049		ug/L		NC	20
Trifluralin	<0.097		<0.098		ug/L		NC	20

Surrogate	DU DU		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	102		70 - 130

QC Sample Results

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

Job ID: 380-129325-1
 SDG: Weekly

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

Lab Sample ID: MB 570-522668/1-A
Matrix: Water
Analysis Batch: 524823

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 522668

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>MB MB Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>			<i>N/A</i>	<i>01/14/25 05:49</i>	<i>01/21/25 08:14</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	62		33 - 139	<i>01/14/25 05:49</i>	<i>01/21/25 08:14</i>	1
<i>2-Fluorobiphenyl (Surr)</i>	46		33 - 126	<i>01/14/25 05:49</i>	<i>01/21/25 08:14</i>	1
<i>2-Fluorophenol (Surr)</i>	38		12 - 120	<i>01/14/25 05:49</i>	<i>01/21/25 08:14</i>	1
<i>Nitrobenzene-d5 (Surr)</i>	55		36 - 120	<i>01/14/25 05:49</i>	<i>01/21/25 08:14</i>	1
<i>Phenol-d6 (Surr)</i>	25		10 - 120	<i>01/14/25 05:49</i>	<i>01/21/25 08:14</i>	1
<i>p-Terphenyl-d14 (Surr)</i>	68		47 - 131	<i>01/14/25 05:49</i>	<i>01/21/25 08:14</i>	1

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

Lab Sample ID: MB 570-522668/1-A
Matrix: Water
Analysis Batch: 523898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 522668

<i>Analyte</i>	<i>Result</i>	<i>MB MB Qualifier</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1-Methylnaphthalene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
2-Methylnaphthalene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Acenaphthene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Acenaphthylene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Anthracene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Benzo[a]anthracene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Benzo[a]pyrene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Chrysene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Fluoranthene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Fluorene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Naphthalene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Phenanthrene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1
Pyrene	<0.20		0.20	ug/L		01/14/25 05:49	01/17/25 14:42	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>2,4,6-Tribromophenol (Surr)</i>	58		28 - 127	<i>01/14/25 05:49</i>	<i>01/17/25 14:42</i>	1
<i>2-Fluorobiphenyl (Surr)</i>	46		31 - 120	<i>01/14/25 05:49</i>	<i>01/17/25 14:42</i>	1
<i>2-Fluorophenol (Surr)</i>	32		17 - 120	<i>01/14/25 05:49</i>	<i>01/17/25 14:42</i>	1
<i>Nitrobenzene-d5 (Surr)</i>	46		27 - 120	<i>01/14/25 05:49</i>	<i>01/17/25 14:42</i>	1
<i>Phenol-d6 (Surr)</i>	21		10 - 120	<i>01/14/25 05:49</i>	<i>01/17/25 14:42</i>	1
<i>p-Terphenyl-d14 (Surr)</i>	59		45 - 120	<i>01/14/25 05:49</i>	<i>01/17/25 14:42</i>	1

QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: LCS 570-522668/2-A
Matrix: Water
Analysis Batch: 523898

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 522668

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	14.5		ug/L		72	47 - 120
2-Methylnaphthalene	20.0	16.3		ug/L		81	43 - 120
Acenaphthene	20.0	16.9		ug/L		85	60 - 132
Acenaphthylene	20.0	14.7		ug/L		74	54 - 126
Anthracene	20.0	17.2		ug/L		86	43 - 120
Benzo[a]anthracene	20.0	17.3		ug/L		87	42 - 133
Benzo[a]pyrene	20.0	19.5		ug/L		98	32 - 148
Benzo[b]fluoranthene	20.0	18.8		ug/L		94	42 - 140
Benzo[g,h,i]perylene	20.0	17.2		ug/L		86	1 - 195
Benzo[k]fluoranthene	20.0	18.6		ug/L		93	25 - 146
Chrysene	20.0	16.8		ug/L		84	44 - 140
Dibenz(a,h)anthracene	20.0	18.1		ug/L		91	1 - 200
Fluoranthene	20.0	18.7		ug/L		94	43 - 121
Fluorene	20.0	17.6		ug/L		88	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	18.4		ug/L		92	1 - 151
Naphthalene	20.0	14.1		ug/L		71	36 - 120
Phenanthrene	20.0	17.1		ug/L		85	65 - 120
Pyrene	20.0	16.5		ug/L		82	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	72		28 - 127
2-Fluorobiphenyl (Surr)	70		31 - 120
2-Fluorophenol (Surr)	47		17 - 120
Nitrobenzene-d5 (Surr)	58		27 - 120
Phenol-d6 (Surr)	33		10 - 120
p-Terphenyl-d14 (Surr)	69		45 - 120

Lab Sample ID: LCSD 570-522668/3-A
Matrix: Water
Analysis Batch: 523898

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 522668

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	14.4		ug/L		72	47 - 120	0	20
2-Methylnaphthalene	20.0	16.1		ug/L		81	43 - 120	1	20
Acenaphthene	20.0	16.7		ug/L		83	60 - 132	2	29
Acenaphthylene	20.0	14.9		ug/L		74	54 - 126	1	45
Anthracene	20.0	17.4		ug/L		87	43 - 120	1	40
Benzo[a]anthracene	20.0	17.6		ug/L		88	42 - 133	1	32
Benzo[a]pyrene	20.0	19.9		ug/L		100	32 - 148	2	43
Benzo[b]fluoranthene	20.0	19.5		ug/L		98	42 - 140	4	43
Benzo[g,h,i]perylene	20.0	17.7		ug/L		89	1 - 195	3	61
Benzo[k]fluoranthene	20.0	18.9		ug/L		94	25 - 146	1	38
Chrysene	20.0	17.2		ug/L		86	44 - 140	2	53
Dibenz(a,h)anthracene	20.0	18.9		ug/L		95	1 - 200	4	75
Fluoranthene	20.0	19.5		ug/L		97	43 - 121	4	40
Fluorene	20.0	17.6		ug/L		88	70 - 120	0	23
Indeno[1,2,3-cd]pyrene	20.0	19.1		ug/L		95	1 - 151	4	60
Naphthalene	20.0	13.4		ug/L		67	36 - 120	5	39

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: LCSD 570-522668/3-A
Matrix: Water
Analysis Batch: 523898

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 522668

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	17.2		ug/L		86	65 - 120	1	24
Pyrene	20.0	16.4		ug/L		82	70 - 120	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	65		28 - 127
2-Fluorobiphenyl (Surr)	61		31 - 120
2-Fluorophenol (Surr)	44		17 - 120
Nitrobenzene-d5 (Surr)	52		27 - 120
Phenol-d6 (Surr)	31		10 - 120
p-Terphenyl-d14 (Surr)	65		45 - 120

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

Lab Sample ID: MB 570-523626/7
Matrix: Water
Analysis Batch: 523626

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			01/16/25 13:57	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		38 - 134		01/16/25 13:57	1

Lab Sample ID: LCS 570-523626/5
Matrix: Water
Analysis Batch: 523626

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	450		ug/L		113	78 - 120

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
4-Bromofluorobenzene (Surr)	105		38 - 134

Lab Sample ID: LCSD 570-523626/6
Matrix: Water
Analysis Batch: 523626

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	439		ug/L		110	78 - 120	3	10

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	103		38 - 134

QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: MRL 570-523626/4
Matrix: Water
Analysis Batch: 523626

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	13.2		ug/L		132	50 - 150
Surrogate	%Recovery	MRL Qualifier	Limits				
4-Bromofluorobenzene (Surr)	100		38 - 134				

Lab Sample ID: 380-129325-1 MS
Matrix: Water
Analysis Batch: 523626

Client Sample ID: HALAWA SHAFT VIEWING POOL
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	445		ug/L		111	68 - 122
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	102		38 - 134						

Lab Sample ID: 380-129325-1 MSD
Matrix: Water
Analysis Batch: 523626

Client Sample ID: HALAWA SHAFT VIEWING POOL
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	464		ug/L		116	68 - 122	4	18
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	100		38 - 134								

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

Lab Sample ID: MB 570-522975/1-A
Matrix: Water
Analysis Batch: 525018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 522975

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		01/14/25 16:55	01/21/25 18:43	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		01/14/25 16:55	01/21/25 18:43	1
C8-C18	<25		25	ug/L		01/14/25 16:55	01/21/25 18:43	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	123		60 - 130			01/14/25 16:55	01/21/25 18:43	1

Lab Sample ID: LCS 570-522975/2-A
Matrix: Water
Analysis Batch: 525018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 522975

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1440		ug/L		90	56 - 127

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-129325-1
SDG: Weekly

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

Lab Sample ID: LCS 570-522975/2-A
Matrix: Water
Analysis Batch: 525018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 522975

	<i>LCS</i>	<i>LCS</i>	<i>Limits</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>n-Octacosane (Surr)</i>	117		60 - 130

Lab Sample ID: LCSD 570-522975/3-A
Matrix: Water
Analysis Batch: 525018

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 522975

	<i>Spike</i>	<i>LCSD</i>	<i>LCSD</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>Limits</i>	<i>RPD</i>	<i>Limit</i>
<i>Analyte</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>	<i>RPD</i>	<i>Limit</i>	
C10-C28	1600	1560		ug/L		97	56 - 127	8	23	

	<i>LCSD</i>	<i>LCSD</i>	<i>Limits</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>n-Octacosane (Surr)</i>	125		60 - 130

Lab Sample ID: MRL 570-522975/4-A
Matrix: Water
Analysis Batch: 525018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 522975

	<i>Spike</i>	<i>MRL</i>	<i>MRL</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>Limits</i>
<i>Analyte</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>	
C10-C28	0.0200	0.0306	^3+	mg/L		153	50 - 150	

	<i>MRL</i>	<i>MRL</i>	<i>Limits</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>n-Octacosane (Surr)</i>	133		60 - 130

QC Association Summary

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

Job ID: 380-129325-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 127720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-129325-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
MB 380-127720/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-127720/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-127720/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-129325-1 MS	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	
380-129616-N-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 128026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-129325-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	127720
MB 380-127720/21-A	Method Blank	Total/NA	Water	525.2	127720
LCS 380-127720/23-A	Lab Control Sample	Total/NA	Water	525.2	127720
MRL 380-127720/22-A	Lab Control Sample	Total/NA	Water	525.2	127720
380-129325-1 MS	HALAWA SHAFT VIEWING POOL	Total/NA	Water	525.2	127720
380-129616-N-1-A DU	Duplicate	Total/NA	Water	525.2	127720

Prep Batch: 522668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-129325-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	
MB 570-522668/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-522668/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-522668/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 523898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-129325-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1 SIM	522668
MB 570-522668/1-A	Method Blank	Total/NA	Water	625.1 SIM	522668
LCS 570-522668/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	522668
LCSD 570-522668/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	522668

Analysis Batch: 524823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-129325-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	625.1	522668
MB 570-522668/1-A	Method Blank	Total/NA	Water	625.1	522668

GC VOA

Analysis Batch: 523626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-129325-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
380-129325-2	TRIP BLANK	Total/NA	Water	8015B GRO LL	
MB 570-523626/7	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-523626/5	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-523626/6	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-523626/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-129325-1 MS	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	
380-129325-1 MSD	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B GRO LL	

QC Association Summary

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

Job ID: 380-129325-1
 SDG: Weekly

GC Semi VOA

Prep Batch: 522975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-129325-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	3510C	
MB 570-522975/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-522975/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-522975/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-522975/4-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 525018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-129325-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015B	522975
MB 570-522975/1-A	Method Blank	Total/NA	Water	8015B	522975
LCS 570-522975/2-A	Lab Control Sample	Total/NA	Water	8015B	522975
LCSD 570-522975/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	522975
MRL 570-522975/4-A	Lab Control Sample	Total/NA	Water	8015B	522975

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Lab Chronicle

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

Job ID: 380-129325-1
SDG: Weekly

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-129325-1

Date Collected: 01/07/25 10:00

Matrix: Water

Date Received: 01/09/25 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			127720	KRD3	EA POM	01/14/25 08:40
Total/NA	Analysis	525.2		1	128026	Q8LA	EA POM	01/15/25 13:00
Total/NA	Prep	625.1			522668	H1SH	EET CAL 4	01/14/25 05:49
Total/NA	Analysis	625.1		1	524823	PQS1	EET CAL 4	01/21/25 09:00
Total/NA	Prep	625.1			522668	H1SH	EET CAL 4	01/14/25 05:49
Total/NA	Analysis	625.1 SIM		1	523898	PQS1	EET CAL 4	01/17/25 16:54
Total/NA	Analysis	8015B GRO LL		1	523626	A9VE	EET CAL 4	01/16/25 15:05
Total/NA	Prep	3510C			522975	TVD6	EET CAL 4	01/14/25 16:55
Total/NA	Analysis	8015B		1	525018	E5RH	EET CAL 4	01/21/25 19:46

Client Sample ID: TRIP BLANK

Lab Sample ID: 380-129325-2

Date Collected: 01/07/25 10:00

Matrix: Water

Date Received: 01/09/25 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	523626	A9VE	EET CAL 4	01/16/25 14:40

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: 380-129325-1
 SDG: Weekly

Laboratory: Eurofins Eaton Analytical Pomona

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

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

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

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

Laboratory: Eurofins Calscience

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

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

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-129325-1
SDG: Weekly

Laboratory: Eurofins Calscience (Continued)

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

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

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Method Summary

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

Job ID: 380-129325-1
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: 380-129325-1
SDG: Weekly

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
380-129325-1	HALAWA SHAFT VIEWING POOL	Water	01/07/25 10:00	01/09/25 09:57
380-129325-2	TRIP BLANK	Water	01/07/25 10:00	01/09/25 09:57

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Chain of Custody Record

Client Information		Lab PM: Arada, Rachelle		Carrier Tracking No(s): 380-28005-2757 1	
Client Contact: Ryan Greer		E-Mail: Rachelle.Arada@et.eurofins.com		Page: 1 of 1	
Company: Dr Ron Fenstermacher		PWSID:		Job #: 380-129325 C.O.C.	
City & County of Honolulu		Address: 630 South Beretania Street Chemistry Lab Honolulu HI, 96843		State of Origin: HI	
Due Date Requested: TAT Requested (days):		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Preservation Codes: R - NaTHiSO4 RA - NaTHiO/HCl Q - Na2SO3 QA - Na2SO3/HCl Y - Trizma I - NH4 Acetate	
PO #: C20525101 exp 05312023		Project #: 38001111		Other:	
MO #: RUFENSTEMACHER@hbws.org		Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill		Special Instructions/Note:	
Site: Hawaii		SSON#:		Total Number of Containers:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Preservation Code	Matrix (W=water, S=solid, O=soil, T=tissue, A=air)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Analysis Requested		Special Instructions/Note		
						R	RA	Q	QA	Y	I		537.1_DW_PREC - 537.1 Full List	533 - All Analytes
Halawa Shaft Viewing Pool	1/7/25	1000	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	3	2	2	
TRIP BLANK	1/7/25	1000	G		Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2				

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested I, II, III, IV, Other (specify)

Empty Kit Relinquished by: [Redacted] Date: 1/8/25 1300
 Relinquished by: [Redacted] Company: HBWS
 Relinquished by: [Redacted] Company: [Redacted]
 Relinquished by: [Redacted] Company: [Redacted]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements

Method of Shipment: Fedex 771295683434
 Date/Time: 1/9/25 957 Company: FEAR
 Date/Time: [Redacted] Company: [Redacted]
 Date/Time: [Redacted] Company: [Redacted]

Cooler Temperature(s) °C and Other Remarks:
 (031A) 4.8 to 3.5.1 Gel Thawed
 Ver 04/02/2024



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:	Arada, Rachelle	
Sampler: N/A		Carrier Tracking No(s):	N/A	
Phone: N/A		State of Origin:	Hawaii	
Shipping/Receiving		E-Mail:	Rachelle.Arada@et.eurofins.com	
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note):	State Hawaii	
Address: 2841 Dow Avenue, Suite 100,		Due Date Requested:	1/22/2025	
City: Tuustin		TAT Requested (days):	N/A	
State, Zip: CA, 92780		PO #:	N/A	
Phone: 714-895-5494(Tel)		WO #:	N/A	
Email: N/A		Project #:	38001111	
Project Name: RED-HILL		SSOW#:	N/A	
Site: Honolulu BWS Sites				

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Sealed, Opened)	Preservation Code: (BOTTLE ANAL)	Field Filtered Sample (Yes or No)	Performs MS/MSD (Yes or No)	8016B DRO LL CS/5510C LL HNL Ranges: C10-C24/C38/C8-C18	8016B_GRO_LL/5030C (MOD) GRO	826_1 SIM/025_Prep (MOD) Extended PAH List	Analysis Requested	Special Instructions/Note:
HALAWA SHAFT VIEWING POOL (380-129325-1)	1/17/25	10:00 Hawaiian	G	Water		X	X	X	X	X		MRLs are needed. Confirm any hits >RL.
TRIP BLANK (380-129325-2)	1/17/25	10:00 Hawaiian	G	Water				X				MRLs are needed.
<p>380-129325 Chain of Custody</p>												

Analysis Requested

Special Instructions/Note:

MRLs are needed. Confirm any hits >RL.

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/leak/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

Special Instructions/QC Requirements: Return To Client Disposal By Lab Archive For _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____

Relinquished by: *[Signature]* Date/Time: 1/10/25 12:50 Company: *[Signature]* Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Δ No No
 Cooler Temperature(s) °C and Other Remarks: 1.4 / 2.0 Seiz



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-129325-1

SDG Number: Weekly

Login Number: 129325

List Number: 1

Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

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



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-129325-1

SDG Number: Weekly

Login Number: 129325

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 01/10/25 02:31 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	