

ANALYTICAL REPORT

PREPARED FOR

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

Generated 1/17/2025 9:00:51 AM

JOB DESCRIPTION

RED-HILL
Weekly

JOB NUMBER

380-128393-1

Eurofins Eaton Analytical Pomona

Job Notes

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

Compliance Statement

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

Authorization



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



Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Action Limit Summary	11
Surrogate Summary	12
QC Sample Results	14
QC Association Summary	28
Lab Chronicle	30
Certification Summary	31
Method Summary	33
Sample Summary	34
Chain of Custody	35
Receipt Checklists	38

Definitions/Glossary

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

Job ID: 380-128393-1
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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

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

Job ID: 380-128393-1

Job ID: 380-128393-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-128393-1

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 1/3/2025 8:55 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 4.8°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 570-520236. 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 570-520236. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

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 570-521798. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

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

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Detection Summary

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

Job ID: 380-128393-1
SDG: Weekly

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-128393-1

No Detections.

Client Sample ID: TB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-128393-2

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: 380-128393-1
SDG: Weekly

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-128393-1

Date Collected: 01/02/25 10:00

Matrix: Water

Date Received: 01/03/25 08:55

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
2,4'-DDE	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
2,4'-DDT	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
2,4-Dinitrotoluene	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
2,6-Dinitrotoluene	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
4,4'-DDD	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
4,4'-DDE	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
4,4'-DDT	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Acenaphthene	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Acenaphthylene	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Acetochlor	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Alachlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
alpha-BHC	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
alpha-Chlordane	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Anthracene	<0.020		0.020	ug/L		01/06/25 06:47	01/06/25 15:27	1
Atrazine	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Benz(a)anthracene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Benzo[a]pyrene	<0.020		0.020	ug/L		01/06/25 06:47	01/06/25 15:27	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		01/06/25 06:47	01/06/25 15:27	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		01/06/25 06:47	01/06/25 15:27	1
beta-BHC	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		01/06/25 06:47	01/06/25 15:27	1
Aldrin	<0.010		0.010	ug/L		01/06/25 06:47	01/06/25 15:27	1
Bromacil	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Butachlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Butylbenzylphthalate	<0.50		0.50	ug/L		01/06/25 06:47	01/06/25 15:27	1
Chlorobenzilate	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Chloroneb	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Chlorothalonil (Draconil, Bravo)	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Chlorpyrifos	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Chrysene	<0.020		0.020	ug/L		01/06/25 06:47	01/06/25 15:27	1
delta-BHC	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		01/06/25 06:47	01/06/25 15:27	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Dieldrin	<0.010		0.010	ug/L		01/06/25 06:47	01/06/25 15:27	1
Diethylphthalate	<0.50		0.50	ug/L		01/06/25 06:47	01/06/25 15:27	1
Dimethylphthalate	<0.50		0.50	ug/L		01/06/25 06:47	01/06/25 15:27	1
Di-n-butyl phthalate	<1.0		1.0	ug/L		01/06/25 06:47	01/06/25 15:27	1
Di-n-octyl phthalate	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Endosulfan I (Alpha)	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Endosulfan II (Beta)	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Endosulfan sulfate	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Endrin	<0.010		0.010	ug/L		01/06/25 06:47	01/06/25 15:27	1
Endrin aldehyde	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
EPTC	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Fluoranthene	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Fluorene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-128393-1

Date Collected: 01/02/25 10:00

Matrix: Water

Date Received: 01/03/25 08:55

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	<0.010		0.010	ug/L		01/06/25 06:47	01/06/25 15:27	1
gamma-Chlordane	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Heptachlor	<0.010		0.010	ug/L		01/06/25 06:47	01/06/25 15:27	1
Heptachlor epoxide (isomer B)	<0.010		0.010	ug/L		01/06/25 06:47	01/06/25 15:27	1
Hexachlorobenzene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Isophorone	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Malathion	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Methoxychlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Metolachlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Molinate	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Naphthalene	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Parathion	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Pendimethalin (Penoxaline)	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Phenanthrene	<0.040		0.040	ug/L		01/06/25 06:47	01/06/25 15:27	1
Propachlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Pyrene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Simazine	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Terbacil	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Terbutylazine	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Thiobencarb	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		01/06/25 06:47	01/06/25 15:27	1
trans-Nonachlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 15:27	1
Trifluralin	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
1-Methylnaphthalene	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1
2-Methylnaphthalene	<0.10		0.10	ug/L		01/06/25 06:47	01/06/25 15:27	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	01/06/25 06:47	01/06/25 15:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	94		70 - 130	01/06/25 06:47	01/06/25 15:27	1
Perylene-d12	87		70 - 130	01/06/25 06:47	01/06/25 15:27	1
Triphenylphosphate	103		70 - 130	01/06/25 06:47	01/06/25 15:27	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		01/04/25 11:56	01/08/25 09:52	1
2-Methylnaphthalene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Acenaphthene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Acenaphthylene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Anthracene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Benzo[a]anthracene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Benzo[a]pyrene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Chrysene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-128393-1

Date Collected: 01/02/25 10:00

Matrix: Water

Date Received: 01/03/25 08:55

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Fluorene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Naphthalene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Phenanthrene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1
Pyrene	<0.19		0.19	ug/L		01/04/25 11:56	01/08/25 09:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	66		28 - 127	01/04/25 11:56	01/08/25 09:52	1
2-Fluorobiphenyl (Surr)	61		31 - 120	01/04/25 11:56	01/08/25 09:52	1
2-Fluorophenol (Surr)	34		17 - 120	01/04/25 11:56	01/08/25 09:52	1
Nitrobenzene-d5 (Surr)	59		27 - 120	01/04/25 11:56	01/08/25 09:52	1
Phenol-d6 (Surr)	23		10 - 120	01/04/25 11:56	01/08/25 09:52	1
p-Terphenyl-d14 (Surr)	74		45 - 120	01/04/25 11:56	01/08/25 09:52	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
Cyclononasiloxane, octadecamethyl-	5.5	T J N	ug/L		17.31	556-71-8	01/04/25 11:56	01/16/25 15:22	1
Cyclononasiloxane, octadecamethyl-	5.1	T J N	ug/L		18.29	556-71-8	01/04/25 11:56	01/16/25 15:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	71		33 - 139	01/04/25 11:56	01/16/25 15:22	1
2-Fluorobiphenyl (Surr)	64		33 - 126	01/04/25 11:56	01/16/25 15:22	1
2-Fluorophenol (Surr)	41		12 - 120	01/04/25 11:56	01/16/25 15:22	1
Nitrobenzene-d5 (Surr)	67		36 - 120	01/04/25 11:56	01/16/25 15:22	1
Phenol-d6 (Surr)	24		10 - 120	01/04/25 11:56	01/16/25 15:22	1
p-Terphenyl-d14 (Surr)	74		47 - 131	01/04/25 11:56	01/16/25 15:22	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			01/09/25 19:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		38 - 134		01/09/25 19:06	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		01/09/25 19:52	01/13/25 18:34	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		01/09/25 19:52	01/13/25 18:34	1
C8-C18	<25		25	ug/L		01/09/25 19:52	01/13/25 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	125		60 - 130	01/09/25 19:52	01/13/25 18:34	1

Client Sample ID: TB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-128393-2

Date Collected: 01/02/25 10:00

Matrix: Water

Date Received: 01/03/25 08:55

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			01/09/25 19:55	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

Client Sample ID: TB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-128393-2

Date Collected: 01/02/25 10:00

Matrix: Water

Date Received: 01/03/25 08:55

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
4-Bromofluorobenzene (Surr)	99		38 - 134		01/09/25 19:55	1

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

Action Limit Summary

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

Job ID: 380-128393-1
SDG: Weekly

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-128393-1

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	<0.050		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
gamma-BHC (Lindane)	<0.010		ug/L	0.2	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
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: 380-128393-1
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)
380-128194-AI-1-A MS	Matrix Spike	97	94	104
380-128247-AJ-1-A DU	Duplicate	96	89	103
380-128393-1	Halawa Shaft Viewing Pool	94	87	103
LCS 380-126456/20-A	Lab Control Sample	96	87	107
MB 380-126456/18-A	Method Blank	96	80	106
MRL 380-126456/19-A	Lab Control Sample	95	82	102

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)
380-128393-1	Halawa Shaft Viewing Pool	71	64	41	67	24	74
MB 570-520236/1-A	Method Blank	78	67	46	75	29	75

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)
380-128393-1	Halawa Shaft Viewing Pool	66	61	34	59	23	74
LCS 570-520236/2-A	Lab Control Sample	73	68	49	61	32	70
LCSD 570-520236/3-A	Lab Control Sample Dup	71	68	55	64	36	74
MB 570-520236/1-A	Method Blank	69	64	41	66	26	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)

Surrogate Summary

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

Job ID: 380-128393-1
 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)
380-128393-1	Halawa Shaft Viewing Pool	97
380-128393-2	TB: Halawa Shaft Viewing Pool	99
380-128745-C-1 MS	Matrix Spike	100
380-128745-C-1 MSD	Matrix Spike Duplicate	100
LCS 570-521596/3	Lab Control Sample	99
LCSD 570-521596/4	Lab Control Sample Dup	100
MB 570-521596/5	Method Blank	98
MRL 570-521596/16	Lab Control Sample	99

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)
380-128393-1	Halawa Shaft Viewing Pool	125
LCS 570-521798/2-A	Lab Control Sample	115
LCSD 570-521798/3-A	Lab Control Sample Dup	115
MB 570-521798/1-A	Method Blank	122
MRL 570-521798/6-A	Lab Control Sample	130

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: MB 380-126456/18-A
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126456

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
2,4'-DDE	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
2,4'-DDT	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
4,4'-DDD	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
4,4'-DDE	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
4,4'-DDT	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Acenaphthene	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Acenaphthylene	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Acetochlor	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Alachlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
alpha-BHC	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
alpha-Chlordane	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Anthracene	<0.020		0.020	ug/L		01/06/25 06:47	01/06/25 14:27	1
Atrazine	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Benz(a)anthracene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Benzo[a]pyrene	<0.020		0.020	ug/L		01/06/25 06:47	01/06/25 14:27	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		01/06/25 06:47	01/06/25 14:27	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		01/06/25 06:47	01/06/25 14:27	1
beta-BHC	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		01/06/25 06:47	01/06/25 14:27	1
Aldrin	<0.0099		0.0099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Bromacil	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Butachlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Butylbenzylphthalate	<0.50		0.50	ug/L		01/06/25 06:47	01/06/25 14:27	1
Chlorobenzilate	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Chloroneb	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Chlorpyrifos	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Chrysene	<0.020		0.020	ug/L		01/06/25 06:47	01/06/25 14:27	1
delta-BHC	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		01/06/25 06:47	01/06/25 14:27	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Dieldrin	<0.0099		0.0099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Diethylphthalate	<0.50		0.50	ug/L		01/06/25 06:47	01/06/25 14:27	1
Dimethylphthalate	<0.50		0.50	ug/L		01/06/25 06:47	01/06/25 14:27	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		01/06/25 06:47	01/06/25 14:27	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Endosulfan sulfate	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Endrin	<0.0099		0.0099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Endrin aldehyde	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
EPTC	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Fluoranthene	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: MB 380-126456/18-A
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126456

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
gamma-BHC (Lindane)	<0.0099		0.0099	ug/L		01/06/25 06:47	01/06/25 14:27	1
gamma-Chlordane	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Heptachlor	<0.0099		0.0099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Hexachlorobenzene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Isophorone	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Malathion	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Methoxychlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Metolachlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Molinate	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Naphthalene	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Parathion	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Phenanthrene	<0.040		0.040	ug/L		01/06/25 06:47	01/06/25 14:27	1
Propachlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Pyrene	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Simazine	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Terbacil	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Terbutylazine	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Thiobencarb	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		01/06/25 06:47	01/06/25 14:27	1
trans-Nonachlor	<0.050		0.050	ug/L		01/06/25 06:47	01/06/25 14:27	1
Trifluralin	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
1-Methylnaphthalene	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1
2-Methylnaphthalene	<0.099		0.099	ug/L		01/06/25 06:47	01/06/25 14:27	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Ethyl 3-acetoxybutyrate	0.658	T J N	ug/L		3.16	27846-49-7	01/06/25 06:47	01/06/25 14:27	1
Unknown	0.620	T J	ug/L		3.25	N/A	01/06/25 06:47	01/06/25 14:27	1
Hexadecanamide	0.566	T J N	ug/L		7.03	629-54-9	01/06/25 06:47	01/06/25 14:27	1
9-Octadecenamide, (Z)-	6.37	T J N	ug/L		7.90	301-02-0	01/06/25 06:47	01/06/25 14:27	1
13-Docosenamide, (Z)-	0.790	T J N	ug/L		10.43	112-84-5	01/06/25 06:47	01/06/25 14:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	01/06/25 06:47	01/06/25 14:27	1
Perylene-d12	80		70 - 130	01/06/25 06:47	01/06/25 14:27	1
Triphenylphosphate	106		70 - 130	01/06/25 06:47	01/06/25 14:27	1

Lab Sample ID: LCS 380-126456/20-A
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2,4'-DDD	1.98	2.04		ug/L		103	70 - 130
2,4'-DDE	1.98	1.99		ug/L		100	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: LCS 380-126456/20-A
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDT	1.98	1.91		ug/L		96	70 - 130
2,4-Dinitrotoluene	1.98	1.50		ug/L		76	70 - 130
2,6-Dinitrotoluene	1.98	1.65		ug/L		83	70 - 130
4,4'-DDD	1.98	2.06		ug/L		104	70 - 130
4,4'-DDE	1.98	2.01		ug/L		101	70 - 130
4,4'-DDT	1.98	1.95		ug/L		98	70 - 130
Acenaphthene	1.98	1.89		ug/L		95	70 - 130
Acenaphthylene	1.98	1.88		ug/L		95	70 - 130
Acetochlor	1.98	2.08		ug/L		105	70 - 130
Alachlor	1.98	2.15		ug/L		109	70 - 130
alpha-BHC	1.98	1.95		ug/L		98	70 - 130
alpha-Chlordane	1.98	2.06		ug/L		104	70 - 130
Anthracene	1.98	1.79		ug/L		90	70 - 130
Atrazine	1.98	2.24		ug/L		113	70 - 130
Benz(a)anthracene	1.98	1.82		ug/L		92	70 - 130
Benzo[a]pyrene	1.98	1.67		ug/L		84	70 - 130
Benzo[b]fluoranthene	1.98	2.05		ug/L		104	70 - 130
Benzo[g,h,i]perylene	1.98	2.02		ug/L		102	70 - 130
Benzo[k]fluoranthene	1.98	1.90		ug/L		96	70 - 130
beta-BHC	1.98	2.02		ug/L		102	70 - 130
Bis(2-ethylhexyl) phthalate	1.98	2.25		ug/L		114	70 - 130
Aldrin	1.98	1.92		ug/L		97	70 - 130
Bromacil	1.98	2.03		ug/L		102	70 - 130
Butachlor	1.98	2.27		ug/L		115	70 - 130
Butylbenzylphthalate	1.98	2.35		ug/L		119	70 - 130
Chlorobenzilate	1.98	1.90		ug/L		96	70 - 130
Chloroneb	1.98	2.09		ug/L		105	70 - 130
Chlorothalonil (Draconil, Bravo)	1.98	2.08		ug/L		105	70 - 130
Chlorpyrifos	1.98	2.13		ug/L		108	70 - 130
Chrysene	1.98	1.89		ug/L		95	70 - 130
delta-BHC	1.98	1.96		ug/L		99	70 - 130
Di(2-ethylhexyl)adipate	1.98	2.18		ug/L		110	70 - 130
Dibenz(a,h)anthracene	1.98	1.79		ug/L		90	70 - 130
Diclorvos (DDVP)	1.98	1.98		ug/L		100	70 - 130
Dieldrin	1.98	1.97		ug/L		99	70 - 130
Diethylphthalate	1.98	2.14		ug/L		108	70 - 130
Dimethylphthalate	1.98	2.08		ug/L		105	70 - 130
Di-n-butyl phthalate	3.96	4.23		ug/L		107	70 - 130
Di-n-octyl phthalate	1.98	1.91		ug/L		97	70 - 130
Endosulfan I (Alpha)	1.98	1.88		ug/L		95	70 - 130
Endosulfan II (Beta)	1.98	1.95		ug/L		98	70 - 130
Endosulfan sulfate	1.98	1.96		ug/L		99	70 - 130
Endrin	1.98	1.89		ug/L		95	70 - 130
Endrin aldehyde	1.98	1.99		ug/L		100	60 - 130
EPTC	1.98	2.03		ug/L		103	70 - 130
Fluoranthene	1.98	2.04		ug/L		103	70 - 130
Fluorene	1.98	2.01		ug/L		101	70 - 130
gamma-BHC (Lindane)	1.98	1.85		ug/L		93	70 - 130
gamma-Chlordane	1.98	2.00		ug/L		101	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: LCS 380-126456/20-A
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor	1.98	1.94		ug/L		98	70 - 130
Heptachlor epoxide (isomer B)	1.98	1.97		ug/L		100	70 - 130
Hexachlorobenzene	1.98	1.81		ug/L		91	70 - 130
Hexachlorocyclopentadiene	1.98	1.67		ug/L		84	70 - 130
Indeno[1,2,3-cd]pyrene	1.98	1.89		ug/L		95	70 - 130
Isophorone	1.98	1.97		ug/L		99	70 - 130
Malathion	1.98	2.14		ug/L		108	70 - 130
Methoxychlor	1.98	1.80		ug/L		91	70 - 130
Metolachlor	1.98	2.14		ug/L		108	70 - 130
Molinate	1.98	2.05		ug/L		104	70 - 130
Naphthalene	1.98	1.95		ug/L		98	70 - 130
Parathion	1.98	1.93		ug/L		97	70 - 130
Pendimethalin (Penoxaline)	1.98	1.68		ug/L		85	70 - 130
Phenanthrene	1.98	1.85		ug/L		93	70 - 130
Propachlor	1.98	2.13		ug/L		108	70 - 130
Pyrene	1.98	2.03		ug/L		102	70 - 130
Simazine	1.98	2.21		ug/L		112	70 - 130
Terbacil	1.98	2.16		ug/L		109	70 - 130
Terbutylazine	1.98	2.19		ug/L		111	70 - 130
Thiobencarb	1.98	2.18		ug/L		110	70 - 130
trans-Nonachlor	1.98	1.99		ug/L		100	70 - 130
Trifluralin	1.98	1.65		ug/L		83	70 - 130
1-Methylnaphthalene	1.98	1.92		ug/L		97	70 - 130
2-Methylnaphthalene	1.98	1.94		ug/L		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	87		70 - 130
Triphenylphosphate	107		70 - 130

Lab Sample ID: MRL 380-126456/19-A
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126456

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0989	0.0982	J	ug/L		99	50 - 150
2,4'-DDE	0.0989	0.104		ug/L		106	50 - 150
2,4'-DDT	0.0989	0.0912	J	ug/L		92	50 - 150
2,4-Dinitrotoluene	0.0989	0.0912	J	ug/L		92	50 - 150
2,6-Dinitrotoluene	0.0989	0.0936	J	ug/L		95	50 - 150
4,4'-DDD	0.0989	0.109		ug/L		111	50 - 150
4,4'-DDE	0.0989	0.0995		ug/L		101	50 - 150
4,4'-DDT	0.0989	0.0908	J	ug/L		92	50 - 150
Acenaphthene	0.0989	0.0999		ug/L		101	50 - 150
Acenaphthylene	0.0989	0.0936	J	ug/L		95	50 - 150
Acetochlor	0.0989	0.122		ug/L		123	50 - 150
Alachlor	0.0494	0.0524		ug/L		106	50 - 150
alpha-BHC	0.0989	0.106		ug/L		107	50 - 150

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: MRL 380-126456/19-A
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126456

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
alpha-Chlordane	0.0247	<0.029		ug/L		100	50 - 150
Anthracene	0.0198	0.0220		ug/L		111	50 - 150
Atrazine	0.0494	0.0559		ug/L		113	50 - 150
Benz(a)anthracene	0.0494	0.0519		ug/L		105	50 - 150
Benzo[a]pyrene	0.0198	0.0227		ug/L		115	50 - 150
Benzo[b]fluoranthene	0.0198	0.0197	J	ug/L		100	50 - 150
Benzo[g,h,i]perylene	0.0494	0.0430	J	ug/L		87	50 - 150
Benzo[k]fluoranthene	0.0198	0.0192	J	ug/L		97	50 - 150
beta-BHC	0.0989	0.117		ug/L		118	50 - 150
Bis(2-ethylhexyl) phthalate	0.593	0.639		ug/L		108	50 - 150
Aldrin	0.00989	0.0101		ug/L		102	50 - 150
Bromacil	0.0989	0.110		ug/L		111	50 - 150
Butachlor	0.0494	0.0566		ug/L		114	50 - 150
Butylbenzylphthalate	0.494	0.615		ug/L		124	50 - 150
Chlorobenzilate	0.0989	0.104		ug/L		105	50 - 150
Chloroneb	0.0989	0.103		ug/L		104	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0989	0.0853	J	ug/L		86	50 - 150
Chlorpyrifos	0.0494	0.0562		ug/L		114	50 - 150
Chrysene	0.0198	0.0217		ug/L		110	50 - 150
delta-BHC	0.0989	0.111		ug/L		112	50 - 150
Di(2-ethylhexyl)adipate	0.593	0.687		ug/L		116	50 - 150
Dibenz(a,h)anthracene	0.0494	0.0437	J	ug/L		88	50 - 150
Diclorvos (DDVP)	0.0494	0.0587		ug/L		119	50 - 150
Dieldrin	0.00989	0.00997		ug/L		101	50 - 150
Diethylphthalate	0.494	0.541		ug/L		109	50 - 150
Dimethylphthalate	0.494	0.541		ug/L		109	50 - 150
Di-n-butyl phthalate	0.494	0.577	J	ug/L		117	49 - 243
Di-n-octyl phthalate	0.0989	0.107		ug/L		108	50 - 150
Endosulfan I (Alpha)	0.0989	0.0889	J	ug/L		90	50 - 150
Endosulfan II (Beta)	0.0989	0.0942	J	ug/L		95	50 - 150
Endosulfan sulfate	0.0989	0.0932	J	ug/L		94	50 - 150
Endrin	0.00989	0.0137		ug/L		139	50 - 150
Endrin aldehyde	0.0989	0.105		ug/L		106	50 - 150
EPTC	0.0989	0.0918	J	ug/L		93	50 - 150
Fluoranthene	0.0989	0.101		ug/L		102	50 - 150
Fluorene	0.0494	0.0539		ug/L		109	50 - 150
gamma-BHC (Lindane)	0.00989	0.0119		ug/L		120	50 - 150
gamma-Chlordane	0.0247	0.0230	J	ug/L		93	50 - 150
Heptachlor	0.00989	0.0142		ug/L		144	50 - 150
Heptachlor epoxide (isomer B)	0.00989	0.0128		ug/L		130	50 - 150
Hexachlorobenzene	0.0494	0.0498		ug/L		101	50 - 150
Hexachlorocyclopentadiene	0.0494	<0.038		ug/L		75	50 - 150
Indeno[1,2,3-cd]pyrene	0.0494	0.0400	J	ug/L		81	50 - 150
Isophorone	0.0989	0.116		ug/L		117	50 - 150
Malathion	0.0989	0.106		ug/L		108	50 - 150
Methoxychlor	0.0494	0.0520		ug/L		105	50 - 150
Metolachlor	0.0494	0.0577		ug/L		117	50 - 150
Molinate	0.0989	0.108		ug/L		109	50 - 150
Naphthalene	0.0989	0.119		ug/L		121	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: MRL 380-126456/19-A
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126456

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Parathion	0.0989	0.0774	J	ug/L		78	50 - 150
Pendimethalin (Penoxaline)	0.0989	0.0788	J	ug/L		80	50 - 150
Phenanthrene	0.0395	0.0449		ug/L		114	50 - 150
Propachlor	0.0494	0.0536		ug/L		108	50 - 150
Pyrene	0.0494	0.0508		ug/L		103	50 - 150
Simazine	0.0494	0.0514		ug/L		104	50 - 150
Terbacil	0.0989	0.102		ug/L		103	50 - 150
Terbutylazine	0.0989	0.110		ug/L		111	50 - 150
Thiobencarb	0.0989	0.105		ug/L		107	50 - 150
trans-Nonachlor	0.0247	<0.026		ug/L		94	50 - 150
Trifluralin	0.0989	0.0812	J	ug/L		82	50 - 150
1-Methylnaphthalene	0.0989	0.112		ug/L		113	50 - 150
2-Methylnaphthalene	0.0989	0.108		ug/L		110	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
2-Nitro-m-xylene	95		70 - 130
Perylene-d12	82		70 - 130
Triphenylphosphate	102		70 - 130

Lab Sample ID: 380-128194-AI-1-A MS
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 126456

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	<0.096		1.92	1.87		ug/L		97	70 - 130
2,4'-DDE	<0.096		1.92	1.76		ug/L		91	70 - 130
2,4'-DDT	<0.096		1.92	1.72		ug/L		90	70 - 130
2,4-Dinitrotoluene	<0.096		1.92	1.71		ug/L		89	70 - 130
2,6-Dinitrotoluene	<0.096		1.92	1.72		ug/L		89	70 - 130
4,4'-DDD	<0.096		1.92	1.88		ug/L		97	70 - 130
4,4'-DDE	<0.096		1.92	1.73		ug/L		90	70 - 130
4,4'-DDT	<0.096		1.92	1.71		ug/L		89	70 - 130
Acenaphthene	<0.096		1.92	1.84		ug/L		96	70 - 130
Acenaphthylene	<0.096		1.92	1.93		ug/L		100	70 - 130
Acetochlor	<0.096		1.92	2.01		ug/L		104	70 - 130
Alachlor	<0.048		1.92	2.03		ug/L		106	70 - 130
alpha-BHC	<0.096		1.92	1.86		ug/L		97	70 - 130
alpha-Chlordane	<0.048		1.92	1.92		ug/L		100	70 - 130
Anthracene	<0.019	F1	1.92	1.01	F1	ug/L		52	70 - 130
Atrazine	<0.048		1.92	2.07		ug/L		108	70 - 130
Benz(a)anthracene	<0.048		1.92	1.60		ug/L		83	70 - 130
Benzo[a]pyrene	<0.019		1.92	1.39		ug/L		72	70 - 130
Benzo[b]fluoranthene	<0.019		1.92	1.80		ug/L		93	70 - 130
Benzo[g,h,i]perylene	<0.048		1.92	1.74		ug/L		90	70 - 130
Benzo[k]fluoranthene	<0.019		1.92	1.83		ug/L		95	70 - 130
beta-BHC	<0.096		1.92	1.91		ug/L		99	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.92	1.72		ug/L		89	70 - 130
Aldrin	<0.0096		1.92	1.78		ug/L		92	70 - 130

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: 380-128194-AI-1-A MS
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 126456

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Bromacil	<0.096		1.92	1.95		ug/L		101	70 - 130
Butachlor	<0.048		1.92	2.13		ug/L		111	70 - 130
Butylbenzylphthalate	<0.48		1.92	2.29		ug/L		119	70 - 130
Chlorobenzilate	<0.096		1.92	1.76		ug/L		91	70 - 130
Chloroneb	<0.096		1.92	2.03		ug/L		105	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.096		1.92	2.02		ug/L		105	70 - 130
Chlorpyrifos	<0.048		1.92	2.03		ug/L		105	70 - 130
Chrysene	<0.019		1.92	1.80		ug/L		93	70 - 130
delta-BHC	<0.096		1.92	1.88		ug/L		98	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.92	1.70		ug/L		88	70 - 130
Dibenz(a,h)anthracene	<0.048		1.92	1.56		ug/L		81	70 - 130
Diclorvos (DDVP)	<0.048		1.92	1.93		ug/L		100	70 - 130
Dieldrin	<0.0096		1.92	1.83		ug/L		95	70 - 130
Diethylphthalate	<0.48		1.92	2.03		ug/L		105	70 - 130
Dimethylphthalate	<0.48		1.92	2.00		ug/L		104	70 - 130
Di-n-butyl phthalate	<0.96		3.85	3.97		ug/L		103	70 - 130
Di-n-octyl phthalate	<0.096		1.92	1.36		ug/L		71	70 - 130
Endosulfan I (Alpha)	<0.096		1.92	1.81		ug/L		94	70 - 130
Endosulfan II (Beta)	<0.096		1.92	1.85		ug/L		96	70 - 130
Endosulfan sulfate	<0.096		1.92	1.87		ug/L		97	70 - 130
Endrin	<0.0096		1.92	1.82		ug/L		95	70 - 130
Endrin aldehyde	<0.096		1.92	1.60		ug/L		83	60 - 130
EPTC	<0.096		1.92	1.98		ug/L		103	70 - 130
Fluoranthene	<0.096		1.92	1.97		ug/L		102	70 - 130
Fluorene	<0.048		1.92	1.97		ug/L		102	70 - 130
gamma-BHC (Lindane)	<0.0096		1.92	1.71		ug/L		89	70 - 130
gamma-Chlordane	<0.048		1.92	1.87		ug/L		97	70 - 130
Heptachlor	<0.0096		1.92	1.88		ug/L		98	70 - 130
Heptachlor epoxide (isomer B)	<0.0096		1.92	1.89		ug/L		98	70 - 130
Hexachlorobenzene	<0.048		1.92	1.74		ug/L		91	70 - 130
Hexachlorocyclopentadiene	<0.048		1.92	1.74		ug/L		90	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.92	1.74		ug/L		91	70 - 130
Isophorone	<0.096		1.92	1.89		ug/L		98	70 - 130
Malathion	<0.096		1.92	2.07		ug/L		107	70 - 130
Methoxychlor	<0.048		1.92	1.88		ug/L		98	70 - 130
Metolachlor	<0.048		1.92	2.02		ug/L		105	70 - 130
Molinate	<0.096		1.92	2.03		ug/L		105	70 - 130
Naphthalene	<0.096		1.92	1.90		ug/L		98	70 - 130
Parathion	<0.096		1.92	1.97		ug/L		103	70 - 130
Pendimethalin (Penoxaline)	<0.096		1.92	1.82		ug/L		95	70 - 130
Phenanthrene	<0.038		1.92	1.81		ug/L		94	70 - 130
Propachlor	<0.048		1.92	2.03		ug/L		105	70 - 130
Pyrene	<0.048		1.92	1.95		ug/L		101	70 - 130
Simazine	<0.048		1.92	2.04		ug/L		106	70 - 130
Terbacil	<0.096		1.92	2.18		ug/L		113	70 - 130
Terbutylazine	<0.096		1.92	2.06		ug/L		107	70 - 130
Thiobencarb	<0.096		1.92	2.09		ug/L		109	70 - 130
trans-Nonachlor	<0.048		1.92	1.82		ug/L		95	70 - 130
Trifluralin	<0.096		1.92	1.69		ug/L		88	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: 380-128194-AI-1-A MS
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 126456

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
1-Methylnaphthalene	<0.096		1.92	1.89		ug/L		98	70 - 130
2-Methylnaphthalene	<0.096		1.92	1.91		ug/L		99	70 - 130
		MS		MS					
Surrogate	%Recovery	Qualifier	Limits						
2-Nitro-m-xylene	97		70 - 130						
Perylene-d12	94		70 - 130						
Triphenylphosphate	104		70 - 130						

Lab Sample ID: 380-128247-AJ-1-A DU
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 126456

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
2,4'-DDD	<0.096		<0.097		ug/L		NC	20
2,4'-DDE	<0.096		<0.097		ug/L		NC	20
2,4'-DDT	<0.096		<0.097		ug/L		NC	20
2,4-Dinitrotoluene	<0.096		<0.097		ug/L		NC	20
2,6-Dinitrotoluene	<0.096		<0.097		ug/L		NC	20
4,4'-DDD	<0.096		<0.097		ug/L		NC	20
4,4'-DDE	<0.096		<0.097		ug/L		NC	20
4,4'-DDT	<0.096		<0.097		ug/L		NC	20
Acenaphthene	<0.096		<0.097		ug/L		NC	20
Acenaphthylene	<0.096		<0.097		ug/L		NC	20
Acetochlor	<0.096		<0.097		ug/L		NC	20
Alachlor	<0.048		<0.048		ug/L		NC	20
alpha-BHC	<0.096		<0.097		ug/L		NC	20
alpha-Chlordane	<0.048		<0.048		ug/L		NC	20
Anthracene	<0.019		<0.019		ug/L		NC	20
Atrazine	<0.048		<0.048		ug/L		NC	20
Benz(a)anthracene	<0.048		<0.048		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.048		<0.048		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.019		ug/L		NC	20
beta-BHC	<0.096		<0.097		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Aldrin	<0.0096		<0.0097		ug/L		NC	20
Bromacil	<0.096		<0.097		ug/L		NC	20
Butachlor	<0.048		<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.48		ug/L		NC	20
Chlorobenzilate	<0.096		<0.097		ug/L		NC	20
Chloroneb	<0.096		<0.097		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.096		<0.097		ug/L		NC	20
Chlorpyrifos	<0.048		<0.048		ug/L		NC	20
Chrysene	<0.019		<0.019		ug/L		NC	20
delta-BHC	<0.096		<0.097		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.048		<0.048		ug/L		NC	20

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: 380-128247-AJ-1-A DU
Matrix: Water
Analysis Batch: 126489

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 126456

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Diclorvos (DDVP)	<0.048		<0.048		ug/L		NC	20
Dieldrin	<0.0096		<0.0097		ug/L		NC	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.96		<0.97		ug/L		NC	20
Di-n-octyl phthalate	<0.096		<0.097		ug/L		NC	20
Endosulfan I (Alpha)	<0.096		<0.097		ug/L		NC	20
Endosulfan II (Beta)	<0.096		<0.097		ug/L		NC	20
Endosulfan sulfate	<0.096		<0.097		ug/L		NC	20
Endrin	<0.0096		<0.0097		ug/L		NC	20
Endrin aldehyde	<0.096		<0.097		ug/L		NC	20
EPTC	<0.096		<0.097		ug/L		NC	20
Fluoranthene	<0.096		<0.097		ug/L		NC	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-BHC (Lindane)	<0.0096		<0.0097		ug/L		NC	20
gamma-Chlordane	<0.048		<0.048		ug/L		NC	20
Heptachlor	<0.0096		<0.0097		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0096		<0.0097		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.048		ug/L		NC	20
Hexachlorocyclopentadiene	<0.048		<0.048		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.048		ug/L		NC	20
Isophorone	<0.096		<0.097		ug/L		NC	20
Malathion	<0.096		<0.097		ug/L		NC	20
Methoxychlor	<0.048		<0.048		ug/L		NC	20
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.096		<0.097		ug/L		NC	20
Naphthalene	<0.096		<0.097		ug/L		NC	20
Parathion	<0.096		<0.097		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.096		<0.097		ug/L		NC	20
Phenanthrene	<0.039		<0.039		ug/L		NC	20
Propachlor	<0.048		<0.048		ug/L		NC	20
Pyrene	<0.048		<0.048		ug/L		NC	20
Simazine	<0.048		<0.048		ug/L		NC	20
Terbacil	<0.096		<0.097		ug/L		NC	20
Terbutylazine	<0.096		<0.097		ug/L		NC	20
Thiobencarb	<0.096		<0.097		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.19		ug/L		NC	20
trans-Nonachlor	<0.048		<0.048		ug/L		NC	20
Trifluralin	<0.096		<0.097		ug/L		NC	20
1-Methylnaphthalene	<0.096		<0.097		ug/L		NC	20
2-Methylnaphthalene	<0.096		<0.097		ug/L		NC	20

<i>Surrogate</i>	<i>DU %Recovery</i>	<i>DU Qualifier</i>	<i>Limits</i>
<i>2-Nitro-m-xylene</i>	96		70 - 130
<i>Perylene-d12</i>	89		70 - 130
<i>Triphenylphosphate</i>	103		70 - 130

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: MB 570-520236/1-A
Matrix: Water
Analysis Batch: 523483

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 520236

<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>01/04/25 11:56</i>	<i>01/16/25 14:58</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>	<i>78</i>		<i>33 - 139</i>	<i>01/04/25 11:56</i>	<i>01/16/25 14:58</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>67</i>		<i>33 - 126</i>	<i>01/04/25 11:56</i>	<i>01/16/25 14:58</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>46</i>		<i>12 - 120</i>	<i>01/04/25 11:56</i>	<i>01/16/25 14:58</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>75</i>		<i>36 - 120</i>	<i>01/04/25 11:56</i>	<i>01/16/25 14:58</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>29</i>		<i>10 - 120</i>	<i>01/04/25 11:56</i>	<i>01/16/25 14:58</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>75</i>		<i>47 - 131</i>	<i>01/04/25 11:56</i>	<i>01/16/25 14:58</i>	<i>1</i>

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

Lab Sample ID: MB 570-520236/1-A
Matrix: Water
Analysis Batch: 520804

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 520236

<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>
<i>1-Methylnaphthalene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>2-Methylnaphthalene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Acenaphthene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Acenaphthylene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Anthracene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Benzo[a]anthracene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Benzo[a]pyrene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Benzo[b]fluoranthene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Benzo[g,h,i]perylene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Benzo[k]fluoranthene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Chrysene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Dibenz(a,h)anthracene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Fluoranthene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Fluorene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Indeno[1,2,3-cd]pyrene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Naphthalene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Phenanthrene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Pyrene</i>	<i><0.20</i>		<i>0.20</i>	<i>ug/L</i>		<i>01/04/25 11:56</i>	<i>01/07/25 14:50</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>	<i>69</i>		<i>28 - 127</i>	<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>2-Fluorobiphenyl (Surr)</i>	<i>64</i>		<i>31 - 120</i>	<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>2-Fluorophenol (Surr)</i>	<i>41</i>		<i>17 - 120</i>	<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Nitrobenzene-d5 (Surr)</i>	<i>66</i>		<i>27 - 120</i>	<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>Phenol-d6 (Surr)</i>	<i>26</i>		<i>10 - 120</i>	<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>
<i>p-Terphenyl-d14 (Surr)</i>	<i>68</i>		<i>45 - 120</i>	<i>01/04/25 11:56</i>	<i>01/07/25 14:50</i>	<i>1</i>

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: LCS 570-520236/2-A
Matrix: Water
Analysis Batch: 520804

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 520236

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	16.4		ug/L		82	43 - 120
Acenaphthene	20.0	15.9		ug/L		80	60 - 132
Acenaphthylene	20.0	15.3		ug/L		77	54 - 126
Anthracene	20.0	16.0		ug/L		80	43 - 120
Benzo[a]anthracene	20.0	16.7		ug/L		84	42 - 133
Benzo[a]pyrene	20.0	17.6		ug/L		88	32 - 148
Benzo[b]fluoranthene	20.0	17.3		ug/L		86	42 - 140
Benzo[g,h,i]perylene	20.0	15.7		ug/L		78	1 - 195
Benzo[k]fluoranthene	20.0	16.7		ug/L		83	25 - 146
Chrysene	20.0	16.0		ug/L		80	44 - 140
Dibenz(a,h)anthracene	20.0	16.5		ug/L		83	1 - 200
Fluoranthene	20.0	16.5		ug/L		82	43 - 121
Fluorene	20.0	15.9		ug/L		79	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	16.7		ug/L		84	1 - 151
Naphthalene	20.0	13.9		ug/L		70	36 - 120
Phenanthrene	20.0	15.8		ug/L		79	65 - 120
Pyrene	20.0	16.6		ug/L		83	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	73		28 - 127
2-Fluorobiphenyl (Surr)	68		31 - 120
2-Fluorophenol (Surr)	49		17 - 120
Nitrobenzene-d5 (Surr)	61		27 - 120
Phenol-d6 (Surr)	32		10 - 120
p-Terphenyl-d14 (Surr)	70		45 - 120

Lab Sample ID: LCSD 570-520236/3-A
Matrix: Water
Analysis Batch: 520804

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 520236

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	14.7		ug/L		73	47 - 120	2	20
2-Methylnaphthalene	20.0	16.6		ug/L		83	43 - 120	1	20
Acenaphthene	20.0	15.4		ug/L		77	60 - 132	4	29
Acenaphthylene	20.0	15.1		ug/L		75	54 - 126	1	45
Anthracene	20.0	15.7		ug/L		79	43 - 120	1	40
Benzo[a]anthracene	20.0	16.6		ug/L		83	42 - 133	1	32
Benzo[a]pyrene	20.0	17.8		ug/L		89	32 - 148	2	43
Benzo[b]fluoranthene	20.0	17.0		ug/L		85	42 - 140	1	43
Benzo[g,h,i]perylene	20.0	15.8		ug/L		79	1 - 195	1	61
Benzo[k]fluoranthene	20.0	16.8		ug/L		84	25 - 146	1	38
Chrysene	20.0	16.0		ug/L		80	44 - 140	0	53
Dibenz(a,h)anthracene	20.0	16.4		ug/L		82	1 - 200	1	75
Fluoranthene	20.0	16.1		ug/L		80	43 - 121	2	40
Fluorene	20.0	15.4		ug/L		77	70 - 120	3	23
Indeno[1,2,3-cd]pyrene	20.0	16.9		ug/L		85	1 - 151	1	60
Naphthalene	20.0	14.4		ug/L		72	36 - 120	3	39

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-128393-1
 SDG: Weekly

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

Lab Sample ID: LCSD 570-520236/3-A
Matrix: Water
Analysis Batch: 520804

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 520236

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	20.0	15.5		ug/L		77	65 - 120	2	24
Pyrene	20.0	16.7		ug/L		84	70 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	71		28 - 127
2-Fluorobiphenyl (Surr)	68		31 - 120
2-Fluorophenol (Surr)	55		17 - 120
Nitrobenzene-d5 (Surr)	64		27 - 120
Phenol-d6 (Surr)	36		10 - 120
p-Terphenyl-d14 (Surr)	74		45 - 120

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

Lab Sample ID: MB 570-521596/5
Matrix: Water
Analysis Batch: 521596

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			01/09/25 12:01	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		38 - 134		01/09/25 12:01	1

Lab Sample ID: LCS 570-521596/3
Matrix: Water
Analysis Batch: 521596

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	440		ug/L		110	78 - 120

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
4-Bromofluorobenzene (Surr)	99		38 - 134

Lab Sample ID: LCSD 570-521596/4
Matrix: Water
Analysis Batch: 521596

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	436		ug/L		109	78 - 120	1	10

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	100		38 - 134

QC Sample Results

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

Job ID: 380-128393-1
SDG: Weekly

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

Lab Sample ID: MRL 570-521596/16
Matrix: Water
Analysis Batch: 521596

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	12.5		ug/L		125	50 - 150
Surrogate		MRL %Recovery	MRL Qualifier				Limits
4-Bromofluorobenzene (Surr)		99					38 - 134

Lab Sample ID: 380-128745-C-1 MS
Matrix: Water
Analysis Batch: 521596

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	<10		400	446		ug/L		112	68 - 122
Surrogate		MS %Recovery		MS Qualifier					Limits
4-Bromofluorobenzene (Surr)		100							38 - 134

Lab Sample ID: 380-128745-C-1 MSD
Matrix: Water
Analysis Batch: 521596

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	439		ug/L		110	68 - 122	2	18
Surrogate		MSD %Recovery		MSD Qualifier					Limits		
4-Bromofluorobenzene (Surr)		100							38 - 134		

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

Lab Sample ID: MB 570-521798/1-A
Matrix: Water
Analysis Batch: 522524

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 521798

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		01/09/25 19:50	01/13/25 17:30	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		01/09/25 19:50	01/13/25 17:30	1
C8-C18	<25		25	ug/L		01/09/25 19:50	01/13/25 17:30	1
Surrogate		MB %Recovery	MB Qualifier			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)		122				01/09/25 19:50	01/13/25 17:30	1

Lab Sample ID: LCS 570-521798/2-A
Matrix: Water
Analysis Batch: 522524

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 521798

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1640		ug/L		103	56 - 127

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-128393-1
 SDG: Weekly

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

Lab Sample ID: LCS 570-521798/2-A
Matrix: Water
Analysis Batch: 522524

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 521798

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>n-Octacosane (Surr)</i>	115		60 - 130

Lab Sample ID: LCSD 570-521798/3-A
Matrix: Water
Analysis Batch: 522524

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 521798

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C10-C28	1600	1520		ug/L		95	56 - 127	8	23

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>n-Octacosane (Surr)</i>	115		60 - 130

Lab Sample ID: MRL 570-521798/6-A
Matrix: Water
Analysis Batch: 522524

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 521798

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	Limits
C10-C28	0.0200	0.0229	J	mg/L		114	50 - 150

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

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QC Association Summary

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

Job ID: 380-128393-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 126456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-128393-1	Halawa Shaft Viewing Pool	Total/NA	Water	525.2	
MB 380-126456/18-A	Method Blank	Total/NA	Water	525.2	
LCS 380-126456/20-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-126456/19-A	Lab Control Sample	Total/NA	Water	525.2	
380-128194-AI-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-128247-AJ-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 126489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-128393-1	Halawa Shaft Viewing Pool	Total/NA	Water	525.2	126456
MB 380-126456/18-A	Method Blank	Total/NA	Water	525.2	126456
LCS 380-126456/20-A	Lab Control Sample	Total/NA	Water	525.2	126456
MRL 380-126456/19-A	Lab Control Sample	Total/NA	Water	525.2	126456
380-128194-AI-1-A MS	Matrix Spike	Total/NA	Water	525.2	126456
380-128247-AJ-1-A DU	Duplicate	Total/NA	Water	525.2	126456

Prep Batch: 520236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-128393-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1	
MB 570-520236/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-520236/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-520236/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 520804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-520236/1-A	Method Blank	Total/NA	Water	625.1 SIM	520236
LCS 570-520236/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	520236
LCSD 570-520236/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	520236

Analysis Batch: 521112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-128393-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1 SIM	520236

Analysis Batch: 523483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-128393-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1	520236
MB 570-520236/1-A	Method Blank	Total/NA	Water	625.1	520236

GC VOA

Analysis Batch: 521596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-128393-1	Halawa Shaft Viewing Pool	Total/NA	Water	8015B GRO LL	
380-128393-2	TB: Halawa Shaft Viewing Pool	Total/NA	Water	8015B GRO LL	
MB 570-521596/5	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-521596/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-521596/4	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-521596/16	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-128745-C-1 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-128745-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

QC Association Summary

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

Job ID: 380-128393-1
 SDG: Weekly

GC Semi VOA

Prep Batch: 521798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-128393-1	Halawa Shaft Viewing Pool	Total/NA	Water	3510C	
MB 570-521798/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-521798/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-521798/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-521798/6-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 522524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-128393-1	Halawa Shaft Viewing Pool	Total/NA	Water	8015B	521798
MB 570-521798/1-A	Method Blank	Total/NA	Water	8015B	521798
LCS 570-521798/2-A	Lab Control Sample	Total/NA	Water	8015B	521798
LCSD 570-521798/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	521798
MRL 570-521798/6-A	Lab Control Sample	Total/NA	Water	8015B	521798

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Lab Chronicle

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

Job ID: 380-128393-1
 SDG: Weekly

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-128393-1

Date Collected: 01/02/25 10:00

Matrix: Water

Date Received: 01/03/25 08:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			126456	OTM3	EA POM	01/06/25 06:47
Total/NA	Analysis	525.2		1	126489	Q8LA	EA POM	01/06/25 15:27
Total/NA	Prep	625.1			520236	UD4J	EET CAL 4	01/04/25 11:56
Total/NA	Analysis	625.1		1	523483	CG	EET CAL 4	01/16/25 15:22
Total/NA	Prep	625.1			520236	UD4J	EET CAL 4	01/04/25 11:56
Total/NA	Analysis	625.1 SIM		1	521112	PQS1	EET CAL 4	01/08/25 09:52
Total/NA	Analysis	8015B GRO LL		1	521596	A9VE	EET CAL 4	01/09/25 19:06
Total/NA	Prep	3510C			521798	TVD6	EET CAL 4	01/09/25 19:52
Total/NA	Analysis	8015B		1	522524	UJ3K	EET CAL 4	01/13/25 18:34

Client Sample ID: TB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-128393-2

Date Collected: 01/02/25 10:00

Matrix: Water

Date Received: 01/03/25 08:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	521596	A9VE	EET CAL 4	01/09/25 19:55

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: 380-128393-1
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
<p>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.</p>			
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: 380-128393-1
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: 380-128393-1
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: 380-128393-1
SDG: Weekly

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
380-128393-1	Halawa Shaft Viewing Pool	Water	01/02/25 10:00	01/03/25 08:55
380-128393-2	TB: Halawa Shaft Viewing Pool	Water	01/02/25 10:00	01/03/25 08:55

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Chain of Custody Record

Client Information		Sampler: Ryan Greer		Lab P/N: Arada, Rachelle		Center Tracking No(s): 380-28005-2757 1	
Client Contact: Dr Ron Fenstermacher		Phone: 808-748-5840		E-Mail: Rachelle.Arada@et.eurofins.com		State of Origin: HI	
Company: City & County of Honolulu		PWSD:		Due Date Requested:		Page: Page 1 of 1	
Address: 630 South Beretania Street, Chemistry Lab, Honolulu		TAT Requested (days):		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Job #:	
State, Zip: HI, 96843		PO #: C20925101 exp 0531/2023		WC #:		Preservation Codes: R - NaHCO3 RA - NaOH/HCl G - Na2SO3 GA - Na2SO3/HCl Y - Tizma I - NH4 Acetate	
Email: RFENSTEMACHER@hbws.org		Project #: 38001111		SSOW#: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill		Other:	
Site: Hawaii		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Halawa Shaft Viewing Pool		1/2/25		000		G Water	
TRIP BLANK		1/2/25		000		G Water	
Special Instructions/Note:		Field Filtered Sample (Yes or No)		Matrix (Water, Seawater, Other)		Special Instructions/Note: 380-128393 COC	
Total Number of Containers		R		RA		QA	
635, 628, 1, 518		2		3		2	
60158_GRO_LL (MOD) GRO		2		3		2	
60158_DRO_LL_CS - HNL Ranges: C19-C24/C24-C18/CS		2		3		2	
625_2_PREC - (MOD) 625plus Plus TICs		2		3		2	
637_1_DW_PREC - 637/1 Full List		2		3		2	
633 - All Analytes		2		3		2	
Analysis Requested		Field Filtered Sample (Yes or No)		Matrix (Water, Seawater, Other)		Special Instructions/Note: 380-128393 COC	
533 - All Analytes		2		3		2	
637_1_DW_PREC - 637/1 Full List		2		3		2	
625_2_PREC - (MOD) 625plus Plus TICs		2		3		2	
60158_GRO_LL (MOD) GRO		2		3		2	
60158_DRO_LL_CS - HNL Ranges: C19-C24/C24-C18/CS		2		3		2	
635, 628, 1, 518		2		3		2	
Possible Hazard Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		1/2/25		000		G Water	
Deliverable Requested: I, II, III, IV, Other (specify)		Date		Time		Matrix (Water, Seawater, Other)	
Empty Kit Relinquished by		Date		Time		Special Instructions/Note: 380-128393 COC	
Relinquished by		Date		Time		Special Instructions/Note: 380-128393 COC	
Relinquished by		Date		Time		Special Instructions/Note: 380-128393 COC	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Date		Time		Special Instructions/Note: 380-128393 COC	
Custody Seal No.:		Date		Time		Special Instructions/Note: 380-128393 COC	



ORIGIN ID-HIKA (808) 748-5640
BWS CHEMI AB
HONOLULU BOARD OF WATER SUPPLY
630 S BERETANIA ST
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES US

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

POMONA CA 91768 REF:
(626) 386-1100 INV

PO: DEPT:



FRI - 03 JAN 12:00P
PRIORITY OVERNIGHT

TRK# 7711 6661 2101

WM ONTA

91768
CA-US ONT



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Eurofins Eaton Analytical Pomona




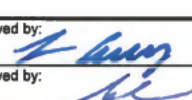
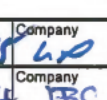


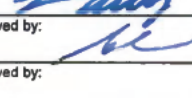
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record



eurofins

Loc: 380
Er **128393**

Client Information (Sub Contract Lab)				Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:						
Client Contact: Shipping/Receiving				N/A	Arada, Rachelle	N/A	380-180329.1						
Company: Eurofins Environment Testing Southwest				Phone: N/A	E-Mail: Rachelle.Arada@et.eurofins.com	State of Origin: Hawaii	Page: Page 1 of 1						
Address: 2841 Dow Avenue, Suite 100, City: Tustin State, Zip: CA, 92780 Phone: 714-895-5494(Tel) Email: N/A Project Name: RED-HILL Site: Honolulu BWS Sites				Due Date Requested: 1/16/2025 TAT Requested (days): N/A	Accreditations Required (See note): State - Hawaii		Job #: 380-128393-1 Preservation Codes: - Other: N/A						
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO_LL_CS/3510C_LL_HNL Ranges: C10-C24/C24-C36/C8-C18	8015B_GRO_LL/5030C (MOD) GRO	625.1_SIM/625_Prep (MOD) Extended List	Total Number of containers	Special Instructions/Note:	
Halawa Shaft Viewing Pool (380-128393-1)				1/2/25	10:00 Hawaiian	G	Water		X	X	X	7	MRLs are needed. Confirm any hits >RL.
TB: Halawa Shaft Viewing Pool (380-128393-2)				1/2/25	10:00 Hawaiian	G	Water			X	2	MRLs are needed.	
 380-128393 Chain of Custody													
<small>Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.</small>													
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:							
Empty Kit Relinquished by:				Date:	Time:	Method of Shipment:							
Relinquished by: 				Date/Time: 1/3/25 14:31	Company: 	Received by: 		Date/Time: 1/3/25 14:34	Company: 				
Relinquished by: 				Date/Time: 1-25 15:34	Company: 	Received by: 		Date/Time: 1/3/24 15:34	Company: REC				
Custody Seals Intact: Δ Yes Δ No				Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.7/0.9 seal							

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Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-128393-1

SDG Number: Weekly

Login Number: 128393

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Sanchez Velasquez, Gustavo

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.	N/A	
COC is filled out with all pertinent information.	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
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: 380-128393-1

SDG Number: Weekly

Login Number: 128393

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 01/03/25 06:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4
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	