

ANALYTICAL REPORT

PREPARED FOR

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Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
RUSH Weekly Red Hill

JOB NUMBER

380-118198-1

Eurofins Eaton Analytical Pomona

Job Notes

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

Compliance Statement

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

Authorization



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Definitions/Glossary

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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: 380-118198-1

Job ID: 380-118198-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-118198-1

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 10/17/2024 10:17 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 3.7°C.

GC/MS Semi VOA

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

Gasoline Range Organics

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

Diesel Range Organics

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

Detection Summary

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-118198-1

No Detections.

Client Sample ID: FB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-118198-2

No Detections.

- 1
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This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-118198-1

Date Collected: 10/15/24 11:00

Matrix: Water

Date Received: 10/17/24 10:17

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
2,4'-DDD	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
2,4'-DDE	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
2,4'-DDT	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
2-Methylnaphthalene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
4,4'-DDD	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
4,4'-DDE	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
4,4'-DDT	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Acenaphthene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Acenaphthylene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Acetochlor	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Alachlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
alpha-BHC	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
alpha-Chlordane	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Anthracene	<0.020		0.020	ug/L		10/21/24 09:14	10/22/24 16:43	1
Atrazine	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Benz(a)anthracene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Benzo[a]pyrene	<0.020		0.020	ug/L		10/21/24 09:14	10/22/24 16:43	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		10/21/24 09:14	10/22/24 16:43	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		10/21/24 09:14	10/22/24 16:43	1
beta-BHC	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		10/21/24 09:14	10/22/24 16:43	1
Bromacil	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Butachlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Butylbenzylphthalate	<0.50		0.50	ug/L		10/21/24 09:14	10/22/24 16:43	1
Chlorobenzilate	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Chloroneb	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Chlorpyrifos	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Chrysene	<0.020		0.020	ug/L		10/21/24 09:14	10/22/24 16:43	1
delta-BHC	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		10/21/24 09:14	10/22/24 16:43	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Dieldrin	<0.0099	^3+	0.0099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Diethylphthalate	<0.50		0.50	ug/L		10/21/24 09:14	10/22/24 16:43	1
Dimethylphthalate	<0.50		0.50	ug/L		10/21/24 09:14	10/22/24 16:43	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		10/21/24 09:14	10/22/24 16:43	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Endosulfan sulfate	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Endrin	<0.0099		0.0099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Endrin aldehyde	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
EPTC	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Fluoranthene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1

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Client Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-118198-1

Date Collected: 10/15/24 11:00

Matrix: Water

Date Received: 10/17/24 10:17

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		10/21/24 09:14	10/22/24 16:43	1
gamma-Chlordane	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Heptachlor	<0.0099		0.0099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Hexachlorobenzene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Isophorone	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Lindane	<0.0099	^3+	0.0099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Malathion	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Methoxychlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Metolachlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Molinate	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Naphthalene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Parathion	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Phenanthrene	<0.040		0.040	ug/L		10/21/24 09:14	10/22/24 16:43	1
Propachlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Pyrene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Simazine	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Terbacil	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Terbutylazine	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Thiobencarb	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		10/21/24 09:14	10/22/24 16:43	1
trans-Nonachlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 16:43	1
Trifluralin	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 16:43	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	10/21/24 09:14	10/22/24 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	95		70 - 130	10/21/24 09:14	10/22/24 16:43	1
Perylene-d12	89		70 - 130	10/21/24 09:14	10/22/24 16:43	1
Triphenylphosphate	105		70 - 130	10/21/24 09:14	10/22/24 16:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
2-Methylnaphthalene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Acenaphthene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Acenaphthylene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Anthracene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Benzo[a]anthracene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Benzo[a]pyrene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Chrysene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Fluoranthene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-118198-1

Date Collected: 10/15/24 11:00

Matrix: Water

Date Received: 10/17/24 10:17

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Naphthalene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Phenanthrene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1
Pyrene	<0.20		0.20	ug/L		10/22/24 11:56	10/30/24 11:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	94		28 - 127	10/22/24 11:56	10/30/24 11:01	1
2-Fluorobiphenyl (Surr)	92		31 - 120	10/22/24 11:56	10/30/24 11:01	1
2-Fluorophenol (Surr)	51		17 - 120	10/22/24 11:56	10/30/24 11:01	1
Nitrobenzene-d5 (Surr)	87		27 - 120	10/22/24 11:56	10/30/24 11:01	1
Phenol-d6 (Surr)	33		10 - 120	10/22/24 11:56	10/30/24 11:01	1
p-Terphenyl-d14 (Surr)	109		45 - 120	10/22/24 11:56	10/30/24 11:01	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	10/22/24 11:56	10/31/24 16:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	81		33 - 139	10/22/24 11:56	10/31/24 16:38	1
2-Fluorobiphenyl (Surr)	93		33 - 126	10/22/24 11:56	10/31/24 16:38	1
2-Fluorophenol (Surr)	51		12 - 120	10/22/24 11:56	10/31/24 16:38	1
Nitrobenzene-d5 (Surr)	93		36 - 120	10/22/24 11:56	10/31/24 16:38	1
Phenol-d6 (Surr)	28		10 - 120	10/22/24 11:56	10/31/24 16:38	1
p-Terphenyl-d14 (Surr)	87		47 - 131	10/22/24 11:56	10/31/24 16:38	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			10/25/24 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		38 - 134		10/25/24 17:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<26		26	ug/L		10/18/24 11:27	10/19/24 11:19	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		10/18/24 11:27	10/19/24 11:19	1
C8-C18	<26		26	ug/L		10/18/24 11:27	10/19/24 11:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	93		60 - 130	10/18/24 11:27	10/19/24 11:19	1

Client Sample ID: FB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-118198-2

Date Collected: 10/15/24 11:00

Matrix: Water

Date Received: 10/17/24 10:17

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			10/25/24 23:21	1

Client Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

Client Sample ID: FB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-118198-2

Date Collected: 10/15/24 11:00

Matrix: Water

Date Received: 10/17/24 10:17

<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)	86		38 - 134		10/25/24 23:21	1

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- 14
- 15
- 16

Action Limit Summary

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-118198-1

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	<0.0099		ug/L	2	0.0099	525.2	Total/NA
Heptachlor	<0.0099		ug/L	0.4	0.0099	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0099		ug/L	0.2	0.0099	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	<0.0099	^3+	ug/L	0.2	0.0099	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	<0.20		ug/L	0.2	0.20	625.1 SIM	Total/NA

Surrogate Summary

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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)
380-117693-E-1-A MS	Matrix Spike	98	100	105
380-118198-1	Halawa Shaft Viewing Pool	95	89	105
380-118418-B-1-A DU	Duplicate	99	97	110
LCS 380-114562/21-A	Lab Control Sample	96	94	106
LCSD 380-114562/22-A	Lab Control Sample Dup	98	92	106
MB 380-114562/19-A	Method Blank	96	94	105
MRL 380-114562/20-A	Lab Control Sample	98	90	108

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)
380-118198-1	Halawa Shaft Viewing Pool	81	93	51	93	28	87
MB 570-493852/1-A	Method Blank	77	81	62	89	39	88

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)
380-118198-1	Halawa Shaft Viewing Pool	94	92	51	87	33	109
LCS 570-493852/2-A	Lab Control Sample	83	48	60	43	42	56
LCSD 570-493852/3-A	Lab Control Sample Dup	93	54	64	47	47	62
MB 570-493852/1-A	Method Blank	102	50	58	54	38	58

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: 380-118198-1
 SDG: RUSH Weekly Red Hill

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)
380-118070-E-3 MS	Matrix Spike	95
380-118070-E-3 MSD	Matrix Spike Duplicate	95
380-118198-1	Halawa Shaft Viewing Pool	87
380-118198-2	FB: Halawa Shaft Viewing Pool	86
380-119032-B-3 MS	Matrix Spike	91
380-119032-B-3 MSD	Matrix Spike Duplicate	92
LCS 570-495570/1008	Lab Control Sample	94
LCSD 570-495570/9	Lab Control Sample Dup	95
MB 570-495570/10	Method Blank	88
MRL 570-495570/1003	Lab Control Sample	87

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)
380-118070-C-3-A MS	Matrix Spike	95
380-118070-C-3-B MSD	Matrix Spike Duplicate	96
380-118198-1	Halawa Shaft Viewing Pool	93
LCS 570-493093/2-A	Lab Control Sample	97
LCSD 570-493093/3-A	Lab Control Sample Dup	93
MB 570-493093/1-A	Method Blank	94
MRL 570-493093/4-A	Lab Control Sample	97

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: MB 380-114562/19-A
Matrix: Water
Analysis Batch: 114803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114562

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
2,4'-DDD	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
2,4'-DDE	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
2,4'-DDT	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
2-Methylnaphthalene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
4,4'-DDD	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
4,4'-DDE	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
4,4'-DDT	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Acenaphthene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Acenaphthylene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Acetochlor	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Alachlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
alpha-BHC	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
alpha-Chlordane	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Anthracene	<0.020		0.020	ug/L		10/21/24 09:14	10/22/24 13:40	1
Atrazine	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Benz(a)anthracene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Benzo[a]pyrene	<0.020		0.020	ug/L		10/21/24 09:14	10/22/24 13:40	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		10/21/24 09:14	10/22/24 13:40	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		10/21/24 09:14	10/22/24 13:40	1
beta-BHC	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		10/21/24 09:14	10/22/24 13:40	1
Bromacil	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Butachlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Butylbenzylphthalate	<0.50		0.50	ug/L		10/21/24 09:14	10/22/24 13:40	1
Chlorobenzilate	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Chloroneb	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Chlorpyrifos	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Chrysene	<0.020		0.020	ug/L		10/21/24 09:14	10/22/24 13:40	1
delta-BHC	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		10/21/24 09:14	10/22/24 13:40	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Dieldrin	<0.0099	^3+	0.0099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Diethylphthalate	<0.50		0.50	ug/L		10/21/24 09:14	10/22/24 13:40	1
Dimethylphthalate	<0.50		0.50	ug/L		10/21/24 09:14	10/22/24 13:40	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		10/21/24 09:14	10/22/24 13:40	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Endosulfan sulfate	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Endrin	<0.0099		0.0099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Endrin aldehyde	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
EPTC	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1

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QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: MB 380-114562/19-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 114803

Prep Batch: 114562

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Fluoranthene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Fluorene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
gamma-Chlordane	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Heptachlor	<0.0099		0.0099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Hexachlorobenzene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Isophorone	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Lindane	<0.0099	^3+	0.0099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Malathion	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Methoxychlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Metolachlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Molinate	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Naphthalene	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Parathion	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Phenanthrene	<0.040		0.040	ug/L		10/21/24 09:14	10/22/24 13:40	1
Propachlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Pyrene	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Simazine	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Terbacil	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Terbutylazine	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Thiobencarb	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		10/21/24 09:14	10/22/24 13:40	1
trans-Nonachlor	<0.050		0.050	ug/L		10/21/24 09:14	10/22/24 13:40	1
Trifluralin	<0.099		0.099	ug/L		10/21/24 09:14	10/22/24 13:40	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Cyclopentasiloxane, decamethyl-	0.574	T J N	ug/L		3.32	541-02-6	10/21/24 09:14	10/22/24 13:40	1
Cyclohexasiloxane, dodecamethyl-	0.508	T J N	ug/L		3.94	540-97-6	10/21/24 09:14	10/22/24 13:40	1
Unknown	0.793	T J	ug/L		11.43	N/A	10/21/24 09:14	10/22/24 13:40	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Nitro-m-xylene	96		70 - 130	10/21/24 09:14	10/22/24 13:40	1
Perylene-d12	94		70 - 130	10/21/24 09:14	10/22/24 13:40	1
Triphenylphosphate	105		70 - 130	10/21/24 09:14	10/22/24 13:40	1

Lab Sample ID: LCS 380-114562/21-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 114803

Prep Batch: 114562

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	1.98	1.90		ug/L		96	70 - 130
2,4'-DDD	1.98	2.08		ug/L		105	70 - 130
2,4'-DDE	1.98	2.01		ug/L		102	70 - 130
2,4'-DDT	1.98	1.87		ug/L		94	70 - 130
2,4-Dinitrotoluene	1.98	2.03		ug/L		102	70 - 130

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QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: LCS 380-114562/21-A

Matrix: Water

Analysis Batch: 114803

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114562

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
2,6-Dinitrotoluene	1.98	2.01		ug/L		102	70 - 130
2-Methylnaphthalene	1.98	1.90		ug/L		96	70 - 130
4,4'-DDD	1.98	1.98		ug/L		100	70 - 130
4,4'-DDE	1.98	1.99		ug/L		100	70 - 130
4,4'-DDT	1.98	1.84		ug/L		93	70 - 130
Acenaphthene	1.98	1.92		ug/L		97	70 - 130
Acenaphthylene	1.98	1.97		ug/L		99	70 - 130
Acetochlor	1.98	2.08		ug/L		105	70 - 130
Alachlor	1.98	2.01		ug/L		101	70 - 130
alpha-BHC	1.98	1.96		ug/L		99	70 - 130
alpha-Chlordane	1.98	2.06		ug/L		104	70 - 130
Anthracene	1.98	1.89		ug/L		95	70 - 130
Atrazine	1.98	2.25		ug/L		113	70 - 130
Benz(a)anthracene	1.98	1.94		ug/L		98	70 - 130
Benzo[a]pyrene	1.98	2.11		ug/L		106	70 - 130
Benzo[b]fluoranthene	1.98	2.01		ug/L		101	70 - 130
Benzo[g,h,i]perylene	1.98	1.80		ug/L		91	70 - 130
Benzo[k]fluoranthene	1.98	1.93		ug/L		97	70 - 130
beta-BHC	1.98	1.98		ug/L		100	70 - 130
Bis(2-ethylhexyl) phthalate	1.98	1.75		ug/L		88	70 - 130
Bromacil	1.98	2.10		ug/L		106	70 - 130
Butachlor	1.98	1.96		ug/L		99	70 - 130
Butylbenzylphthalate	1.98	2.02		ug/L		102	70 - 130
Chlorobenzilate	1.98	2.00		ug/L		101	70 - 130
Chloroneb	1.98	2.04		ug/L		103	70 - 130
Chlorothalonil (Draconil, Bravo)	1.98	2.05		ug/L		103	70 - 130
Chlorpyrifos	1.98	2.13		ug/L		107	70 - 130
Chrysene	1.98	2.00		ug/L		101	70 - 130
delta-BHC	1.98	1.93		ug/L		97	70 - 130
Di(2-ethylhexyl)adipate	1.98	1.96		ug/L		99	70 - 130
Dibenz(a,h)anthracene	1.98	1.94		ug/L		98	70 - 130
Diclorvos (DDVP)	1.98	1.93		ug/L		97	70 - 130
Dieldrin	1.98	1.92		ug/L		97	70 - 130
Diethylphthalate	1.98	2.07		ug/L		104	70 - 130
Dimethylphthalate	1.98	2.01		ug/L		101	70 - 130
Di-n-butyl phthalate	3.97	4.08		ug/L		103	70 - 130
Di-n-octyl phthalate	1.98	1.65		ug/L		83	70 - 130
Endosulfan I (Alpha)	1.98	1.93		ug/L		97	70 - 130
Endosulfan II (Beta)	1.98	1.95		ug/L		98	70 - 130
Endosulfan sulfate	1.98	1.89		ug/L		95	70 - 130
Endrin	1.98	2.16		ug/L		109	70 - 130
Endrin aldehyde	1.98	1.75		ug/L		88	60 - 130
EPTC	1.98	2.01		ug/L		102	70 - 130
Fluoranthene	1.98	2.11		ug/L		107	70 - 130
Fluorene	1.98	2.03		ug/L		102	70 - 130
gamma-Chlordane	1.98	2.04		ug/L		103	70 - 130
Heptachlor	1.98	2.08		ug/L		105	70 - 130
Heptachlor epoxide (isomer B)	1.98	1.94		ug/L		98	70 - 130
Hexachlorobenzene	1.98	1.87		ug/L		94	70 - 130

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QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: LCS 380-114562/21-A

Matrix: Water

Analysis Batch: 114803

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114562

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Hexachlorocyclopentadiene	1.98	2.00		ug/L		101	70 - 130	
Indeno[1,2,3-cd]pyrene	1.98	1.96		ug/L		99	70 - 130	
Isophorone	1.98	1.96		ug/L		99	70 - 130	
Lindane	1.98	1.92		ug/L		97	70 - 130	
Malathion	1.98	2.31		ug/L		117	70 - 130	
Methoxychlor	1.98	2.01		ug/L		101	70 - 130	
Metolachlor	1.98	2.14		ug/L		108	70 - 130	
Molinate	1.98	2.03		ug/L		102	70 - 130	
Naphthalene	1.98	1.92		ug/L		97	70 - 130	
Parathion	1.98	2.14		ug/L		108	70 - 130	
Pendimethalin (Penoxaline)	1.98	1.99		ug/L		100	70 - 130	
Phenanthrene	1.98	1.91		ug/L		96	70 - 130	
Propachlor	1.98	2.09		ug/L		106	70 - 130	
Pyrene	1.98	2.16		ug/L		109	70 - 130	
Simazine	1.98	2.20		ug/L		111	70 - 130	
Terbacil	1.98	2.31		ug/L		116	70 - 130	
Terbutylazine	1.98	2.22		ug/L		112	70 - 130	
Thiobencarb	1.98	2.12		ug/L		107	70 - 130	
trans-Nonachlor	1.98	2.05		ug/L		103	70 - 130	
Trifluralin	1.98	1.94		ug/L		98	70 - 130	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	106		70 - 130

Lab Sample ID: LCSD 380-114562/22-A

Matrix: Water

Analysis Batch: 114803

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114562

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits		RPD	Limit
1-Methylnaphthalene	1.99	1.97		ug/L		99	70 - 130	3	20	
2,4'-DDD	1.99	2.12		ug/L		107	70 - 130	2	20	
2,4'-DDE	1.99	2.03		ug/L		102	70 - 130	1	20	
2,4'-DDT	1.99	1.87		ug/L		94	70 - 130	0	20	
2,4-Dinitrotoluene	1.99	2.13		ug/L		107	70 - 130	5	20	
2,6-Dinitrotoluene	1.99	2.11		ug/L		106	70 - 130	4	20	
2-Methylnaphthalene	1.99	1.97		ug/L		99	70 - 130	3	20	
4,4'-DDD	1.99	2.02		ug/L		102	70 - 130	2	20	
4,4'-DDE	1.99	1.98		ug/L		99	70 - 130	1	20	
4,4'-DDT	1.99	1.82		ug/L		92	70 - 130	1	20	
Acenaphthene	1.99	2.00		ug/L		101	70 - 130	4	20	
Acenaphthylene	1.99	2.04		ug/L		103	70 - 130	4	20	
Acetochlor	1.99	2.16		ug/L		109	70 - 130	4	20	
Alachlor	1.99	2.04		ug/L		103	70 - 130	2	20	
alpha-BHC	1.99	2.03		ug/L		102	70 - 130	4	20	
alpha-Chlordane	1.99	2.14		ug/L		108	70 - 130	4	20	
Anthracene	1.99	1.94		ug/L		97	70 - 130	2	20	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: LCSD 380-114562/22-A

Matrix: Water

Analysis Batch: 114803

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114562

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
Atrazine	1.99	2.34		ug/L		118	70 - 130	4	20	
Benz(a)anthracene	1.99	1.99		ug/L		100	70 - 130	3	20	
Benzo[a]pyrene	1.99	2.22		ug/L		112	70 - 130	5	20	
Benzo[b]fluoranthene	1.99	2.14		ug/L		108	70 - 130	6	20	
Benzo[g,h,i]perylene	1.99	1.82		ug/L		92	70 - 130	1	20	
Benzo[k]fluoranthene	1.99	1.97		ug/L		99	70 - 130	2	20	
beta-BHC	1.99	2.04		ug/L		103	70 - 130	3	20	
Bis(2-ethylhexyl) phthalate	1.99	1.74		ug/L		88	70 - 130	0	20	
Bromacil	1.99	2.14		ug/L		108	70 - 130	2	20	
Butachlor	1.99	2.03		ug/L		102	70 - 130	3	20	
Butylbenzylphthalate	1.99	2.09		ug/L		105	70 - 130	3	20	
Chlorobenzilate	1.99	2.02		ug/L		101	70 - 130	1	20	
Chloroneb	1.99	2.14		ug/L		108	70 - 130	5	20	
Chlorothalonil (Draconil, Bravo)	1.99	2.15		ug/L		108	70 - 130	5	20	
Chlorpyrifos	1.99	2.19		ug/L		110	70 - 130	3	20	
Chrysene	1.99	2.14		ug/L		108	70 - 130	7	20	
delta-BHC	1.99	1.99		ug/L		100	70 - 130	3	20	
Di(2-ethylhexyl)adipate	1.99	1.81		ug/L		91	70 - 130	8	20	
Dibenz(a,h)anthracene	1.99	1.87		ug/L		94	70 - 130	4	20	
Diclorvos (DDVP)	1.99	2.04		ug/L		103	70 - 130	6	20	
Dieldrin	1.99	2.04		ug/L		103	70 - 130	6	20	
Diethylphthalate	1.99	2.16		ug/L		108	70 - 130	4	20	
Dimethylphthalate	1.99	2.08		ug/L		105	70 - 130	3	20	
Di-n-butyl phthalate	3.97	4.18		ug/L		105	70 - 130	2	20	
Di-n-octyl phthalate	1.99	1.62		ug/L		82	70 - 130	2	20	
Endosulfan I (Alpha)	1.99	2.01		ug/L		101	70 - 130	4	20	
Endosulfan II (Beta)	1.99	2.01		ug/L		101	70 - 130	3	20	
Endosulfan sulfate	1.99	1.97		ug/L		99	70 - 130	4	20	
Endrin	1.99	2.21		ug/L		111	70 - 130	2	20	
Endrin aldehyde	1.99	1.81		ug/L		91	60 - 130	3	20	
EPTC	1.99	2.09		ug/L		105	70 - 130	4	20	
Fluoranthene	1.99	2.20		ug/L		111	70 - 130	4	20	
Fluorene	1.99	2.12		ug/L		107	70 - 130	4	20	
gamma-Chlordane	1.99	2.07		ug/L		104	70 - 130	1	20	
Heptachlor	1.99	2.13		ug/L		107	70 - 130	2	20	
Heptachlor epoxide (isomer B)	1.99	2.00		ug/L		101	70 - 130	3	20	
Hexachlorobenzene	1.99	1.93		ug/L		97	70 - 130	3	20	
Hexachlorocyclopentadiene	1.99	2.09		ug/L		105	70 - 130	4	20	
Indeno[1,2,3-cd]pyrene	1.99	1.96		ug/L		99	70 - 130	0	20	
Isophorone	1.99	2.03		ug/L		102	70 - 130	4	20	
Lindane	1.99	1.96		ug/L		98	70 - 130	2	20	
Malathion	1.99	2.36		ug/L		119	70 - 130	2	20	
Methoxychlor	1.99	2.16		ug/L		108	70 - 130	7	20	
Metolachlor	1.99	2.22		ug/L		111	70 - 130	3	20	
Molinate	1.99	2.10		ug/L		106	70 - 130	3	20	
Naphthalene	1.99	1.98		ug/L		100	70 - 130	3	20	
Parathion	1.99	2.18		ug/L		110	70 - 130	2	20	
Pendimethalin (Penoxaline)	1.99	2.06		ug/L		104	70 - 130	4	20	
Phenanthrene	1.99	1.96		ug/L		99	70 - 130	2	20	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: LCSD 380-114562/22-A

Matrix: Water

Analysis Batch: 114803

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114562

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Propachlor	1.99	2.17		ug/L		109	70 - 130	4	20	
Pyrene	1.99	2.21		ug/L		111	70 - 130	2	20	
Simazine	1.99	2.25		ug/L		113	70 - 130	2	20	
Terbacil	1.99	2.35		ug/L		118	70 - 130	2	20	
Terbutylazine	1.99	2.28		ug/L		115	70 - 130	3	20	
Thiobencarb	1.99	2.18		ug/L		110	70 - 130	3	20	
trans-Nonachlor	1.99	2.08		ug/L		105	70 - 130	2	20	
Trifluralin	1.99	1.99		ug/L		100	70 - 130	3	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	92		70 - 130
Triphenylphosphate	106		70 - 130

Lab Sample ID: MRL 380-114562/20-A

Matrix: Water

Analysis Batch: 114803

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114562

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec	
							Limits	RPD
1-Methylnaphthalene	0.0993	0.116		ug/L		117	50 - 150	
2,4'-DDD	0.0993	0.104		ug/L		105	50 - 150	
2,4'-DDE	0.0993	0.106		ug/L		107	50 - 150	
2,4'-DDT	0.0993	0.114		ug/L		115	50 - 150	
2,4-Dinitrotoluene	0.0993	0.111		ug/L		111	50 - 150	
2,6-Dinitrotoluene	0.0993	0.120		ug/L		121	50 - 150	
2-Methylnaphthalene	0.0993	0.107		ug/L		107	50 - 150	
4,4'-DDD	0.0993	0.127		ug/L		128	50 - 150	
4,4'-DDE	0.0993	0.107		ug/L		108	50 - 150	
4,4'-DDT	0.0993	0.111		ug/L		112	50 - 150	
Acenaphthene	0.0993	0.0978	J	ug/L		99	50 - 150	
Acenaphthylene	0.0993	0.0979	J	ug/L		99	50 - 150	
Acetochlor	0.0993	0.121		ug/L		122	50 - 150	
Alachlor	0.0496	0.0584		ug/L		118	50 - 150	
alpha-BHC	0.0993	0.109		ug/L		110	50 - 150	
alpha-Chlordane	0.0248	<0.029		ug/L		111	50 - 150	
Anthracene	0.0199	0.0220		ug/L		111	50 - 150	
Atrazine	0.0496	0.0566		ug/L		114	50 - 150	
Benz(a)anthracene	0.0496	0.0561		ug/L		113	50 - 150	
Benzo[a]pyrene	0.0199	0.0214		ug/L		108	50 - 150	
Benzo[b]fluoranthene	0.0199	0.0226		ug/L		114	50 - 150	
Benzo[g,h,i]perylene	0.0496	0.0551		ug/L		111	50 - 150	
Benzo[k]fluoranthene	0.0199	0.0252		ug/L		127	50 - 150	
beta-BHC	0.0993	0.114		ug/L		115	50 - 150	
Bis(2-ethylhexyl) phthalate	0.596	0.594	J	ug/L		100	50 - 150	
Bromacil	0.0993	0.125		ug/L		126	50 - 150	
Butachlor	0.0496	0.0626		ug/L		126	50 - 150	
Butylbenzylphthalate	0.496	0.546		ug/L		110	50 - 150	
Chlorobenzilate	0.0993	0.113		ug/L		114	50 - 150	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: MRL 380-114562/20-A

Matrix: Water

Analysis Batch: 114803

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114562

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
Chloroneb	0.0993	0.0893	J	ug/L		90	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0993	0.119		ug/L		120	50 - 150
Chlorpyrifos	0.0496	0.0581		ug/L		117	50 - 150
Chrysene	0.0199	0.0228		ug/L		115	50 - 150
delta-BHC	0.0993	0.117		ug/L		117	50 - 150
Di(2-ethylhexyl)adipate	0.596	0.644		ug/L		108	50 - 150
Dibenz(a,h)anthracene	0.0496	0.0476	J	ug/L		96	50 - 150
Diclorvos (DDVP)	0.0496	0.0548		ug/L		110	50 - 150
Dieldrin	0.00993	0.0151	^3+	ug/L		152	50 - 150
Diethylphthalate	0.496	0.533		ug/L		107	50 - 150
Dimethylphthalate	0.496	0.527		ug/L		106	50 - 150
Di-n-butyl phthalate	0.496	0.565	J	ug/L		114	49 - 243
Di-n-octyl phthalate	0.0993	0.121		ug/L		122	50 - 150
Endosulfan I (Alpha)	0.0993	0.0988	J	ug/L		100	50 - 150
Endosulfan II (Beta)	0.0993	0.116		ug/L		117	50 - 150
Endosulfan sulfate	0.0993	0.111		ug/L		112	50 - 150
Endrin	0.00993	0.0124		ug/L		125	50 - 150
Endrin aldehyde	0.0993	0.131		ug/L		132	50 - 150
EPTC	0.0993	0.0962	J	ug/L		97	50 - 150
Fluoranthene	0.0993	0.109		ug/L		109	50 - 150
Fluorene	0.0496	0.0531		ug/L		107	50 - 150
gamma-Chlordane	0.0248	0.0262	J	ug/L		106	50 - 150
Heptachlor	0.00993	0.0144		ug/L		145	50 - 150
Heptachlor epoxide (isomer B)	0.00993	0.0126		ug/L		127	50 - 150
Hexachlorobenzene	0.0496	0.0483	J	ug/L		97	50 - 150
Hexachlorocyclopentadiene	0.0496	0.0461	J	ug/L		93	50 - 150
Indeno[1,2,3-cd]pyrene	0.0496	0.0587		ug/L		118	50 - 150
Isophorone	0.0993	0.120		ug/L		121	50 - 150
Lindane	0.00993	0.0160	^3+	ug/L		161	50 - 150
Malathion	0.0993	0.106		ug/L		107	50 - 150
Methoxychlor	0.0496	0.0606		ug/L		122	50 - 150
Metolachlor	0.0496	0.0636		ug/L		128	50 - 150
Molinate	0.0993	0.104		ug/L		104	50 - 150
Naphthalene	0.0993	0.107		ug/L		108	50 - 150
Parathion	0.0993	0.107		ug/L		108	50 - 150
Pendimethalin (Penoxaline)	0.0993	0.110		ug/L		111	50 - 150
Phenanthrene	0.0397	0.0459		ug/L		116	50 - 150
Propachlor	0.0496	0.0585		ug/L		118	50 - 150
Pyrene	0.0496	0.0552		ug/L		111	50 - 150
Simazine	0.0496	0.0626		ug/L		126	50 - 150
Terbacil	0.0993	0.130		ug/L		131	50 - 150
Terbutylazine	0.0993	0.114		ug/L		115	50 - 150
Thiobencarb	0.0993	0.108		ug/L		109	50 - 150
trans-Nonachlor	0.0248	<0.026		ug/L		100	50 - 150
Trifluralin	0.0993	0.114		ug/L		115	50 - 150

Surrogate	MRL	MRL	%Recovery	Qualifier	Limits
2-Nitro-m-xylene			98		70 - 130

QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: MRL 380-114562/20-A
Matrix: Water
Analysis Batch: 114803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114562

Surrogate	MRL %Recovery	MRL Qualifier	Limits
Perylene-d12	90		70 - 130
Triphenylphosphate	108		70 - 130

Lab Sample ID: 380-117693-E-1-A MS
Matrix: Water
Analysis Batch: 114803

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 114562

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.92	1.93		ug/L		100	70 - 130
2,4'-DDD	<0.097		1.92	2.08		ug/L		109	70 - 130
2,4'-DDE	<0.097		1.92	1.97		ug/L		103	70 - 130
2,4'-DDT	<0.097		1.92	1.85		ug/L		96	70 - 130
2,4-Dinitrotoluene	<0.097		1.92	2.31		ug/L		121	70 - 130
2,6-Dinitrotoluene	<0.097		1.92	2.24		ug/L		117	70 - 130
2-Methylnaphthalene	<0.097		1.92	1.93		ug/L		100	70 - 130
4,4'-DDD	<0.097		1.92	2.01		ug/L		105	70 - 130
4,4'-DDE	<0.097		1.92	1.93		ug/L		101	70 - 130
4,4'-DDT	<0.097		1.92	1.84		ug/L		96	70 - 130
Acenaphthene	<0.097		1.92	1.93		ug/L		101	70 - 130
Acenaphthylene	<0.097		1.92	2.03		ug/L		106	70 - 130
Acetochlor	<0.097		1.92	1.93		ug/L		101	70 - 130
Alachlor	<0.048		1.92	1.81		ug/L		95	70 - 130
alpha-BHC	<0.097		1.92	1.99		ug/L		104	70 - 130
alpha-Chlordane	<0.048		1.92	2.06		ug/L		108	70 - 130
Anthracene	<0.019		1.92	1.84		ug/L		96	70 - 130
Atrazine	<0.048		1.92	1.71		ug/L		89	70 - 130
Benz(a)anthracene	<0.048		1.92	1.95		ug/L		102	70 - 130
Benzo[a]pyrene	<0.019		1.92	2.21		ug/L		116	70 - 130
Benzo[b]fluoranthene	<0.019		1.92	2.08		ug/L		109	70 - 130
Benzo[g,h,i]perylene	<0.048		1.92	1.77		ug/L		92	70 - 130
Benzo[k]fluoranthene	<0.019		1.92	2.01		ug/L		105	70 - 130
beta-BHC	<0.097		1.92	2.05		ug/L		107	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.92	1.84		ug/L		96	70 - 130
Bromacil	<0.097		1.92	2.21		ug/L		115	70 - 130
Butachlor	<0.048		1.92	1.86		ug/L		97	70 - 130
Butylbenzylphthalate	<0.48		1.92	2.12		ug/L		111	70 - 130
Chlorobenzilate	<0.097		1.92	2.21		ug/L		115	70 - 130
Chloroneb	<0.097		1.92	2.03		ug/L		106	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.92	2.12		ug/L		111	70 - 130
Chlorpyrifos	<0.048		1.92	2.15		ug/L		112	70 - 130
Chrysene	<0.019		1.92	2.02		ug/L		105	70 - 130
delta-BHC	<0.097		1.92	2.08		ug/L		109	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.92	1.96		ug/L		98	70 - 130
Dibenz(a,h)anthracene	<0.048		1.92	1.99		ug/L		104	70 - 130
Diclorvos (DDVP)	<0.048		1.92	2.02		ug/L		105	70 - 130
Dieldrin	<0.0097	^3+	1.92	1.90		ug/L		99	70 - 130
Diethylphthalate	<0.48		1.92	2.16		ug/L		113	70 - 130
Dimethylphthalate	<0.48		1.92	2.09		ug/L		109	70 - 130

QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: 380-118418-B-1-A DU

Matrix: Water

Analysis Batch: 114803

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 114562

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
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
2-Methylnaphthalene	<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	<0.57		<0.58		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	<0.57		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.048		<0.048		ug/L		NC	20
Diclorvos (DDVP)	<0.048		<0.048		ug/L		NC	20
Dieldrin	<0.0096	^3+	<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-Chlordane	<0.048		<0.048		ug/L		NC	20
Heptachlor	<0.0096		<0.0097		ug/L		NC	20

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QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: 380-118418-B-1-A DU
Matrix: Water
Analysis Batch: 114803

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 114562

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
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
Lindane	<0.0096	^3+	<0.0097		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	<0.038		<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

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	99		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	110		70 - 130

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

Lab Sample ID: MB 570-493852/1-A
Matrix: Water
Analysis Batch: 497712

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 493852

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L			N/A	10/21/24 13:56	10/31/24 16:15	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	77		33 - 139	10/21/24 13:56	10/31/24 16:15	1
2-Fluorobiphenyl (Surr)	81		33 - 126	10/21/24 13:56	10/31/24 16:15	1
2-Fluorophenol (Surr)	62		12 - 120	10/21/24 13:56	10/31/24 16:15	1
Nitrobenzene-d5 (Surr)	89		36 - 120	10/21/24 13:56	10/31/24 16:15	1
Phenol-d6 (Surr)	39		10 - 120	10/21/24 13:56	10/31/24 16:15	1
p-Terphenyl-d14 (Surr)	88		47 - 131	10/21/24 13:56	10/31/24 16:15	1

QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: MB 570-493852/1-A
Matrix: Water
Analysis Batch: 495022

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 493852

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
2-Methylnaphthalene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Acenaphthene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Acenaphthylene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Anthracene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Benzo[a]anthracene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Benzo[a]pyrene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Chrysene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Fluoranthene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Fluorene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Naphthalene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Phenanthrene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1
Pyrene	<0.20		0.20	ug/L		10/21/24 13:56	10/24/24 11:52	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	102		28 - 127	10/21/24 13:56	10/24/24 11:52	1
2-Fluorobiphenyl (Surr)	50		31 - 120	10/21/24 13:56	10/24/24 11:52	1
2-Fluorophenol (Surr)	58		17 - 120	10/21/24 13:56	10/24/24 11:52	1
Nitrobenzene-d5 (Surr)	54		27 - 120	10/21/24 13:56	10/24/24 11:52	1
Phenol-d6 (Surr)	38		10 - 120	10/21/24 13:56	10/24/24 11:52	1
p-Terphenyl-d14 (Surr)	58		45 - 120	10/21/24 13:56	10/24/24 11:52	1

Lab Sample ID: LCS 570-493852/2-A
Matrix: Water
Analysis Batch: 495022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493852

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	20.0	14.0		ug/L		70	47 - 120
2-Methylnaphthalene	20.0	14.3		ug/L		71	43 - 120
Acenaphthene	20.0	15.9		ug/L		79	60 - 132
Acenaphthylene	20.0	16.8		ug/L		84	54 - 126
Anthracene	20.0	16.6		ug/L		83	43 - 120
Benzo[a]anthracene	20.0	16.8		ug/L		84	42 - 133
Benzo[a]pyrene	20.0	16.7		ug/L		84	32 - 148
Benzo[b]fluoranthene	20.0	16.1		ug/L		81	42 - 140
Benzo[g,h,i]perylene	20.0	16.0		ug/L		80	1 - 195
Benzo[k]fluoranthene	20.0	16.4		ug/L		82	25 - 146
Chrysene	20.0	15.6		ug/L		78	44 - 140
Dibenz(a,h)anthracene	20.0	16.3		ug/L		81	1 - 200
Fluoranthene	20.0	16.8		ug/L		84	43 - 121
Fluorene	20.0	16.9		ug/L		85	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	15.9		ug/L		79	1 - 151
Naphthalene	20.0	13.3		ug/L		66	36 - 120

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: LCS 570-493852/2-A

Matrix: Water

Analysis Batch: 495022

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 493852

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Phenanthrene	20.0	16.3		ug/L		82	65 - 120	
Pyrene	20.0	16.8		ug/L		84	70 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	83		28 - 127
2-Fluorobiphenyl (Surr)	48		31 - 120
2-Fluorophenol (Surr)	60		17 - 120
Nitrobenzene-d5 (Surr)	43		27 - 120
Phenol-d6 (Surr)	42		10 - 120
p-Terphenyl-d14 (Surr)	56		45 - 120

Lab Sample ID: LCSD 570-493852/3-A

Matrix: Water

Analysis Batch: 495022

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 493852

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits		RPD	Limit
1-Methylnaphthalene	20.0	15.3		ug/L		76	47 - 120		9	20
2-Methylnaphthalene	20.0	15.2		ug/L		76	43 - 120		6	20
Acenaphthene	20.0	17.6		ug/L		88	60 - 132		10	29
Acenaphthylene	20.0	18.7		ug/L		94	54 - 126		11	45
Anthracene	20.0	18.3		ug/L		92	43 - 120		10	40
Benzo[a]anthracene	20.0	18.7		ug/L		94	42 - 133		11	32
Benzo[a]pyrene	20.0	18.7		ug/L		93	32 - 148		11	43
Benzo[b]fluoranthene	20.0	17.9		ug/L		89	42 - 140		10	43
Benzo[g,h,i]perylene	20.0	18.0		ug/L		90	1 - 195		12	61
Benzo[k]fluoranthene	20.0	18.5		ug/L		92	25 - 146		12	38
Chrysene	20.0	17.6		ug/L		88	44 - 140		12	53
Dibenz(a,h)anthracene	20.0	18.1		ug/L		91	1 - 200		11	75
Fluoranthene	20.0	18.9		ug/L		94	43 - 121		12	40
Fluorene	20.0	18.8		ug/L		94	70 - 120		10	23
Indeno[1,2,3-cd]pyrene	20.0	17.9		ug/L		89	1 - 151		12	60
Naphthalene	20.0	14.5		ug/L		73	36 - 120		9	39
Phenanthrene	20.0	18.2		ug/L		91	65 - 120		11	24
Pyrene	20.0	18.7		ug/L		94	70 - 120		11	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	93		28 - 127
2-Fluorobiphenyl (Surr)	54		31 - 120
2-Fluorophenol (Surr)	64		17 - 120
Nitrobenzene-d5 (Surr)	47		27 - 120
Phenol-d6 (Surr)	47		10 - 120
p-Terphenyl-d14 (Surr)	62		45 - 120

QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: MB 570-495570/10
Matrix: Water
Analysis Batch: 495570

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			10/25/24 14:47	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		38 - 134				10/25/24 14:47	1

Lab Sample ID: LCS 570-495570/1008
Matrix: Water
Analysis Batch: 495570

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	386		ug/L		97	78 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	94		38 - 134				

Lab Sample ID: LCSD 570-495570/9
Matrix: Water
Analysis Batch: 495570

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	372		ug/L		93	78 - 120	4	10
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	95		38 - 134						

Lab Sample ID: MRL 570-495570/1003
Matrix: Water
Analysis Batch: 495570

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	10.0	10.4		ug/L		104	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
4-Bromofluorobenzene (Surr)	87		38 - 134				

Lab Sample ID: 380-118070-E-3 MS
Matrix: Water
Analysis Batch: 495570

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	384		ug/L		96	68 - 122
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	95		38 - 134						

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: 380-118070-E-3 MSD
Matrix: Water
Analysis Batch: 495570

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	375		ug/L		94	68 - 122	2	18
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	95		38 - 134								

Lab Sample ID: 380-119032-B-3 MS
Matrix: Water
Analysis Batch: 495570

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	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	397		ug/L		99	68 - 122		
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	91		38 - 134								

Lab Sample ID: 380-119032-B-3 MSD
Matrix: Water
Analysis Batch: 495570

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	391		ug/L		98	68 - 122	2	18
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	92		38 - 134								

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

Lab Sample ID: MB 570-493093/1-A
Matrix: Water
Analysis Batch: 493317

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 493093

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		10/18/24 11:27	10/19/24 07:50	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		10/18/24 11:27	10/19/24 07:50	1
C8-C18	<25		25	ug/L		10/18/24 11:27	10/19/24 07:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	94		60 - 130			10/18/24 11:27	10/19/24 07:50	1

Lab Sample ID: LCS 570-493093/2-A
Matrix: Water
Analysis Batch: 493317

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493093

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	1600	1410		ug/L		88	56 - 127		

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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

Lab Sample ID: LCS 570-493093/2-A
Matrix: Water
Analysis Batch: 493317

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493093

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

Lab Sample ID: LCSD 570-493093/3-A
Matrix: Water
Analysis Batch: 493317

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 493093

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
C10-C28	1600	1320		ug/L		82	56 - 127	7	23	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	93		60 - 130

Lab Sample ID: MRL 570-493093/4-A
Matrix: Water
Analysis Batch: 493317

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493093

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
C10-C28	0.0200	<0.020		mg/L		56	50 - 150			

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

Lab Sample ID: 380-118070-C-3-A MS
Matrix: Water
Analysis Batch: 493317

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 493093

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
C10-C28	<25		1630	1400		ug/L		86	70 - 130			

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	95		60 - 130

Lab Sample ID: 380-118070-C-3-B MSD
Matrix: Water
Analysis Batch: 493317

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 493093

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
C10-C28	<25		1630	1400		ug/L		86	70 - 130	0	20	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
<i>n-Octacosane (Surr)</i>	96		60 - 130

QC Association Summary

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

GC/MS Semi VOA

Prep Batch: 114562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-118198-1	Halawa Shaft Viewing Pool	Total/NA	Water	525.2	
MB 380-114562/19-A	Method Blank	Total/NA	Water	525.2	
LCS 380-114562/21-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-114562/22-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-114562/20-A	Lab Control Sample	Total/NA	Water	525.2	
380-117693-E-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-118418-B-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 114803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-118198-1	Halawa Shaft Viewing Pool	Total/NA	Water	525.2	114562
MB 380-114562/19-A	Method Blank	Total/NA	Water	525.2	114562
LCS 380-114562/21-A	Lab Control Sample	Total/NA	Water	525.2	114562
LCSD 380-114562/22-A	Lab Control Sample Dup	Total/NA	Water	525.2	114562
MRL 380-114562/20-A	Lab Control Sample	Total/NA	Water	525.2	114562
380-117693-E-1-A MS	Matrix Spike	Total/NA	Water	525.2	114562
380-118418-B-1-A DU	Duplicate	Total/NA	Water	525.2	114562

Prep Batch: 493852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-118198-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1	
MB 570-493852/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-493852/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-493852/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

Analysis Batch: 495022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-493852/1-A	Method Blank	Total/NA	Water	625.1 SIM	493852
LCS 570-493852/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	493852
LCSD 570-493852/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	493852

Analysis Batch: 497252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-118198-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1 SIM	493852

Analysis Batch: 497712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-118198-1	Halawa Shaft Viewing Pool	Total/NA	Water	625.1	493852
MB 570-493852/1-A	Method Blank	Total/NA	Water	625.1	493852

GC VOA

Analysis Batch: 495570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-118198-1	Halawa Shaft Viewing Pool	Total/NA	Water	8015B GRO LL	
380-118198-2	FB: Halawa Shaft Viewing Pool	Total/NA	Water	8015B GRO LL	
MB 570-495570/10	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-495570/1008	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-495570/9	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-495570/1003	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-118070-E-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	

QC Association Summary

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

Job ID: 380-118198-1
 SDG: RUSH Weekly Red Hill

GC VOA (Continued)

Analysis Batch: 495570 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-118070-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	
380-119032-B-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-119032-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 493093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-118198-1	Halawa Shaft Viewing Pool	Total/NA	Water	3510C	
MB 570-493093/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-493093/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-493093/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-493093/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-118070-C-3-A MS	Matrix Spike	Total/NA	Water	3510C	
380-118070-C-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 493317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-118198-1	Halawa Shaft Viewing Pool	Total/NA	Water	8015B	493093
MB 570-493093/1-A	Method Blank	Total/NA	Water	8015B	493093
LCS 570-493093/2-A	Lab Control Sample	Total/NA	Water	8015B	493093
LCSD 570-493093/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	493093
MRL 570-493093/4-A	Lab Control Sample	Total/NA	Water	8015B	493093
380-118070-C-3-A MS	Matrix Spike	Total/NA	Water	8015B	493093
380-118070-C-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	493093



Lab Chronicle

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

Job ID: 380-118198-1
 SDG: RUSH Weekly Red Hill

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-118198-1

Date Collected: 10/15/24 11:00

Matrix: Water

Date Received: 10/17/24 10:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			114562	OTM3	EA POM	10/21/24 09:14
Total/NA	Analysis	525.2		1	114803	Q8LA	EA POM	10/22/24 16:43
Total/NA	Prep	625.1			493852	OAJ3	EET CAL 4	10/22/24 11:56
Total/NA	Analysis	625.1		1	497712	CG	EET CAL 4	10/31/24 16:38
Total/NA	Prep	625.1			493852	OAJ3	EET CAL 4	10/22/24 11:56
Total/NA	Analysis	625.1 SIM		1	497252	PQS1	EET CAL 4	10/30/24 11:01
Total/NA	Analysis	8015B GRO LL		1	495570	A9VE	EET CAL 4	10/25/24 17:44
Total/NA	Prep	3510C			493093	H6FE	EET CAL 4	10/18/24 11:27
Total/NA	Analysis	8015B		1	493317	E5RH	EET CAL 4	10/19/24 11:19

Client Sample ID: FB: Halawa Shaft Viewing Pool

Lab Sample ID: 380-118198-2

Date Collected: 10/15/24 11:00

Matrix: Water

Date Received: 10/17/24 10:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	495570	A9VE	EET CAL 4	10/25/24 23:21

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: 380-118198-1
 SDG: RUSH Weekly Red Hill

Laboratory: Eurofins Eaton Analytical Pomona

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

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

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

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

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-15-24
Arkansas DEQ	State	88-0161	07-02-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-24
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-25

Accreditation/Certification Summary

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

Laboratory: Eurofins Calscience (Continued)

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

Authority	Program	Identification Number	Expiration Date
Nevada	State	CA00111	07-31-25
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	12-31-24

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Method Summary

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

Job ID: 380-118198-1
SDG: RUSH Weekly Red Hill

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: 380-118198-1
SDG: RUSH Weekly Red Hill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-118198-1	Halawa Shaft Viewing Pool	Water	10/15/24 11:00	10/17/24 10:17
380-118198-2	FB: Halawa Shaft Viewing Pool	Water	10/15/24 11:00	10/17/24 10:17

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Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-118198-1
SDG Number: RUSH Weekly Red Hill

Login Number: 118198

List Number: 1

Creator: Gerfen, Chris

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	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").	N/A	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-118198-1
SDG Number: RUSH Weekly Red Hill

Login Number: 118198

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 10/17/24 05:47 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ 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	1.9
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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

