

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
Weekly
RUSH Weekly Red Hill

JOB NUMBER

380-109681-1

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: 380-109681-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
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: 380-109681-1

Job ID: 380-109681-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-109681-1

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 8/21/2024 9:51 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.5°C, 2.4°C, 2.6°C and 3.4°C.

GC/MS Semi VOA

Method 625.1_SIM: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-474283 and analytical batch 570-476195 recovered outside control limits for multiple compounds. A re-prep/re-ran was performed and the LCS/LCSD failed low on 2nd attempt. The sample HT expired therefore, no re-extraction. The data excluded due to this QC failure.

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

Gasoline Range Organics

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

Diesel Range Organics

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

Detection Summary

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

Job ID: 380-109681-1
SDG: Weekly

Client Sample ID: KA'AMILO WELLS
PWSID Number: HI0000331

Lab Sample ID: 380-109681-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.027		0.0097	ug/L	1		525.2	Total/NA

Client Sample ID: TB: KA'AMILO WELLS

Lab Sample ID: 380-109681-2

No Detections.

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

This Detection Summary does not include radiochemical test results.

Client Sample Results

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

Job ID: 380-109681-1
 SDG: Weekly

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-109681-1

Date Collected: 08/19/24 11:34

Matrix: Drinking Water

Date Received: 08/21/24 09:51

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
2,4'-DDD	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
2,4'-DDE	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
2,4'-DDT	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
2-Methylnaphthalene	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
4,4'-DDD	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
4,4'-DDE	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
4,4'-DDT	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Acenaphthene	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Acenaphthylene	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Acetochlor	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Alachlor	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
alpha-BHC	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
alpha-Chlordane	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Anthracene	<0.019		0.019	ug/L		08/22/24 09:24	08/23/24 15:34	1
Atrazine	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Benz(a)anthracene	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Benzo[a]pyrene	<0.019		0.019	ug/L		08/22/24 09:24	08/23/24 15:34	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		08/22/24 09:24	08/23/24 15:34	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		08/22/24 09:24	08/23/24 15:34	1
beta-BHC	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		08/22/24 09:24	08/23/24 15:34	1
Bromacil	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Butachlor	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Butylbenzylphthalate	<0.49		0.49	ug/L		08/22/24 09:24	08/23/24 15:34	1
Chlorobenzilate	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Chloroneb	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Chlorpyrifos	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Chrysene	<0.019		0.019	ug/L		08/22/24 09:24	08/23/24 15:34	1
delta-BHC	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		08/22/24 09:24	08/23/24 15:34	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Dieldrin	0.027		0.0097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Diethylphthalate	<0.49		0.49	ug/L		08/22/24 09:24	08/23/24 15:34	1
Dimethylphthalate	<0.49	^3+	0.49	ug/L		08/22/24 09:24	08/23/24 15:34	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		08/22/24 09:24	08/23/24 15:34	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Endosulfan sulfate	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Endrin	<0.0097		0.0097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Endrin aldehyde	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
EPTC	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Fluoranthene	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1

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Client Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-109681-1

Date Collected: 08/19/24 11:34

Matrix: Drinking Water

Date Received: 08/21/24 09:51

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
gamma-Chlordane	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Heptachlor	<0.0097		0.0097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Hexachlorobenzene	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Isophorone	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Lindane	<0.0097		0.0097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Malathion	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Methoxychlor	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Metolachlor	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Molinate	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Naphthalene	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Parathion	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Phenanthrene	<0.039		0.039	ug/L		08/22/24 09:24	08/23/24 15:34	1
Propachlor	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Pyrene	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Simazine	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Terbacil	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Terbutylazine	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Thiobencarb	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		08/22/24 09:24	08/23/24 15:34	1
trans-Nonachlor	<0.049		0.049	ug/L		08/22/24 09:24	08/23/24 15:34	1
Trifluralin	<0.097		0.097	ug/L		08/22/24 09:24	08/23/24 15:34	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	08/22/24 09:24	08/23/24 15:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	95		70 - 130	08/22/24 09:24	08/23/24 15:34	1
Perylene-d12	99		70 - 130	08/22/24 09:24	08/23/24 15:34	1
Triphenylphosphate	105		70 - 130	08/22/24 09:24	08/23/24 15:34	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			08/28/24 01:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		38 - 134		08/28/24 01:10	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		08/26/24 14:51	08/31/24 19:40	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		08/26/24 14:51	08/31/24 19:40	1
C8-C18	<25		25	ug/L		08/26/24 14:51	08/31/24 19:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	106		60 - 130	08/26/24 14:51	08/31/24 19:40	1

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Client Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

Client Sample ID: TB: KA'AMILO WELLS

Lab Sample ID: 380-109681-2

Date Collected: 08/19/24 11:34

Matrix: Water

Date Received: 08/21/24 09:51

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			08/27/24 21:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		38 - 134				08/27/24 21:18	1

Action Limit Summary

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

Job ID: 380-109681-1
 SDG: Weekly

Client Sample ID: KA'AMILO WELLS
PWSID Number: HI0000331

Lab Sample ID: 380-109681-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA

Surrogate Summary

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

Job ID: 380-109681-1
SDG: Weekly

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

Matrix: Drinking 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)
380-109681-1	KA'AMILO WELLS	95	99	105

Surrogate Legend
 2NMX = 2-Nitro-m-xylene
 PRY = Perylene-d12
 TPP = Triphenylphosphate

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)
380-109697-W-1-A MS	Matrix Spike	95	100	111
380-109709-W-1-A DU	Duplicate	95	98	107
LCS 380-104844/23-A	Lab Control Sample	94	99	109
LCSD 380-104844/24-A	Lab Control Sample Dup	95	99	113
MB 380-104844/21-A	Method Blank	94	95	108
MRL 380-104844/22-A	Lab Control Sample	95	94	106

Surrogate Legend
 2NMX = 2-Nitro-m-xylene
 PRY = Perylene-d12
 TPP = Triphenylphosphate

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB1 (38-134)
380-109681-1	KA'AMILO WELLS	82

Surrogate Legend
 BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB1 (38-134)
380-109664-B-3 MS	Matrix Spike	86
380-109664-B-3 MSD	Matrix Spike Duplicate	92
380-109681-2	TB: KA'AMILO WELLS	80
LCS 570-474932/1008	Lab Control Sample	88
LCSD 570-474932/9	Lab Control Sample Dup	93
MB 570-474932/11	Method Blank	90
MRL 570-474932/10	Lab Control Sample	90

Surrogate Legend
 BFB = 4-Bromofluorobenzene (Surr)

Surrogate Summary

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

Job ID: 380-109681-1
SDG: Weekly

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-109681-1	KA'AMILO WELLS	106

Surrogate Legend

OTCSN = n-Octacosane (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)
380-109664-C-3-A MS	Matrix Spike	116
380-109664-C-3-B MSD	Matrix Spike Duplicate	107
LCS 570-474553/2-A	Lab Control Sample	112
LCSD 570-474553/3-A	Lab Control Sample Dup	107
MB 570-474553/1-A	Method Blank	101
MRL 570-474553/4-A	Lab Control Sample	111

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-109681-1
 SDG: Weekly

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

Lab Sample ID: MB 380-104844/21-A
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 104844

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
2,4'-DDD	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
2,4'-DDE	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
2,4'-DDT	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
2,4-Dinitrotoluene	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
2,6-Dinitrotoluene	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
2-Methylnaphthalene	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
4,4'-DDD	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
4,4'-DDE	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
4,4'-DDT	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Acenaphthene	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Acenaphthylene	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Acetochlor	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Alachlor	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
alpha-BHC	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
alpha-Chlordane	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Anthracene	<0.020		0.020	ug/L		08/22/24 09:24	08/23/24 14:32	1
Atrazine	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Benz(a)anthracene	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Benzo[a]pyrene	<0.020		0.020	ug/L		08/22/24 09:24	08/23/24 14:32	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		08/22/24 09:24	08/23/24 14:32	1
Benzo[g,h,i]perylene	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		08/22/24 09:24	08/23/24 14:32	1
beta-BHC	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60	ug/L		08/22/24 09:24	08/23/24 14:32	1
Bromacil	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Butachlor	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Butylbenzylphthalate	<0.50		0.50	ug/L		08/22/24 09:24	08/23/24 14:32	1
Chlorobenzilate	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Chloroneb	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Chlorpyrifos	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Chrysene	<0.020		0.020	ug/L		08/22/24 09:24	08/23/24 14:32	1
delta-BHC	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Di(2-ethylhexyl)adipate	<0.60		0.60	ug/L		08/22/24 09:24	08/23/24 14:32	1
Dibenz(a,h)anthracene	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Diclorvos (DDVP)	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Dieldrin	<0.0099		0.0099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Diethylphthalate	<0.50		0.50	ug/L		08/22/24 09:24	08/23/24 14:32	1
Dimethylphthalate	<0.50		0.50	ug/L		08/22/24 09:24	08/23/24 14:32	1
Di-n-butyl phthalate	<0.99		0.99	ug/L		08/22/24 09:24	08/23/24 14:32	1
Di-n-octyl phthalate	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Endosulfan I (Alpha)	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Endosulfan II (Beta)	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Endosulfan sulfate	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Endrin	<0.0099		0.0099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Endrin aldehyde	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
EPTC	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Lab Sample ID: MB 380-104844/21-A
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 104844

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Fluorene	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
gamma-Chlordane	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Heptachlor	<0.0099		0.0099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Hexachlorobenzene	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Hexachlorocyclopentadiene	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Isophorone	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Lindane	<0.0099		0.0099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Malathion	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Methoxychlor	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Metolachlor	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Molinate	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Naphthalene	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Parathion	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Pendimethalin (Penoxaline)	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Phenanthrene	<0.040		0.040	ug/L		08/22/24 09:24	08/23/24 14:32	1
Propachlor	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Pyrene	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Simazine	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Terbacil	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Terbutylazine	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Thiobencarb	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		08/22/24 09:24	08/23/24 14:32	1
trans-Nonachlor	<0.050		0.050	ug/L		08/22/24 09:24	08/23/24 14:32	1
Trifluralin	<0.099		0.099	ug/L		08/22/24 09:24	08/23/24 14:32	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	08/22/24 09:24	08/23/24 14:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	94		70 - 130	08/22/24 09:24	08/23/24 14:32	1
Perylene-d12	95		70 - 130	08/22/24 09:24	08/23/24 14:32	1
Triphenylphosphate	108		70 - 130	08/22/24 09:24	08/23/24 14:32	1

Lab Sample ID: LCS 380-104844/23-A
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104844

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.98	1.91		ug/L		96	70 - 130
2,4'-DDD	1.98	2.09		ug/L		105	70 - 130
2,4'-DDE	1.98	2.02		ug/L		102	70 - 130
2,4'-DDT	1.98	1.90		ug/L		96	70 - 130
2,4-Dinitrotoluene	1.98	1.78		ug/L		90	70 - 130
2,6-Dinitrotoluene	1.98	1.81		ug/L		91	70 - 130
2-Methylnaphthalene	1.98	1.92		ug/L		97	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Lab Sample ID: LCS 380-104844/23-A
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104844

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.98	1.92		ug/L		97	70 - 130
4,4'-DDE	1.98	2.19		ug/L		110	70 - 130
4,4'-DDT	1.98	1.88		ug/L		95	70 - 130
Acenaphthene	1.98	1.92		ug/L		97	70 - 130
Acenaphthylene	1.98	2.00		ug/L		101	70 - 130
Acetochlor	1.98	2.09		ug/L		106	70 - 130
Alachlor	1.98	2.15		ug/L		108	70 - 130
alpha-BHC	1.98	1.99		ug/L		100	70 - 130
alpha-Chlordane	1.98	2.09		ug/L		105	70 - 130
Anthracene	1.98	1.77		ug/L		89	70 - 130
Atrazine	1.98	1.95		ug/L		99	70 - 130
Benz(a)anthracene	1.98	2.07		ug/L		104	70 - 130
Benzo[a]pyrene	1.98	1.92		ug/L		97	70 - 130
Benzo[b]fluoranthene	1.98	2.07		ug/L		104	70 - 130
Benzo[g,h,i]perylene	1.98	1.91		ug/L		96	70 - 130
Benzo[k]fluoranthene	1.98	2.22		ug/L		112	70 - 130
beta-BHC	1.98	2.01		ug/L		101	70 - 130
Bis(2-ethylhexyl) phthalate	1.98	1.90		ug/L		96	70 - 130
Bromacil	1.98	1.87		ug/L		94	70 - 130
Butachlor	1.98	2.01		ug/L		101	70 - 130
Butylbenzylphthalate	1.98	2.03		ug/L		103	70 - 130
Chlorobenzilate	1.98	1.82		ug/L		92	70 - 130
Chloroneb	1.98	1.93		ug/L		97	70 - 130
Chlorothalonil (Draconil, Bravo)	1.98	1.93		ug/L		97	70 - 130
Chlorpyrifos	1.98	1.95		ug/L		98	70 - 130
Chrysene	1.98	2.14		ug/L		108	70 - 130
delta-BHC	1.98	1.95		ug/L		98	70 - 130
Di(2-ethylhexyl)adipate	1.98	1.95		ug/L		98	70 - 130
Dibenz(a,h)anthracene	1.98	1.89		ug/L		95	70 - 130
Diclorvos (DDVP)	1.98	2.02		ug/L		102	70 - 130
Dieldrin	1.98	1.98		ug/L		100	70 - 130
Diethylphthalate	1.98	2.04		ug/L		103	70 - 130
Dimethylphthalate	1.98	2.00		ug/L		101	70 - 130
Di-n-butyl phthalate	3.97	3.92		ug/L		99	70 - 130
Di-n-octyl phthalate	1.98	1.90		ug/L		96	70 - 130
Endosulfan I (Alpha)	1.98	1.98		ug/L		100	70 - 130
Endosulfan II (Beta)	1.98	2.07		ug/L		104	70 - 130
Endosulfan sulfate	1.98	1.95		ug/L		98	70 - 130
Endrin	1.98	1.79		ug/L		90	70 - 130
Endrin aldehyde	1.98	1.80		ug/L		91	60 - 130
EPTC	1.98	2.01		ug/L		102	70 - 130
Fluoranthene	1.98	2.23		ug/L		113	70 - 130
Fluorene	1.98	2.02		ug/L		102	70 - 130
gamma-Chlordane	1.98	2.09		ug/L		105	70 - 130
Heptachlor	1.98	1.87		ug/L		94	70 - 130
Heptachlor epoxide (isomer B)	1.98	2.29		ug/L		115	70 - 130
Hexachlorobenzene	1.98	1.92		ug/L		97	70 - 130
Hexachlorocyclopentadiene	1.98	1.53		ug/L		77	70 - 130
Indeno[1,2,3-cd]pyrene	1.98	1.91		ug/L		96	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Lab Sample ID: LCS 380-104844/23-A
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104844

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isophorone	1.98	1.88		ug/L		95	70 - 130
Lindane	1.98	1.88		ug/L		95	70 - 130
Malathion	1.98	1.99		ug/L		100	70 - 130
Methoxychlor	1.98	1.96		ug/L		99	70 - 130
Metolachlor	1.98	2.18		ug/L		110	70 - 130
Molinate	1.98	2.04		ug/L		103	70 - 130
Naphthalene	1.98	1.83		ug/L		92	70 - 130
Parathion	1.98	1.99		ug/L		100	70 - 130
Pendimethalin (Penoxaline)	1.98	1.88		ug/L		95	70 - 130
Phenanthrene	1.98	1.95		ug/L		98	70 - 130
Propachlor	1.98	2.04		ug/L		103	70 - 130
Pyrene	1.98	2.01		ug/L		101	70 - 130
Simazine	1.98	1.91		ug/L		96	70 - 130
Terbacil	1.98	1.92		ug/L		97	70 - 130
Terbutylazine	1.98	1.93		ug/L		97	70 - 130
Thiobencarb	1.98	2.19		ug/L		110	70 - 130
trans-Nonachlor	1.98	2.09		ug/L		105	70 - 130
Trifluralin	1.98	1.83		ug/L		92	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	94		70 - 130
Perylene-d12	99		70 - 130
Triphenylphosphate	109		70 - 130

Lab Sample ID: LCSD 380-104844/24-A
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 104844

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.98	1.91		ug/L		96	70 - 130	0	20
2,4'-DDD	1.98	2.11		ug/L		106	70 - 130	1	20
2,4'-DDE	1.98	2.05		ug/L		104	70 - 130	1	20
2,4'-DDT	1.98	1.93		ug/L		97	70 - 130	1	20
2,4-Dinitrotoluene	1.98	1.93		ug/L		98	70 - 130	8	20
2,6-Dinitrotoluene	1.98	1.91		ug/L		96	70 - 130	5	20
2-Methylnaphthalene	1.98	1.92		ug/L		97	70 - 130	0	20
4,4'-DDD	1.98	1.94		ug/L		98	70 - 130	1	20
4,4'-DDE	1.98	2.22		ug/L		112	70 - 130	1	20
4,4'-DDT	1.98	1.90		ug/L		96	70 - 130	1	20
Acenaphthene	1.98	1.93		ug/L		97	70 - 130	1	20
Acenaphthylene	1.98	2.02		ug/L		102	70 - 130	1	20
Acetochlor	1.98	2.18		ug/L		110	70 - 130	4	20
Alachlor	1.98	2.21		ug/L		112	70 - 130	3	20
alpha-BHC	1.98	2.04		ug/L		103	70 - 130	3	20
alpha-Chlordane	1.98	2.13		ug/L		107	70 - 130	2	20
Anthracene	1.98	1.75		ug/L		88	70 - 130	1	20
Atrazine	1.98	2.00		ug/L		101	70 - 130	2	20
Benz(a)anthracene	1.98	2.07		ug/L		104	70 - 130	0	20

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-104844/24-A
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 104844

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Benzo[a]pyrene	1.98	1.88		ug/L		95	70 - 130	2	20	
Benzo[b]fluoranthene	1.98	2.01		ug/L		102	70 - 130	3	20	
Benzo[g,h,i]perylene	1.98	1.85		ug/L		93	70 - 130	3	20	
Benzo[k]fluoranthene	1.98	2.19		ug/L		110	70 - 130	2	20	
beta-BHC	1.98	2.05		ug/L		104	70 - 130	2	20	
Bis(2-ethylhexyl) phthalate	1.98	1.84		ug/L		93	70 - 130	3	20	
Bromacil	1.98	2.00		ug/L		101	70 - 130	6	20	
Butachlor	1.98	2.07		ug/L		104	70 - 130	3	20	
Butylbenzylphthalate	1.98	2.08		ug/L		105	70 - 130	2	20	
Chlorobenzilate	1.98	1.89		ug/L		95	70 - 130	4	20	
Chloroneb	1.98	1.95		ug/L		98	70 - 130	1	20	
Chlorothalonil (Draconil, Bravo)	1.98	2.23		ug/L		112	70 - 130	14	20	
Chlorpyrifos	1.98	1.97		ug/L		99	70 - 130	1	20	
Chrysene	1.98	2.07		ug/L		105	70 - 130	3	20	
delta-BHC	1.98	2.01		ug/L		102	70 - 130	3	20	
Di(2-ethylhexyl)adipate	1.98	1.97		ug/L		99	70 - 130	1	20	
Dibenz(a,h)anthracene	1.98	1.85		ug/L		93	70 - 130	2	20	
Diclorvos (DDVP)	1.98	2.09		ug/L		106	70 - 130	4	20	
Dieldrin	1.98	2.03		ug/L		102	70 - 130	2	20	
Diethylphthalate	1.98	2.09		ug/L		106	70 - 130	3	20	
Dimethylphthalate	1.98	2.04		ug/L		103	70 - 130	2	20	
Di-n-butyl phthalate	3.96	4.03		ug/L		102	70 - 130	3	20	
Di-n-octyl phthalate	1.98	1.80		ug/L		91	70 - 130	5	20	
Endosulfan I (Alpha)	1.98	2.02		ug/L		102	70 - 130	2	20	
Endosulfan II (Beta)	1.98	2.14		ug/L		108	70 - 130	3	20	
Endosulfan sulfate	1.98	1.98		ug/L		100	70 - 130	2	20	
Endrin	1.98	1.83		ug/L		92	70 - 130	2	20	
Endrin aldehyde	1.98	1.85		ug/L		93	60 - 130	3	20	
EPTC	1.98	2.05		ug/L		103	70 - 130	2	20	
Fluoranthene	1.98	2.25		ug/L		113	70 - 130	1	20	
Fluorene	1.98	2.04		ug/L		103	70 - 130	1	20	
gamma-Chlordane	1.98	2.13		ug/L		108	70 - 130	2	20	
Heptachlor	1.98	1.93		ug/L		97	70 - 130	3	20	
Heptachlor epoxide (isomer B)	1.98	2.33		ug/L		117	70 - 130	2	20	
Hexachlorobenzene	1.98	1.93		ug/L		97	70 - 130	0	20	
Hexachlorocyclopentadiene	1.98	1.54		ug/L		78	70 - 130	0	20	
Indeno[1,2,3-cd]pyrene	1.98	1.89		ug/L		95	70 - 130	1	20	
Isophorone	1.98	1.92		ug/L		97	70 - 130	2	20	
Lindane	1.98	1.91		ug/L		96	70 - 130	1	20	
Malathion	1.98	2.05		ug/L		103	70 - 130	3	20	
Methoxychlor	1.98	1.93		ug/L		97	70 - 130	2	20	
Metolachlor	1.98	2.25		ug/L		113	70 - 130	3	20	
Molinate	1.98	2.09		ug/L		106	70 - 130	2	20	
Naphthalene	1.98	1.83		ug/L		92	70 - 130	0	20	
Parathion	1.98	2.06		ug/L		104	70 - 130	4	20	
Pendimethalin (Penoxaline)	1.98	1.97		ug/L		99	70 - 130	4	20	
Phenanthrene	1.98	1.96		ug/L		99	70 - 130	1	20	
Propachlor	1.98	2.09		ug/L		105	70 - 130	2	20	
Pyrene	1.98	2.02		ug/L		102	70 - 130	0	20	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Lab Sample ID: LCSD 380-104844/24-A
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 104844

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Simazine	1.98	2.00		ug/L		101	70 - 130	4	20
Terbacil	1.98	2.09		ug/L		105	70 - 130	9	20
Terbuthylazine	1.98	1.98		ug/L		100	70 - 130	3	20
Thiobencarb	1.98	2.26		ug/L		114	70 - 130	3	20
trans-Nonachlor	1.98	2.12		ug/L		107	70 - 130	1	20
Trifluralin	1.98	1.91		ug/L		97	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Nitro-m-xylene	95		70 - 130
Perylene-d12	99		70 - 130
Triphenylphosphate	113		70 - 130

Lab Sample ID: MRL 380-104844/22-A
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104844

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0993	0.108		ug/L		108	50 - 150
2,4'-DDD	0.0993	0.0961	J	ug/L		97	50 - 150
2,4'-DDE	0.0993	0.107		ug/L		107	50 - 150
2,4'-DDT	0.0993	0.114		ug/L		115	50 - 150
2,4-Dinitrotoluene	0.0993	0.104		ug/L		105	50 - 150
2,6-Dinitrotoluene	0.0993	0.104		ug/L		105	50 - 150
2-Methylnaphthalene	0.0993	0.0991		ug/L		100	50 - 150
4,4'-DDD	0.0993	0.121		ug/L		122	50 - 150
4,4'-DDE	0.0993	0.105		ug/L		105	50 - 150
4,4'-DDT	0.0993	0.112		ug/L		113	50 - 150
Acenaphthene	0.0993	0.0982	J	ug/L		99	50 - 150
Acenaphthylene	0.0993	0.0975	J	ug/L		98	50 - 150
Acetochlor	0.0993	0.115		ug/L		116	50 - 150
Alachlor	0.0497	0.0522		ug/L		105	50 - 150
alpha-BHC	0.0993	0.116		ug/L		117	50 - 150
alpha-Chlordane	0.0248	0.0315	J	ug/L		127	50 - 150
Anthracene	0.0199	0.0197	J	ug/L		99	50 - 150
Atrazine	0.0497	0.0657		ug/L		132	50 - 150
Benz(a)anthracene	0.0497	0.0566		ug/L		114	50 - 150
Benzo[a]pyrene	0.0199	0.0161	J	ug/L		81	50 - 150
Benzo[b]fluoranthene	0.0199	0.0158	J	ug/L		80	50 - 150
Benzo[g,h,i]perylene	0.0497	0.0431	J	ug/L		87	50 - 150
Benzo[k]fluoranthene	0.0199	<0.017		ug/L		82	50 - 150
beta-BHC	0.0993	0.122		ug/L		122	50 - 150
Bis(2-ethylhexyl) phthalate	0.596	0.527	J	ug/L		88	50 - 150
Bromacil	0.0993	0.112		ug/L		112	50 - 150
Butachlor	0.0497	0.0685		ug/L		138	50 - 150
Butylbenzylphthalate	0.497	0.521		ug/L		105	50 - 150
Chlorobenzilate	0.0993	0.0709	J	ug/L		71	50 - 150
Chloroneb	0.0993	0.106		ug/L		107	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0993	0.104		ug/L		104	50 - 150

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Lab Sample ID: MRL 380-104844/22-A
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104844

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorpyrifos	0.0497	0.0739		ug/L		149	50 - 150
Chrysene	0.0199	0.0228		ug/L		115	50 - 150
delta-BHC	0.0993	0.113		ug/L		113	50 - 150
Di(2-ethylhexyl)adipate	0.596	0.604		ug/L		101	50 - 150
Dibenz(a,h)anthracene	0.0497	0.0410	J	ug/L		83	50 - 150
Diclorvos (DDVP)	0.0497	0.0539		ug/L		109	50 - 150
Dieldrin	0.00993	0.0121		ug/L		122	50 - 150
Diethylphthalate	0.497	0.547		ug/L		110	50 - 150
Dimethylphthalate	0.497	0.768	^3+	ug/L		155	50 - 150
Di-n-butyl phthalate	0.497	0.550	J	ug/L		111	49 - 243
Di-n-octyl phthalate	0.0993	0.114		ug/L		115	50 - 150
Endosulfan I (Alpha)	0.0993	0.103		ug/L		103	50 - 150
Endosulfan II (Beta)	0.0993	0.116		ug/L		117	50 - 150
Endosulfan sulfate	0.0993	0.103		ug/L		104	50 - 150
Endrin	0.00993	0.0129		ug/L		130	50 - 150
Endrin aldehyde	0.0993	0.104		ug/L		104	50 - 150
EPTC	0.0993	0.0968	J	ug/L		97	50 - 150
Fluoranthene	0.0993	0.112		ug/L		113	50 - 150
Fluorene	0.0497	<0.050		ug/L		99	50 - 150
gamma-Chlordane	0.0248	0.0312	J	ug/L		125	50 - 150
Heptachlor	0.00993	0.00946	J	ug/L		95	50 - 150
Heptachlor epoxide (isomer B)	0.00993	0.0125		ug/L		126	50 - 150
Hexachlorobenzene	0.0497	0.0454	J	ug/L		91	50 - 150
Hexachlorocyclopentadiene	0.0497	<0.038		ug/L		54	50 - 150
Indeno[1,2,3-cd]pyrene	0.0497	0.0320	J	ug/L		65	50 - 150
Isophorone	0.0993	0.111		ug/L		112	50 - 150
Lindane	0.00993	0.0138		ug/L		139	50 - 150
Malathion	0.0993	0.113		ug/L		114	50 - 150
Methoxychlor	0.0497	0.0702		ug/L		141	50 - 150
Metolachlor	0.0497	0.0583		ug/L		117	50 - 150
Molinate	0.0993	0.108		ug/L		109	50 - 150
Naphthalene	0.0993	0.100		ug/L		101	50 - 150
Parathion	0.0993	0.0996		ug/L		100	50 - 150
Pendimethalin (Penoxaline)	0.0993	0.106		ug/L		107	50 - 150
Phenanthrene	0.0397	0.0449		ug/L		113	50 - 150
Propachlor	0.0497	0.0524		ug/L		106	50 - 150
Pyrene	0.0497	0.0670		ug/L		135	50 - 150
Simazine	0.0497	0.0676		ug/L		136	50 - 150
Terbacil	0.0993	0.108		ug/L		109	50 - 150
Terbutylazine	0.0993	0.115		ug/L		116	50 - 150
Thiobencarb	0.0993	0.114		ug/L		115	50 - 150
trans-Nonachlor	0.0248	0.0308	J	ug/L		124	50 - 150
Trifluralin	0.0993	0.106		ug/L		107	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
2-Nitro-m-xylene	95		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	106		70 - 130

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Lab Sample ID: 380-109697-W-1-A MS
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 104844

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	<0.096		1.94	1.88		ug/L		97	70 - 130
2,4'-DDD	<0.096		1.94	2.05		ug/L		106	70 - 130
2,4'-DDE	<0.096		1.94	1.97		ug/L		102	70 - 130
2,4'-DDT	<0.096		1.94	1.82		ug/L		94	70 - 130
2,4-Dinitrotoluene	<0.096		1.94	1.93		ug/L		100	70 - 130
2,6-Dinitrotoluene	<0.096		1.94	1.91		ug/L		99	70 - 130
2-Methylnaphthalene	<0.096		1.94	1.90		ug/L		98	70 - 130
4,4'-DDD	<0.096		1.94	1.88		ug/L		97	70 - 130
4,4'-DDE	<0.096		1.94	2.11		ug/L		109	70 - 130
4,4'-DDT	<0.096		1.94	1.79		ug/L		92	70 - 130
Acenaphthene	<0.096		1.94	1.89		ug/L		98	70 - 130
Acenaphthylene	<0.096		1.94	2.00		ug/L		103	70 - 130
Acetochlor	<0.096		1.94	2.07		ug/L		107	70 - 130
Alachlor	<0.048		1.94	2.13		ug/L		110	70 - 130
alpha-BHC	<0.096		1.94	2.01		ug/L		104	70 - 130
alpha-Chlordane	<0.048		1.94	2.05		ug/L		106	70 - 130
Anthracene	<0.019		1.94	1.45		ug/L		75	70 - 130
Atrazine	<0.048		1.94	1.96		ug/L		102	70 - 130
Benz(a)anthracene	<0.048		1.94	1.97		ug/L		102	70 - 130
Benzo[a]pyrene	<0.019		1.94	1.75		ug/L		90	70 - 130
Benzo[b]fluoranthene	<0.019		1.94	2.00		ug/L		103	70 - 130
Benzo[g,h,i]perylene	<0.048		1.94	1.79		ug/L		92	70 - 130
Benzo[k]fluoranthene	<0.019		1.94	2.14		ug/L		111	70 - 130
beta-BHC	<0.096		1.94	1.99		ug/L		103	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.94	1.69		ug/L		87	70 - 130
Bromacil	<0.096		1.94	1.98		ug/L		102	70 - 130
Butachlor	<0.048		1.94	1.99		ug/L		103	70 - 130
Butylbenzylphthalate	<0.48		1.94	1.98		ug/L		103	70 - 130
Chlorobenzilate	<0.096		1.94	1.93		ug/L		100	70 - 130
Chloroneb	<0.096		1.94	1.91		ug/L		98	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.096		1.94	2.37		ug/L		122	70 - 130
Chlorpyrifos	<0.048		1.94	1.91		ug/L		99	70 - 130
Chrysene	<0.019		1.94	2.10		ug/L		108	70 - 130
delta-BHC	<0.096		1.94	1.94		ug/L		100	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.94	1.79		ug/L		92	70 - 130
Dibenz(a,h)anthracene	<0.048		1.94	1.70		ug/L		88	70 - 130
Diclorvos (DDVP)	<0.048		1.94	2.00		ug/L		103	70 - 130
Dieldrin	<0.0096		1.94	1.93		ug/L		100	70 - 130
Diethylphthalate	<0.48		1.94	2.05		ug/L		106	70 - 130
Dimethylphthalate	<0.48	^3+	1.94	2.00		ug/L		103	70 - 130
Di-n-butyl phthalate	<0.96		3.87	3.90		ug/L		101	70 - 130
Di-n-octyl phthalate	<0.096		1.94	1.63		ug/L		84	70 - 130
Endosulfan I (Alpha)	<0.096		1.94	1.93		ug/L		100	70 - 130
Endosulfan II (Beta)	<0.096		1.94	2.04		ug/L		106	70 - 130
Endosulfan sulfate	<0.096		1.94	1.91		ug/L		99	70 - 130
Endrin	<0.0096		1.94	1.72		ug/L		89	70 - 130
Endrin aldehyde	<0.096		1.94	1.75		ug/L		91	60 - 130
EPTC	<0.096		1.94	2.00		ug/L		104	70 - 130

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Lab Sample ID: 380-109697-W-1-A MS

Matrix: Water

Analysis Batch: 105062

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 104844

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Fluoranthene	<0.096		1.94	2.21		ug/L		114	70 - 130
Fluorene	<0.048		1.94	2.01		ug/L		104	70 - 130
gamma-Chlordane	<0.048		1.94	2.03		ug/L		105	70 - 130
Heptachlor	<0.0096		1.94	1.84		ug/L		95	70 - 130
Heptachlor epoxide (isomer B)	<0.0096		1.94	2.28		ug/L		118	70 - 130
Hexachlorobenzene	<0.048		1.94	1.92		ug/L		99	70 - 130
Hexachlorocyclopentadiene	<0.048		1.94	1.55		ug/L		80	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.94	1.83		ug/L		95	70 - 130
Isophorone	<0.096		1.94	1.88		ug/L		97	70 - 130
Lindane	<0.0096		1.94	1.85		ug/L		96	70 - 130
Malathion	<0.096		1.94	1.99		ug/L		103	70 - 130
Methoxychlor	<0.048		1.94	1.96		ug/L		102	70 - 130
Metolachlor	<0.048		1.94	2.17		ug/L		112	70 - 130
Molinate	<0.096		1.94	2.06		ug/L		106	70 - 130
Naphthalene	<0.096		1.94	1.80		ug/L		93	70 - 130
Parathion	<0.096		1.94	1.98		ug/L		102	70 - 130
Pendimethalin (Penoxaline)	<0.096		1.94	1.92		ug/L		99	70 - 130
Phenanthrene	<0.039		1.94	1.90		ug/L		98	70 - 130
Propachlor	<0.048		1.94	2.06		ug/L		106	70 - 130
Pyrene	<0.048		1.94	1.96		ug/L		101	70 - 130
Simazine	<0.048		1.94	1.98		ug/L		101	70 - 130
Terbacil	<0.096		1.94	2.06		ug/L		106	70 - 130
Terbutylazine	<0.096		1.94	1.93		ug/L		100	70 - 130
Thiobencarb	<0.096		1.94	2.17		ug/L		112	70 - 130
trans-Nonachlor	<0.048		1.94	2.03		ug/L		105	70 - 130
Trifluralin	<0.096		1.94	1.87		ug/L		97	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	95		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	111		70 - 130

Lab Sample ID: 380-109709-W-1-A DU

Matrix: Water

Analysis Batch: 105062

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 104844

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
1-Methylnaphthalene			<0.096		ug/L				20
2,4'-DDD			<0.096		ug/L				20
2,4'-DDE			<0.096		ug/L				20
2,4'-DDT			<0.096		ug/L				20
2,4-Dinitrotoluene	<0.096		<0.096		ug/L		NC		20
2,6-Dinitrotoluene			<0.096		ug/L				20
2-Methylnaphthalene			<0.096		ug/L				20
4,4'-DDD			<0.096		ug/L				20
4,4'-DDE			<0.096		ug/L				20
4,4'-DDT			<0.096		ug/L				20
Acenaphthene			<0.096		ug/L				20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-109681-1
 SDG: Weekly

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

Lab Sample ID: 380-109709-W-1-A DU
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 104844

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Acenaphthylene	<0.096		<0.096		ug/L		NC	20
Acetochlor			<0.096		ug/L			20
Alachlor	<0.048		<0.048		ug/L		NC	20
alpha-BHC			<0.096		ug/L			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		ug/L			20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Bromacil	<0.096		<0.096		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		ug/L			20
Chloroneb			<0.096		ug/L			20
Chlorothalonil (Draconil, Bravo)			<0.096		ug/L			20
Chlorpyrifos			<0.048		ug/L			20
Chrysene	0.050		0.0453		ug/L		10	20
delta-BHC			<0.096		ug/L			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
Diclorvos (DDVP)			<0.048		ug/L			20
Dieldrin	<0.0096		<0.0096		ug/L		NC	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20
Dimethylphthalate	<0.48	^3+	<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.96		<0.96		ug/L		NC	20
Di-n-octyl phthalate			<0.096		ug/L			20
Endosulfan I (Alpha)			<0.096		ug/L			20
Endosulfan II (Beta)			<0.096		ug/L			20
Endosulfan sulfate			<0.096		ug/L			20
Endrin	<0.0096		<0.0096		ug/L		NC	20
Endrin aldehyde			<0.096		ug/L			20
EPTC			<0.096		ug/L			20
Fluoranthene	0.22		0.171	F5	ug/L		25	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-Chlordane	<0.048		<0.048		ug/L		NC	20
Heptachlor	<0.0096		<0.0096		ug/L		NC	20
Heptachlor epoxide (isomer B)	<0.0096		<0.0096		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		<0.096		ug/L		NC	20
Lindane	<0.0096		<0.0096		ug/L		NC	20
Malathion			<0.096		ug/L			20
Methoxychlor	<0.048		<0.048		ug/L		NC	20

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Lab Sample ID: 380-109709-W-1-A DU
Matrix: Water
Analysis Batch: 105062

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 104844

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.096		<0.096		ug/L		NC	20
Naphthalene			<0.096		ug/L			20
Parathion			<0.096		ug/L			20
Pendimethalin (Penoxaline)			<0.096		ug/L			20
Phenanthrene	0.23		0.174	F3	ug/L		26	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		ug/L			20
Terbuthylazine			<0.096		ug/L			20
Thiobencarb	<0.096		<0.096		ug/L		NC	20
Total Permethrin (mixed isomers)	Missing Input		<0.19		ug/L		NC	20
trans-Nonachlor	<0.048		<0.048		ug/L		NC	20
Trifluralin	<0.096		<0.096		ug/L		NC	20

Surrogate	%Recovery	DU Qualifier	Limits
2-Nitro-m-xylene	95		70 - 130
Perylene-d12	98		70 - 130
Triphenylphosphate	107		70 - 130

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

Lab Sample ID: MB 570-474932/11
Matrix: Water
Analysis Batch: 474932

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			08/27/24 18:00	1

Surrogate	%Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		38 - 134		08/27/24 18:00	1

Lab Sample ID: LCS 570-474932/1008
Matrix: Water
Analysis Batch: 474932

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	417		ug/L		104	78 - 120

Surrogate	%Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		38 - 134

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Lab Sample ID: LCSD 570-474932/9
Matrix: Water
Analysis Batch: 474932

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	404		ug/L		101	78 - 120	3	10
Surrogate		%Recovery	LCSD Qualifier						Limits
4-Bromofluorobenzene (Surr)		93							38 - 134

Lab Sample ID: MRL 570-474932/10
Matrix: Water
Analysis Batch: 474932

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	10.5		ug/L		105	50 - 150
Surrogate		%Recovery	MRL Qualifier				Limits
4-Bromofluorobenzene (Surr)		90					38 - 134

Lab Sample ID: 380-109664-B-3 MS
Matrix: Water
Analysis Batch: 474932

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	391		ug/L		98	68 - 122
Surrogate		%Recovery		MS Qualifier					Limits
4-Bromofluorobenzene (Surr)		86							38 - 134

Lab Sample ID: 380-109664-B-3 MSD
Matrix: Water
Analysis Batch: 474932

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	385		ug/L		96	68 - 122	2	18
Surrogate		%Recovery		MSD Qualifier					Limits		Limits
4-Bromofluorobenzene (Surr)		92							38 - 134		

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

Lab Sample ID: MB 570-474553/1-A
Matrix: Water
Analysis Batch: 476494

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474553

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		08/26/24 14:51	08/31/24 16:32	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		08/26/24 14:51	08/31/24 16:32	1
C8-C18	<25		25	ug/L		08/26/24 14:51	08/31/24 16:32	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	101		60 - 130	08/26/24 14:51	08/31/24 16:32	1

Lab Sample ID: LCS 570-474553/2-A
Matrix: Water
Analysis Batch: 476494

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474553

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1420		ug/L		89	56 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>n</i> -Octacosane (Surr)	112		60 - 130

Lab Sample ID: LCSD 570-474553/3-A
Matrix: Water
Analysis Batch: 476494

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 474553

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
C10-C28	1600	1370		ug/L		86	56 - 127	3 23

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

Lab Sample ID: MRL 570-474553/4-A
Matrix: Water
Analysis Batch: 476494

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474553

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	0.0200	0.0261		mg/L		131	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
<i>n</i> -Octacosane (Surr)	111		60 - 130

Lab Sample ID: 380-109664-C-3-A MS
Matrix: Water
Analysis Batch: 476494

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 474553

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	120		1700	1680		ug/L		92	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
<i>n</i> -Octacosane (Surr)	116		60 - 130

Lab Sample ID: 380-109664-C-3-B MSD
Matrix: Water
Analysis Batch: 476494

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 474553

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
C10-C28	120		1680	1560		ug/L		86	70 - 130	8 20

QC Sample Results

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

Job ID: 380-109681-1
SDG: Weekly

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

Lab Sample ID: 380-109664-C-3-B MSD
Matrix: Water
Analysis Batch: 476494

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 474553

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

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QC Association Summary

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

Job ID: 380-109681-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 104844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-109681-1	KA'AMILO WELLS	Total/NA	Drinking Water	525.2	
MB 380-104844/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-104844/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-104844/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-104844/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-109697-W-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-109709-W-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 105062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-109681-1	KA'AMILO WELLS	Total/NA	Drinking Water	525.2	104844
MB 380-104844/21-A	Method Blank	Total/NA	Water	525.2	104844
LCS 380-104844/23-A	Lab Control Sample	Total/NA	Water	525.2	104844
LCSD 380-104844/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	104844
MRL 380-104844/22-A	Lab Control Sample	Total/NA	Water	525.2	104844
380-109697-W-1-A MS	Matrix Spike	Total/NA	Water	525.2	104844
380-109709-W-1-A DU	Duplicate	Total/NA	Water	525.2	104844

GC VOA

Analysis Batch: 474932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-109681-1	KA'AMILO WELLS	Total/NA	Drinking Water	8015B GRO LL	
380-109681-2	TB: KA'AMILO WELLS	Total/NA	Water	8015B GRO LL	
MB 570-474932/11	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-474932/1008	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-474932/9	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-474932/10	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-109664-B-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-109664-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 474553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-109681-1	KA'AMILO WELLS	Total/NA	Drinking Water	3510C	
MB 570-474553/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-474553/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-474553/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-474553/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-109664-C-3-A MS	Matrix Spike	Total/NA	Water	3510C	
380-109664-C-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 476494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-109681-1	KA'AMILO WELLS	Total/NA	Drinking Water	8015B	474553
MB 570-474553/1-A	Method Blank	Total/NA	Water	8015B	474553
LCS 570-474553/2-A	Lab Control Sample	Total/NA	Water	8015B	474553
LCSD 570-474553/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	474553
MRL 570-474553/4-A	Lab Control Sample	Total/NA	Water	8015B	474553
380-109664-C-3-A MS	Matrix Spike	Total/NA	Water	8015B	474553
380-109664-C-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	474553

Eurofins Eaton Analytical Pomona

Lab Chronicle

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

Job ID: 380-109681-1
 SDG: Weekly

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-109681-1

Date Collected: 08/19/24 11:34

Matrix: Drinking Water

Date Received: 08/21/24 09:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			104844	KRD3	EA POM	08/22/24 09:24
Total/NA	Analysis	525.2		1	105062	Q8LA	EA POM	08/23/24 15:34
Total/NA	Analysis	8015B GRO LL		1	474932	GC3Z	EET CAL 4	08/28/24 01:10
Total/NA	Prep	3510C			474553	H6FE	EET CAL 4	08/26/24 14:51
Total/NA	Analysis	8015B		1	476494	SP9M	EET CAL 4	08/31/24 19:40

Client Sample ID: TB: KA'AMILO WELLS

Lab Sample ID: 380-109681-2

Date Collected: 08/19/24 11:34

Matrix: Water

Date Received: 08/21/24 09:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	474932	GC3Z	EET CAL 4	08/27/24 21:18

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: 380-109681-1
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	Drinking Water	1-Methylnaphthalene
525.2	525.2	Drinking Water	2,4'-DDD
525.2	525.2	Drinking Water	2,4'-DDE
525.2	525.2	Drinking Water	2,4'-DDT
525.2	525.2	Drinking Water	2,4-Dinitrotoluene
525.2	525.2	Drinking Water	2,6-Dinitrotoluene
525.2	525.2	Drinking Water	2-Methylnaphthalene
525.2	525.2	Drinking Water	4,4'-DDD
525.2	525.2	Drinking Water	4,4'-DDE
525.2	525.2	Drinking Water	4,4' DDT
525.2	525.2	Drinking Water	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	beta-BHC
525.2	525.2	Drinking Water	Chlorobenzilate
525.2	525.2	Drinking Water	Chloroneb
525.2	525.2	Drinking Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Drinking Water	Chlorpyrifos
525.2	525.2	Drinking Water	delta-BHC
525.2	525.2	Drinking Water	Diclorvos (DDVP)
525.2	525.2	Drinking Water	Endosulfan I (Alpha)
525.2	525.2	Drinking Water	Endosulfan II (Beta)
525.2	525.2	Drinking Water	Endosulfan sulfate
525.2	525.2	Drinking Water	Endrin aldehyde
525.2	525.2	Drinking Water	EPTC
525.2	525.2	Drinking Water	gamma-Chlordane
525.2	525.2	Drinking Water	Isophorone
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbutylazine
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24
Arkansas DEQ	State	88-0161	07-02-25
California	Los Angeles County Sanitation Districts	9257304	08-01-24 *
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	10-31-24

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

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-109681-1
SDG: Weekly

Laboratory: Eurofins Calscience (Continued)

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-24

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Method Summary

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

Job ID: 380-109681-1
SDG: Weekly

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
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

Protocol References:

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: 380-109681-1
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-109681-1	KA'AMILO WELLS	Drinking Water	08/19/24 11:34	08/21/24 09:51	HI0000331
380-109681-2	TB: KA'AMILO WELLS	Water	08/19/24 11:34	08/21/24 09:51	

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Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-109681-1

SDG Number: Weekly

Login Number: 109681

List Number: 1

Creator: Segura, Ryan

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").	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: 380-109681-1

SDG Number: Weekly

Login Number: 109681

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 08/22/24 03:17 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	1.6
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	

