

ANALYTICAL REPORT

PREPARED FOR

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Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
Weekly

JOB NUMBER

380-113718-1

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: 380-113718-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

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

GC/MS Semi VOA TICs

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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: 380-113718-1

Job ID: 380-113718-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-113718-1

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

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

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

Receipt

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

GC/MS Semi VOA

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

Gasoline Range Organics

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

Diesel Range Organics

Method 8015B_DRO_LL_CS: The following sample(s) was re-prepared outside of preparation holding time to confirm result. AIEA WELLS PUMPS 1&2 (260) P2 (380-113718-3). Data excluded due to this.

Method 8015B_DRO_LL_CS: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-487100. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

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

Detection Summary

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

Job ID: 380-113718-1
SDG: Weekly

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-113718-1

No Detections.

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-113718-2

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-113718-3

No Detections.

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-113718-4

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.

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Client Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-113718-1

Date Collected: 09/16/24 10:36

Matrix: Water

Date Received: 09/18/24 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
2,4'-DDD	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
2,4'-DDE	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
2,4'-DDT	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
2-Methylnaphthalene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
4,4'-DDD	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
4,4'-DDE	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
4,4'-DDT	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Acenaphthene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Acenaphthylene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Acetochlor	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Alachlor	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
alpha-BHC	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
alpha-Chlordane	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Anthracene	<0.019		0.019	ug/L		09/19/24 14:00	09/20/24 16:56	1
Atrazine	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Benz(a)anthracene	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Benzo[a]pyrene	<0.019		0.019	ug/L		09/19/24 14:00	09/20/24 16:56	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		09/19/24 14:00	09/20/24 16:56	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		09/19/24 14:00	09/20/24 16:56	1
beta-BHC	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		09/19/24 14:00	09/20/24 16:56	1
Bromacil	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Butachlor	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Butylbenzylphthalate	<0.48		0.48	ug/L		09/19/24 14:00	09/20/24 16:56	1
Chlorobenzilate	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Chloroneb	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Chlorpyrifos	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Chrysene	<0.019		0.019	ug/L		09/19/24 14:00	09/20/24 16:56	1
delta-BHC	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		09/19/24 14:00	09/20/24 16:56	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Dieldrin	<0.0097	^3+	0.0097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Diethylphthalate	<0.48		0.48	ug/L		09/19/24 14:00	09/20/24 16:56	1
Dimethylphthalate	<0.48		0.48	ug/L		09/19/24 14:00	09/20/24 16:56	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		09/19/24 14:00	09/20/24 16:56	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Endosulfan sulfate	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Endrin	<0.0097		0.0097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Endrin aldehyde	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
EPTC	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Fluoranthene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-113718-1

Date Collected: 09/16/24 10:36

Matrix: Water

Date Received: 09/18/24 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
gamma-Chlordane	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Heptachlor	<0.0097		0.0097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Hexachlorobenzene	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Isophorone	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Lindane	<0.0097	^3+	0.0097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Malathion	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Methoxychlor	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Metolachlor	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Molinate	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Naphthalene	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Parathion	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Phenanthrene	<0.039		0.039	ug/L		09/19/24 14:00	09/20/24 16:56	1
Propachlor	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Pyrene	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Simazine	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Terbacil	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Terbutylazine	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Thiobencarb	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		09/19/24 14:00	09/20/24 16:56	1
trans-Nonachlor	<0.048		0.048	ug/L		09/19/24 14:00	09/20/24 16:56	1
Trifluralin	<0.097		0.097	ug/L		09/19/24 14:00	09/20/24 16:56	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	09/19/24 14:00	09/20/24 16:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	09/19/24 14:00	09/20/24 16:56	1
Perylene-d12	95		70 - 130	09/19/24 14:00	09/20/24 16:56	1
Triphenylphosphate	106		70 - 130	09/19/24 14:00	09/20/24 16:56	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
2-Methylnaphthalene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Acenaphthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Acenaphthylene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Anthracene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Benzo[a]anthracene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Benzo[a]pyrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Chrysene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Fluoranthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-113718-1

Date Collected: 09/16/24 10:36

Matrix: Water

Date Received: 09/18/24 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Naphthalene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Phenanthrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1
Pyrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		28 - 127	09/23/24 05:22	09/29/24 12:15	1
2-Fluorobiphenyl (Surr)	55		31 - 120	09/23/24 05:22	09/29/24 12:15	1
2-Fluorophenol (Surr)	46		17 - 120	09/23/24 05:22	09/29/24 12:15	1
Nitrobenzene-d5 (Surr)	57		27 - 120	09/23/24 05:22	09/29/24 12:15	1
Phenol-d6 (Surr)	29		10 - 120	09/23/24 05:22	09/29/24 12:15	1
p-Terphenyl-d14 (Surr)	53		45 - 120	09/23/24 05:22	09/29/24 12:15	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
Unknown	950	T J	ug/L		1.89	N/A	09/23/24 05:22	10/04/24 19:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	84		33 - 139	09/23/24 05:22	10/04/24 19:28	1
2-Fluorobiphenyl (Surr)	90		33 - 126	09/23/24 05:22	10/04/24 19:28	1
2-Fluorophenol (Surr)	51		12 - 120	09/23/24 05:22	10/04/24 19:28	1
Nitrobenzene-d5 (Surr)	97		36 - 120	09/23/24 05:22	10/04/24 19:28	1
Phenol-d6 (Surr)	29		10 - 120	09/23/24 05:22	10/04/24 19:28	1
p-Terphenyl-d14 (Surr)	83		47 - 131	09/23/24 05:22	10/04/24 19:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			09/20/24 19:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		38 - 134		09/20/24 19:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<26		26	ug/L		09/22/24 17:36	09/27/24 03:45	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		09/22/24 17:36	09/27/24 03:45	1
C8-C18	<26		26	ug/L		09/22/24 17:36	09/27/24 03:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	119		60 - 130	09/22/24 17:36	09/27/24 03:45	1

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-113718-2

Date Collected: 09/16/24 10:36

Matrix: Water

Date Received: 09/18/24 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			09/20/24 21:18	1

Client Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-113718-2

Date Collected: 09/16/24 10:36

Matrix: Water

Date Received: 09/18/24 10:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		38 - 134		09/20/24 21:18	1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-113718-3

Date Collected: 09/16/24 10:59

Matrix: Water

Date Received: 09/18/24 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
2,4'-DDD	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
2,4'-DDE	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
2,4'-DDT	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
2-Methylnaphthalene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
4,4'-DDD	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
4,4'-DDE	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
4,4'-DDT	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Acenaphthene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Acenaphthylene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Acetochlor	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Alachlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
alpha-BHC	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
alpha-Chlordane	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Anthracene	<0.019		0.019	ug/L		09/19/24 11:30	09/20/24 17:17	1
Atrazine	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Benz(a)anthracene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Benzo[a]pyrene	<0.019		0.019	ug/L		09/19/24 11:30	09/20/24 17:17	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		09/19/24 11:30	09/20/24 17:17	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		09/19/24 11:30	09/20/24 17:17	1
beta-BHC	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		09/19/24 11:30	09/20/24 17:17	1
Bromacil	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Butachlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Butylbenzylphthalate	<0.49		0.49	ug/L		09/19/24 11:30	09/20/24 17:17	1
Chlorobenzilate	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Chloroneb	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Chlorpyrifos	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Chrysene	<0.019		0.019	ug/L		09/19/24 11:30	09/20/24 17:17	1
delta-BHC	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		09/19/24 11:30	09/20/24 17:17	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Dieldrin	<0.0097		0.0097	ug/L		09/19/24 11:30	09/23/24 18:36	1
Diethylphthalate	<0.49		0.49	ug/L		09/19/24 11:30	09/20/24 17:17	1
Dimethylphthalate	<0.49		0.49	ug/L		09/19/24 11:30	09/20/24 17:17	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		09/19/24 11:30	09/20/24 17:17	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-113718-3

Date Collected: 09/16/24 10:59

Matrix: Water

Date Received: 09/18/24 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I (Alpha)	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Endosulfan sulfate	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Endrin	<0.0097		0.0097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Endrin aldehyde	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
EPTC	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Fluoranthene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Fluorene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
gamma-Chlordane	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Heptachlor	<0.0097		0.0097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Hexachlorobenzene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Isophorone	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Lindane	<0.0097	^3+	0.0097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Malathion	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Methoxychlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Metolachlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Molinate	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Naphthalene	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Parathion	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Phenanthrene	<0.039		0.039	ug/L		09/19/24 11:30	09/20/24 17:17	1
Propachlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Pyrene	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Simazine	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Terbacil	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Terbutylazine	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Thiobencarb	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		09/19/24 11:30	09/20/24 17:17	1
trans-Nonachlor	<0.049		0.049	ug/L		09/19/24 11:30	09/20/24 17:17	1
Trifluralin	<0.097		0.097	ug/L		09/19/24 11:30	09/20/24 17:17	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Decane	1.5	T J N	ug/L		2.83	124-18-5	09/19/24 11:30	09/23/24 18:36	1
Tentatively Identified Compound	None		ug/L			N/A	09/19/24 11:30	09/20/24 17:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	09/19/24 11:30	09/20/24 17:17	1
2-Nitro-m-xylene	96		70 - 130	09/19/24 11:30	09/23/24 18:36	1
Perylene-d12	95		70 - 130	09/19/24 11:30	09/20/24 17:17	1
Perylene-d12	94		70 - 130	09/19/24 11:30	09/23/24 18:36	1
Triphenylphosphate	107		70 - 130	09/19/24 11:30	09/20/24 17:17	1
Triphenylphosphate	101		70 - 130	09/19/24 11:30	09/23/24 18:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
2-Methylnaphthalene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-113718-3

Date Collected: 09/16/24 10:59

Matrix: Water

Date Received: 09/18/24 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Acenaphthylene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Anthracene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Benzo[a]anthracene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Benzo[a]pyrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Chrysene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Fluoranthene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Fluorene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Naphthalene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Phenanthrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1
Pyrene	<0.19		0.19	ug/L		09/23/24 05:22	09/29/24 12:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		28 - 127	09/23/24 05:22	09/29/24 12:37	1
2-Fluorobiphenyl (Surr)	54		31 - 120	09/23/24 05:22	09/29/24 12:37	1
2-Fluorophenol (Surr)	46		17 - 120	09/23/24 05:22	09/29/24 12:37	1
Nitrobenzene-d5 (Surr)	55		27 - 120	09/23/24 05:22	09/29/24 12:37	1
Phenol-d6 (Surr)	29		10 - 120	09/23/24 05:22	09/29/24 12:37	1
p-Terphenyl-d14 (Surr)	55		45 - 120	09/23/24 05:22	09/29/24 12:37	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
Unknown	980	T J	ug/L		1.89	N/A	09/23/24 05:22	10/04/24 19:51	1
Unknown	10000	T J	ug/L		2.02	N/A	09/23/24 05:22	10/04/24 19:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	60		33 - 139	09/23/24 05:22	10/04/24 19:51	1
2-Fluorobiphenyl (Surr)	66		33 - 126	09/23/24 05:22	10/04/24 19:51	1
2-Fluorophenol (Surr)	34		12 - 120	09/23/24 05:22	10/04/24 19:51	1
Nitrobenzene-d5 (Surr)	67		36 - 120	09/23/24 05:22	10/04/24 19:51	1
Phenol-d6 (Surr)	21		10 - 120	09/23/24 05:22	10/04/24 19:51	1
p-Terphenyl-d14 (Surr)	71		47 - 131	09/23/24 05:22	10/04/24 19:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			09/20/24 19:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		38 - 134		09/20/24 19:45	1

Client Sample Results

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

Job ID: 380-113718-1
 SDG: Weekly

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-113718-4

Date Collected: 09/16/24 10:59

Matrix: Water

Date Received: 09/18/24 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			09/20/24 21:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		38 - 134				09/20/24 21:42	1

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

Action Limit Summary

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

Job ID: 380-113718-1
SDG: Weekly

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-113718-1

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	<0.048		ug/L	2		0.048	525.2	Total/NA
Atrazine	<0.048		ug/L	3		0.048	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	<0.048		ug/L	1		0.048	525.2	Total/NA
Hexachlorocyclopentadiene	<0.048		ug/L	50		0.048	525.2	Total/NA
Lindane	<0.0097	^3+	ug/L	0.2		0.0097	525.2	Total/NA
Methoxychlor	<0.048		ug/L	40		0.048	525.2	Total/NA
Simazine	<0.048		ug/L	4		0.048	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2		0.19	625.1 SIM	Total/NA

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-113718-3

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL		RL	Method	Prep Type
				Limit				
Alachlor	<0.049		ug/L	2		0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3		0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2		0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6		0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400		0.58	525.2	Total/NA
Endrin	<0.0097		ug/L	2		0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4		0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		ug/L	0.2		0.0097	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1		0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50		0.049	525.2	Total/NA
Lindane	<0.0097	^3+	ug/L	0.2		0.0097	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40		0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4		0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2		0.19	625.1 SIM	Total/NA

Surrogate Summary

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

Job ID: 380-113718-1
SDG: Weekly

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-113658-P-1-A MS	Matrix Spike	97	97	109
380-113675-B-1-A DU	Duplicate	96	94	110
380-113718-1	AIEA GULCH WELLS PUMP 2	96	95	106
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	97	95	107
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	96	94	101
LCS 380-109135/23-A	Lab Control Sample	97	98	113
MB 380-109135/21-A	Method Blank	96	95	108
MRL 380-109135/22-A	Lab Control Sample	97	96	106
MRL 380-109135/22-A	Lab Control Sample	100	92	98

Surrogate Legend

2NMX = 2-Nitro-m-xylene

PRY = Perylene-d12

TPP = Triphenylphosphate

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (33-139)	FBP (33-126)	2FP (12-120)	NBZ (36-120)	PHL6 (10-120)	TPHd14 (47-131)
380-113718-1	AIEA GULCH WELLS PUMP 2	84	90	51	97	29	83
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	60	66	34	67	21	71
MB 570-483623/1-A	Method Blank	61	66	39	68	25	86

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL6 = Phenol-d6 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHd14 (45-120)
380-113707-A-3-A MS	Matrix Spike	87	51	51	38	34	56
380-113707-A-3-B MSD	Matrix Spike Duplicate	90	52	53	39	34	58
380-113718-1	AIEA GULCH WELLS PUMP 2	90	55	46	57	29	53
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	90	54	46	55	29	55
LCS 570-483623/2-A	Lab Control Sample	86	52	58	39	39	60
LCSD 570-483623/3-A	Lab Control Sample Dup	89	52	58	39	39	62
MB 570-483623/1-A	Method Blank	77	41	39	43	25	55

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

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Surrogate Summary

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

Job ID: 380-113718-1
 SDG: Weekly

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

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-113707-C-3 MS	Matrix Spike	91
380-113707-C-3 MSD	Matrix Spike Duplicate	91
380-113718-1	AIEA GULCH WELLS PUMP 2	84
380-113718-2	TB: AIEA GULCH WELLS PUMF 2	86
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	83
380-113718-4	TB: AIEA WELLS PUMPS 1&2 (260) P2	85
LCS 570-483045/4	Lab Control Sample	89
LCSD 570-483045/5	Lab Control Sample Dup	92
MB 570-483045/6	Method Blank	85
MRL 570-483045/3	Lab Control Sample	86

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-113707-B-3-A MS	Matrix Spike	118
380-113707-B-3-B MSD	Matrix Spike Duplicate	105
380-113718-1	AIEA GULCH WELLS PUMP 2	119
LCS 570-483575/2-A	Lab Control Sample	118
LCSD 570-483575/3-A	Lab Control Sample Dup	114
MB 570-483575/1-A	Method Blank	109
MRL 570-483575/4-A	Lab Control Sample	118

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-113718-1
 SDG: Weekly

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

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

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

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

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QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

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

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

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

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.95	1.87		ug/L		96	70 - 130
2,4'-DDD	1.95	2.20		ug/L		113	70 - 130
2,4'-DDE	1.95	2.15		ug/L		110	70 - 130
2,4'-DDT	1.95	2.11		ug/L		108	70 - 130
2,4-Dinitrotoluene	1.95	2.26		ug/L		116	70 - 130
2,6-Dinitrotoluene	1.95	2.19		ug/L		113	70 - 130
2-Methylnaphthalene	1.95	1.83		ug/L		94	70 - 130

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QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

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

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

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

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

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

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

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

QC Sample Results

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

Job ID: 380-113718-1
 SDG: Weekly

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

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

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[a]pyrene	0.0195	0.0193	J	ug/L		99	50 - 150
Benzo[b]fluoranthene	0.0195	0.0181	J	ug/L		93	50 - 150
Benzo[g,h,i]perylene	0.0488	0.0439	J	ug/L		90	50 - 150
Benzo[k]fluoranthene	0.0195	0.0187	J	ug/L		96	50 - 150
beta-BHC	0.0975	0.120		ug/L		123	50 - 150
Bis(2-ethylhexyl) phthalate	0.585	0.506	J	ug/L		86	50 - 150
Bromacil	0.0975	0.118		ug/L		122	50 - 150
Butachlor	0.0488	0.0669		ug/L		137	50 - 150
Butylbenzylphthalate	0.488	0.518		ug/L		106	50 - 150
Chlorobenzilate	0.0975	0.102		ug/L		104	50 - 150
Chloroneb	0.0975	0.0885	J	ug/L		91	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0975	0.124		ug/L		127	50 - 150
Chlorpyrifos	0.0488	0.0519		ug/L		106	50 - 150
Chrysene	0.0195	0.0211		ug/L		108	50 - 150
delta-BHC	0.0975	0.112		ug/L		115	50 - 150
Di(2-ethylhexyl)adipate	0.585	0.545	J	ug/L		93	50 - 150
Dibenz(a,h)anthracene	0.0488	0.0400	J	ug/L		82	50 - 150
Diclorvos (DDVP)	0.0488	0.0478	J	ug/L		98	50 - 150
Dieldrin	0.00975	0.0150	^3+	ug/L		154	50 - 150
Diethylphthalate	0.488	0.509		ug/L		104	50 - 150
Dimethylphthalate	0.488	0.502		ug/L		103	50 - 150
Di-n-butyl phthalate	0.488	0.535	J	ug/L		110	49 - 243
Di-n-octyl phthalate	0.0975	0.0712	J	ug/L		73	50 - 150
Endosulfan I (Alpha)	0.0975	0.0980		ug/L		101	50 - 150
Endosulfan II (Beta)	0.0975	0.107		ug/L		110	50 - 150
Endosulfan sulfate	0.0975	0.121		ug/L		124	50 - 150
Endrin	0.00975	0.0141		ug/L		145	50 - 150
Endrin aldehyde	0.0975	0.110		ug/L		112	50 - 150
EPTC	0.0975	0.0907	J	ug/L		93	50 - 150
Fluoranthene	0.0975	0.101		ug/L		104	50 - 150
Fluorene	0.0488	0.0499		ug/L		102	50 - 150
gamma-Chlordane	0.0244	0.0254	J	ug/L		104	50 - 150
Heptachlor	0.00975	0.0111		ug/L		114	50 - 150
Heptachlor epoxide (isomer B)	0.00975	0.0146		ug/L		150	50 - 150
Hexachlorobenzene	0.0488	0.0508		ug/L		104	50 - 150
Hexachlorocyclopentadiene	0.0488	0.0510		ug/L		105	50 - 150
Indeno[1,2,3-cd]pyrene	0.0488	0.0397	J	ug/L		81	50 - 150
Isophorone	0.0975	0.111		ug/L		113	50 - 150
Lindane	0.00975	0.0156	^3+	ug/L		160	50 - 150
Malathion	0.0975	0.116		ug/L		119	50 - 150
Methoxychlor	0.0488	0.0727		ug/L		149	50 - 150
Metolachlor	0.0488	0.0580		ug/L		119	50 - 150
Molinate	0.0975	0.0992		ug/L		102	50 - 150
Naphthalene	0.0975	0.0966	J	ug/L		99	50 - 150
Parathion	0.0975	0.106		ug/L		109	50 - 150
Pendimethalin (Penoxaline)	0.0975	0.123		ug/L		126	50 - 150
Phenanthrene	0.0390	0.0425		ug/L		109	50 - 150
Propachlor	0.0488	0.0495		ug/L		102	50 - 150
Pyrene	0.0488	0.0491		ug/L		101	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Simazine	0.0488	0.0524		ug/L		107	50 - 150
Terbacil	0.0975	0.110		ug/L		112	50 - 150
Terbutylazine	0.0975	0.109		ug/L		112	50 - 150
Thiobencarb	0.0975	0.100		ug/L		103	50 - 150
trans-Nonachlor	0.0244	0.0273	J	ug/L		112	50 - 150
Trifluralin	0.0975	0.115		ug/L		118	50 - 150

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

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

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

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

QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorpyrifos	0.0488	0.0502		ug/L		103	50 - 150
Chrysene	0.0195	0.0215		ug/L		110	50 - 150
delta-BHC	0.0975	0.108		ug/L		111	50 - 150
Di(2-ethylhexyl)adipate	0.585	0.664		ug/L		114	50 - 150
Dibenz(a,h)anthracene	0.0488	0.0477	J	ug/L		98	50 - 150
Diclorvos (DDVP)	0.0488	0.0584		ug/L		120	50 - 150
Dieldrin	0.00975	0.0104		ug/L		107	50 - 150
Diethylphthalate	0.488	0.530		ug/L		109	50 - 150
Dimethylphthalate	0.488	0.518		ug/L		106	50 - 150
Di-n-butyl phthalate	0.488	0.507	J	ug/L		104	49 - 243
Di-n-octyl phthalate	0.0975	0.105		ug/L		108	50 - 150
Endosulfan I (Alpha)	0.0975	0.0948	J	ug/L		97	50 - 150
Endosulfan II (Beta)	0.0975	0.112		ug/L		115	50 - 150
Endosulfan sulfate	0.0975	0.0985		ug/L		101	50 - 150
Endrin	0.00975	0.0140		ug/L		143	50 - 150
Endrin aldehyde	0.0975	0.0842	J	ug/L		86	50 - 150
EPTC	0.0975	0.0983		ug/L		101	50 - 150
Fluoranthene	0.0975	0.0988		ug/L		101	50 - 150
Fluorene	0.0488	<0.049		ug/L		98	50 - 150
gamma-Chlordane	0.0244	0.0260	J	ug/L		107	50 - 150
Heptachlor	0.00975	0.0125		ug/L		128	50 - 150
Heptachlor epoxide (isomer B)	0.00975	0.0152	^3+	ug/L		156	50 - 150
Hexachlorobenzene	0.0488	0.0473	J	ug/L		97	50 - 150
Hexachlorocyclopentadiene	0.0488	0.0497		ug/L		102	50 - 150
Indeno[1,2,3-cd]pyrene	0.0488	0.0492		ug/L		101	50 - 150
Isophorone	0.0975	0.125		ug/L		128	50 - 150
Lindane	0.00975	0.0145		ug/L		148	50 - 150
Malathion	0.0975	0.101		ug/L		104	50 - 150
Methoxychlor	0.0488	0.0756	^3+	ug/L		155	50 - 150
Metolachlor	0.0488	0.0570		ug/L		117	50 - 150
Molinate	0.0975	0.108		ug/L		111	50 - 150
Naphthalene	0.0975	0.105		ug/L		108	50 - 150
Parathion	0.0975	0.0863	J	ug/L		88	50 - 150
Pendimethalin (Penoxaline)	0.0975	0.0953	J	ug/L		98	50 - 150
Phenanthrene	0.0390	0.0431		ug/L		110	50 - 150
Propachlor	0.0488	0.0524		ug/L		108	50 - 150
Pyrene	0.0488	0.0482	J	ug/L		99	50 - 150
Simazine	0.0488	0.0514		ug/L		105	50 - 150
Terbacil	0.0975	0.0998		ug/L		102	50 - 150
Terbutylazine	0.0975	0.105		ug/L		108	50 - 150
Thiobencarb	0.0975	0.111		ug/L		114	50 - 150
trans-Nonachlor	0.0244	0.0285	J	ug/L		117	50 - 150
Trifluralin	0.0975	0.0987		ug/L		101	50 - 150

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

QC Sample Results

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

Job ID: 380-113718-1
 SDG: Weekly

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

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

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

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

QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

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

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

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

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

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

QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

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

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

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

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

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

Lab Sample ID: MB 570-483623/1-A
Matrix: Water
Analysis Batch: 487834

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

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L			N/A	09/23/24 05:22	10/04/24 19:04	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	61		33 - 139	09/23/24 05:22	10/04/24 19:04	1
2-Fluorobiphenyl (Surr)	66		33 - 126	09/23/24 05:22	10/04/24 19:04	1
2-Fluorophenol (Surr)	39		12 - 120	09/23/24 05:22	10/04/24 19:04	1
Nitrobenzene-d5 (Surr)	68		36 - 120	09/23/24 05:22	10/04/24 19:04	1
Phenol-d6 (Surr)	25		10 - 120	09/23/24 05:22	10/04/24 19:04	1
p-Terphenyl-d14 (Surr)	86		47 - 131	09/23/24 05:22	10/04/24 19:04	1

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

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

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
2-Methylnaphthalene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1
Acenaphthene	<0.20		0.20	ug/L		09/23/24 05:22	09/29/24 08:58	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

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

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

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	40.0	27.6		ug/L		69	47 - 120
2-Methylnaphthalene	40.0	27.4		ug/L		68	43 - 120
Acenaphthene	40.0	38.3		ug/L		96	60 - 132
Acenaphthylene	40.0	39.5		ug/L		99	54 - 126
Anthracene	40.0	41.3		ug/L		103	43 - 120
Benzo[a]anthracene	40.0	42.9		ug/L		107	42 - 133
Benzo[a]pyrene	40.0	43.7		ug/L		109	32 - 148
Benzo[b]fluoranthene	40.0	42.4		ug/L		106	42 - 140
Benzo[g,h,i]perylene	40.0	42.9		ug/L		107	1 - 195
Benzo[k]fluoranthene	40.0	42.7		ug/L		107	25 - 146
Chrysene	40.0	41.1		ug/L		103	44 - 140
Dibenz(a,h)anthracene	40.0	43.6		ug/L		109	1 - 200
Fluoranthene	40.0	42.6		ug/L		106	43 - 121
Fluorene	40.0	40.1		ug/L		100	70 - 120
Indeno[1,2,3-cd]pyrene	40.0	43.5		ug/L		109	1 - 151
Naphthalene	40.0	25.7		ug/L		64	36 - 120
Phenanthrene	40.0	41.4		ug/L		104	65 - 120
Pyrene	40.0	41.7		ug/L		104	70 - 120

QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

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

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

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

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

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

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

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 483623

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec	
				Result	Qualifier				Limits	RPD
1-Methylnaphthalene	<0.19		38.5	27.5		ug/L		71	36 - 120	
2-Methylnaphthalene	<0.19		38.5	26.2		ug/L		68	32 - 124	
Acenaphthene	<0.19		38.5	38.0		ug/L		99	47 - 145	
Acenaphthylene	<0.19		38.5	38.6		ug/L		100	33 - 145	

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 483623

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	90		28 - 127
2-Fluorobiphenyl (Surr)	52		31 - 120
2-Fluorophenol (Surr)	53		17 - 120
Nitrobenzene-d5 (Surr)	39		27 - 120
Phenol-d6 (Surr)	34		10 - 120
p-Terphenyl-d14 (Surr)	58		45 - 120

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

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

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			09/20/24 12:55	1

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

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	400	362		ug/L		91	78 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	89		38 - 134

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

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	400	360		ug/L		90	78 - 120	1	10

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	92		38 - 134

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

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	10.0	11.1		ug/L		111	50 - 150

QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

Surrogate	MRL %Recovery	MRL Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		38 - 134

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

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	354		ug/L		88	68 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		38 - 134

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

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	351		ug/L		88	68 - 122	1	18

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		38 - 134

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

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

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

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 130	09/22/24 17:36	09/27/24 01:16	1

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

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

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane (Surr)	118		60 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-113718-1
SDG: Weekly

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

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

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
C10-C28	1600	1280		ug/L		80	56 - 127	4	23
Surrogate									
	%Recovery	Qualifier	Limits						
<i>n-Octacosane (Surr)</i>	114		60 - 130						

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

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28	0.0200	0.0277		mg/L		138	50 - 150		
Surrogate									
	%Recovery	Qualifier	Limits						
<i>n-Octacosane (Surr)</i>	118		60 - 130						

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

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 483575

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28	<26		1610	1380		ug/L		86	70 - 130		
Surrogate											
	%Recovery	Qualifier	Limits								
<i>n-Octacosane (Surr)</i>	118		60 - 130								

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

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 483575

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
C10-C28	<26		1640	1340		ug/L		82	70 - 130	3	20
Surrogate											
	%Recovery	Qualifier	Limits								
<i>n-Octacosane (Surr)</i>	105		60 - 130								

QC Association Summary

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

Job ID: 380-113718-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 109135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113718-1	AIEA GULCH WELLS PUMP 2	Total/NA	Water	525.2	
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	525.2	
MB 380-109135/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-109135/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-109135/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-113658-P-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-113675-B-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 109405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113718-1	AIEA GULCH WELLS PUMP 2	Total/NA	Water	525.2	109135
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	525.2	109135
MB 380-109135/21-A	Method Blank	Total/NA	Water	525.2	109135
LCS 380-109135/23-A	Lab Control Sample	Total/NA	Water	525.2	109135
MRL 380-109135/22-A	Lab Control Sample	Total/NA	Water	525.2	109135
380-113658-P-1-A MS	Matrix Spike	Total/NA	Water	525.2	109135
380-113675-B-1-A DU	Duplicate	Total/NA	Water	525.2	109135

Analysis Batch: 109739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	525.2	109135
MRL 380-109135/22-A	Lab Control Sample	Total/NA	Water	525.2	109135

Prep Batch: 483623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113718-1	AIEA GULCH WELLS PUMP 2	Total/NA	Water	625.1	
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	625.1	
MB 570-483623/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-483623/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-483623/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-113707-A-3-A MS	Matrix Spike	Total/NA	Water	625.1	
380-113707-A-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

Analysis Batch: 485893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113718-1	AIEA GULCH WELLS PUMP 2	Total/NA	Water	625.1 SIM	483623
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	625.1 SIM	483623
MB 570-483623/1-A	Method Blank	Total/NA	Water	625.1 SIM	483623
LCS 570-483623/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	483623
LCSD 570-483623/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	483623
380-113707-A-3-A MS	Matrix Spike	Total/NA	Water	625.1 SIM	483623
380-113707-A-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	483623

Analysis Batch: 487834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113718-1	AIEA GULCH WELLS PUMP 2	Total/NA	Water	625.1	483623
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	625.1	483623
MB 570-483623/1-A	Method Blank	Total/NA	Water	625.1	483623

QC Association Summary

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

Job ID: 380-113718-1
 SDG: Weekly

GC VOA

Analysis Batch: 483045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113718-1	AIEA GULCH WELLS PUMP 2	Total/NA	Water	8015B GRO LL	
380-113718-2	TB: AIEA GULCH WELLS PUMP 2	Total/NA	Water	8015B GRO LL	
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	8015B GRO LL	
380-113718-4	TB: AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	8015B GRO LL	
MB 570-483045/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-483045/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-483045/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-483045/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-113707-C-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-113707-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 483575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113718-1	AIEA GULCH WELLS PUMP 2	Total/NA	Water	3510C	
MB 570-483575/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-483575/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-483575/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-483575/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-113707-B-3-A MS	Matrix Spike	Total/NA	Water	3510C	
380-113707-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 485285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-113718-1	AIEA GULCH WELLS PUMP 2	Total/NA	Water	8015B	483575
MB 570-483575/1-A	Method Blank	Total/NA	Water	8015B	483575
LCS 570-483575/2-A	Lab Control Sample	Total/NA	Water	8015B	483575
LCSD 570-483575/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	483575
MRL 570-483575/4-A	Lab Control Sample	Total/NA	Water	8015B	483575
380-113707-B-3-A MS	Matrix Spike	Total/NA	Water	8015B	483575
380-113707-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	483575

Lab Chronicle

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

Job ID: 380-113718-1
SDG: Weekly

Client Sample ID: AIEA GULCH WELLS PUMP 2
Date Collected: 09/16/24 10:36
Date Received: 09/18/24 10:20

Lab Sample ID: 380-113718-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			109135	KRD3	EA POM	09/19/24 14:00
Total/NA	Analysis	525.2		1	109405	UPAC	EA POM	09/20/24 16:56
Total/NA	Prep	625.1			483623	H1SH	EET CAL 4	09/23/24 05:22
Total/NA	Analysis	625.1		1	487834	J7WE	EET CAL 4	10/04/24 19:28
Total/NA	Prep	625.1			483623	H1SH	EET CAL 4	09/23/24 05:22
Total/NA	Analysis	625.1 SIM		1	485893	PQS1	EET CAL 4	09/29/24 12:15
Total/NA	Analysis	8015B GRO LL		1	483045	A9VE	EET CAL 4	09/20/24 19:22
Total/NA	Prep	3510C			483575	H6FE	EET CAL 4	09/22/24 17:36
Total/NA	Analysis	8015B		1	485285	SP9M	EET CAL 4	09/27/24 03:45

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2
Date Collected: 09/16/24 10:36
Date Received: 09/18/24 10:20

Lab Sample ID: 380-113718-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	483045	A9VE	EET CAL 4	09/20/24 21:18

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
Date Collected: 09/16/24 10:59
Date Received: 09/18/24 10:20

Lab Sample ID: 380-113718-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			109135	KRD3	EA POM	09/19/24 11:30
Total/NA	Analysis	525.2		1	109405	UPAC	EA POM	09/20/24 17:17
Total/NA	Prep	525.2			109135	KRD3	EA POM	09/19/24 11:30
Total/NA	Analysis	525.2		1	109739	UPAC	EA POM	09/23/24 18:36
Total/NA	Prep	625.1			483623	H1SH	EET CAL 4	09/23/24 05:22
Total/NA	Analysis	625.1		1	487834	J7WE	EET CAL 4	10/04/24 19:51
Total/NA	Prep	625.1			483623	H1SH	EET CAL 4	09/23/24 05:22
Total/NA	Analysis	625.1 SIM		1	485893	PQS1	EET CAL 4	09/29/24 12:37
Total/NA	Analysis	8015B GRO LL		1	483045	A9VE	EET CAL 4	09/20/24 19:45

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260) P2
Date Collected: 09/16/24 10:59
Date Received: 09/18/24 10:20

Lab Sample ID: 380-113718-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	483045	A9VE	EET CAL 4	09/20/24 21:42

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: 380-113718-1
 SDG: Weekly

Laboratory: Eurofins Eaton Analytical Pomona

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

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

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

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

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-15-24
Arkansas DEQ	State	88-0161	07-02-25
California	Los Angeles County Sanitation Districts	9257304	08-01-24 *
California	SCAQMD LAP	17LA0919	11-30-24
California	State	3082	10-06-24
Kansas	NELAP	E-10420	07-31-25

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

Accreditation/Certification Summary

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

Job ID: 380-113718-1
SDG: Weekly

Laboratory: Eurofins Calscience (Continued)

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

Authority	Program	Identification Number	Expiration Date
Nevada	State	CA00111	10-07-24
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: 380-113718-1
SDG: Weekly

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	EET CAL 4
8015B GRO LL	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC) Low Level	SW846	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
525.2	Extraction of Semivolatile Compounds	EPA	EA POM
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

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

Job ID: 380-113718-1
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-113718-1	AIEA GULCH WELLS PUMP 2	Water	09/16/24 10:36	09/18/24 10:20
380-113718-2	TB: AIEA GULCH WELLS PUMP 2	Water	09/16/24 10:36	09/18/24 10:20
380-113718-3	AIEA WELLS PUMPS 1&2 (260) P2	Water	09/16/24 10:59	09/18/24 10:20
380-113718-4	TB: AIEA WELLS PUMPS 1&2 (260) P2	Water	09/16/24 10:59	09/18/24 10:20

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Chain of Custody Record

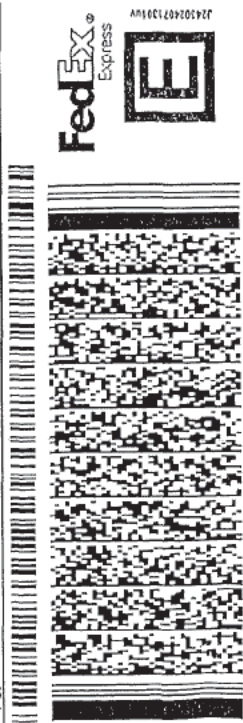
Client Information		Sampler bailey		Lab PM Arada, Rachelle		COC No. 380-28005-2757 1	
Client Contact Dr Ron Fenstermacher		Phone: +1 808 748 5840		E-Mail: Rachelle.Arada@et.eurofins.com		Page: Page 1 of 1	
Company City & County of Honolulu		PWSID:		Analysis Requested		Job #:	
Address: 630 South Beretania Street Chemistry Lab		Due Date Requested		537 1_DW_PREC 537 1 Full List		Preservation Codes: R - NaThioSO4 RA - NaThioHCl Q - Na2SO3 QA - Na2SO3/HCl Y - Trizma I - NH4 Acetate	
City: Honolulu		TAT Requested (days)		537 2_PREC - (MOD) 525 Plus Plus TICs		Other: 380-113718 COC	
State, Zip: HI 96843		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		5015B_PRO_LL_CS - HNL Ranges C10-C24/C24-C36/C8-C18		Total Number of containers	
Phone: 808-748-5091(Tel)		PO #: C20525101 exp 05312023		5015B_GRO_LL - (MOD) GRO		Special Instructions/Note:	
Email: RFENSTEMACHER@hbws.org		WO #:		6561_625_1_SIM		RA Q QA Y I	
Project Name RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill		Project #: 38001111		Field Filtered Sample (Yes or No)		R 2 3 2 2	
Site: Hawaii		SSOW#:		Perform MS/MSD (Yes or No)		QA Y I	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Aiea Gulch Wells Pump 2		16-Sep-2024		1036 G		Matrix (Water, G=Solid, O=Solid, I=Tissue, A=Air)	
Aiea Gulch Wells Pump 2 (Matrix Spike)						Water	
Aiea Gulch Wells Pump 2 (Matrix Spike Duplicate)		16-Sep-2024		1036		Water	
TB: Aiea Gulch Wells Pump 2						Water	
Aiea Wells Pumps 1&2 (260) PZ		16-Sep-2024		1059 G		Water	
Aiea Wells Pumps 1&2 (260) (Matrix Spike)						Water	
Aiea Wells Pumps 1&2 (Matrix Spike Duplicate)		16-Sep-2024		1059		Water	
TB: Aiea Wells Pumps 1&2 (260)						Water	
Possible Hazard Identification							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological							
Deliverable Requested I, II, III, IV, Other (specify)							
Empty Kit Relinquished by							
Relinquished		Date		Time		Method of Shipment	
Relinquished by		17 Sept. 2024		1400		Company HBWS	
Relinquished by		Date/Time:		Date/Time:		Date/Time:	
Relinquished by		Date/Time:		Date/Time:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 6.8A / 3.9 - 0.2 = 3.7		Company Company	



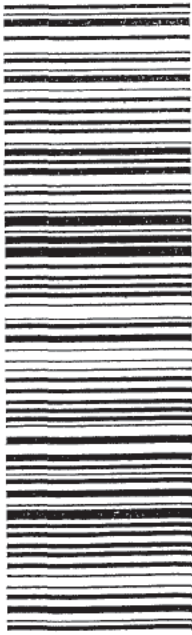
ORIGIN ID HIKI (808) 748-5840
BIWS CHEMLAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST
CHEMICAL LABORATORY
HONOLULU HI 96843
UNITED STATES US

SHIP DATE: 17SEP24
ACTWGT: 57.00 LB
CAD 258050552/NET14535
BILL RECIPIENT

TO EUROFINS RECEIVING DEPARTMENT
EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR
POMONA CA 91768
REF: 583J2M4EF9VAE3



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



61877 2.2-0.2 = 2.0 GOR
WMS 9/18/24 10-20

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BWS CHEM LAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BEREJANIA ST.
CHEMICAL LABORATORY
HONOLULU HI 96843
UNITED STATES/US

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

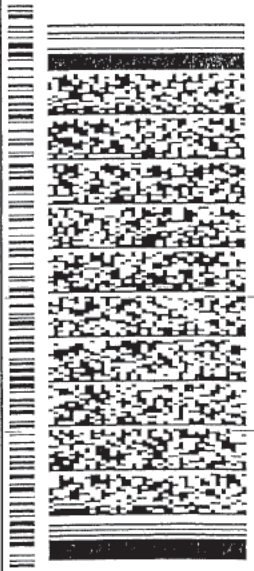
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PRIORITY OVERNIGHT

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Mst# 7786 4951 0020

91768
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687A / 6-1-22 = 5-9
OEC

YMDI 9/18/24 10:30

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BWS CHEMLAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST.
CHEMICAL LABORATORY
HONOLULU HI 96843
UNITED STATES US

SHIP DATE: 17SEP24
ACTWGT 57.00 LB
CAD 258050552/INET4535
BILL RECIPIENT
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EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR

583J2MEF9/9AEC3

POMONA CA 91768

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WED - 18 SEP 10:30A
PRIORITY OVERNIGHT

3 of 5

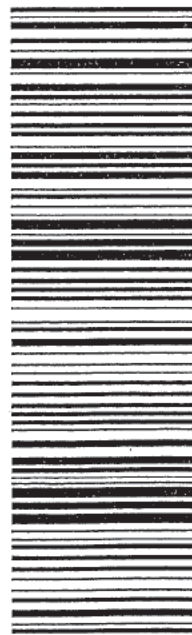
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Mst# 7786 4951 0020

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Handwritten notes:
5-30-2-5-1 GPZ
4110, 9/18/24 10-2e

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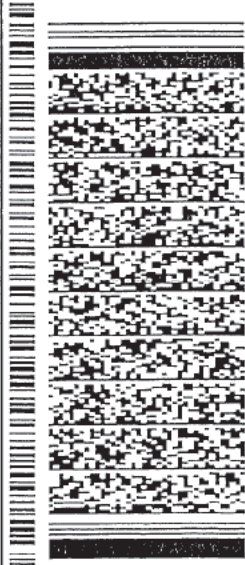
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BWS CHEMLAB
HONOLULU BOARD OF WATER SUPPLY
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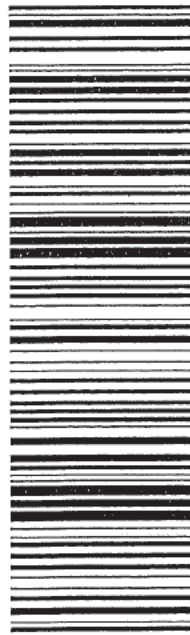
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CA-US ONT



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

BILL RECIPIENT

683J2MEF9/9AEC3

08A/3-9-20-2-3.7
662

9/18/24
10-20

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

- 1
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- 16

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Arada, Rachelle		Carrier Tracking No(s): 380-154573.1	
Shipping/Receiving		E-Mail: Rachelle.Arada@eurofins.com		Page: Page 1 of 1	
Company: Eurofins Environment Testing Southwest		Accreditations Required (See note): State - Hawaii		Job #: 380-113718-1	
Address: 2841 Dow Avenue, Suite 100		Due Date Requested: 10/11/2024		Preservation Codes:	
City: Tustin		TAT Requested (days):			
State, Zip: CA, 92780		PO #:			
Phone: 714-895-5494(Tel)		WO #:			
Email:		Project #:			
Project Name: RED-HILL		SOW#:			
Site: Honolulu BWS Sites					

Sample Identification	Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, S=Solid, O=Other)	Field Filled Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016B DRO LL CS/3510C LL HNL Ranges: C10-C24/C36/C8-C18	9016B GRO LL/L6030C (MOD) GRO	625.1 SIM/625 Prep (MOD) Extended PAH List	626.1/625 Prep (MOD) Tentatively Identified Compounds (Hold)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
AIEA GULCH WELLS PUMP 2 (380-113718-1)		9/16/24	10:36 Hawaiian	G	Water	X	X	X	X	X			7	Initial volume (500ml) and final volume (2ml). MRLs are needed.
TB: AIEA GULCH WELLS PUMP 2 (380-113719-2)		9/16/24	10:38 Hawaiian	G	Water			X					2	MRLs are needed.
AIEA WELLS PUMPS 1&2 (260) P2 (380-113718-3)		9/16/24	10:59 Hawaiian	G	Water	X	X	X	X	X			7	Initial volume (500ml) and final volume (2ml). MRLs are needed.
TB: AIEA WELLS PUMPS 1&2 (260) P2 (380-113718-4)		9/16/24	10:59 Hawaiian	G	Water	X	X	X	X	X			2	MRLs are needed.

380-113718 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical LLC.

Possible Hazard Identification
 Unconfirmed
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Deliverable Requested: I II III IV Other (specify) _____
 Primary Deliverable Rank: 2

Empty Kit Relinquished by: _____ Date: _____ Time: _____
 Relinquished by: _____ Date/Time: 9/19/24 1200 Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: 2.0 / 2.0 902
 Custody Seal Intact: Yes No
 Custody Seal No. _____



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-113718-1

SDG Number: Weekly

Login Number: 113718

List Number: 1

Creator: Do, Michelle

List Source: Eurofins Eaton Analytical Pomona

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



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-113718-1

SDG Number: Weekly

Login Number: 113718

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 09/19/24 01:58 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	2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

