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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
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JOB DESCRIPTION

RED-HILL
Weekly
RUSH Weekly Red Hill

JOB NUMBER

380-108692-1

Eurofins Eaton Analytical Pomona

Job Notes

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

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

Compliance Statement

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

Authorization



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Definitions/Glossary

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

Job ID: 380-108692-1
SDG: Weekly

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*3	ISTD response or retention time outside acceptable limits.
^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.
S1-	Surrogate recovery exceeds control limits, low biased.

GC/MS Semi VOA TICs

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

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

Definitions/Glossary

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

Job ID: 380-108692-1
SDG: Weekly

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

- 1
- 2
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Case Narrative

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

Job ID: 380-108692-1

Job ID: 380-108692-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-108692-1

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

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

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

Receipt

The samples were received on 8/14/2024 9:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.3°C, 2.2°C, 3.2°C and 3.6°C.

GC/MS Semi VOA

Method 625.1 SIM: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-471988 and analytical batch 570-472524 recovered outside control limits for multiple compounds. The LCS/LCSD was re-prep/re-run. The LCS/LCSD failed low on 2nd attempt. The HT had expired therefore, no re-extraction. The data excluded due to this QC failure.

Method 525.2: The laboratory control sample (LCS) for preparation batch 380-104031 and analytical batch 380-104204 recovered below acceptance limits for Anthracene. There was insufficient sample to perform a re-extraction; therefore, the data have been excluded due to this QC failure.

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

Gasoline Range Organics

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

Diesel Range Organics

Method 8015B_DRO_LL_CS: The method reporting limit check (MRL) for preparation batch 570-471628 and analytical batch 570-473675 recovered outside control limits for the following analytes: C10-C28. These analytes were biased high in the MRL and were not detected in the associated samples; therefore, the data have been reported.

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

Eurofins Eaton Analytical Pomona

Detection Summary

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

Job ID: 380-108692-1
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-108692-1

No Detections.

Client Sample ID: TB:AIEA GULCH WELLS P2 (331-202-TP072)

Lab Sample ID: 380-108692-2

No Detections.

**Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
(331-203-TP400)**

Lab Sample ID: 380-108692-3

No Detections.

**Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260)
(331-203-TP400)**

Lab Sample ID: 380-108692-4

No Detections.

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This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-108692-1

Date Collected: 08/12/24 10:31

Matrix: Drinking Water

Date Received: 08/14/24 09:38

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
2,4'-DDD	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
2,4'-DDE	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
2,4'-DDT	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
2-Methylnaphthalene	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
4,4'-DDD	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
4,4'-DDE	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
4,4'-DDT	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Acenaphthene	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Acenaphthylene	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Acetochlor	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Alachlor	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
alpha-BHC	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
alpha-Chlordane	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Atrazine	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Benz(a)anthracene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Benzo[a]pyrene	<0.019		0.019	ug/L		08/16/24 14:30	08/18/24 10:14	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		08/16/24 14:30	08/18/24 10:14	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		08/16/24 14:30	08/18/24 10:14	1
beta-BHC	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		08/16/24 14:30	08/18/24 10:14	1
Bromacil	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Butachlor	<0.048	^3+	0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Butylbenzylphthalate	<0.48		0.48	ug/L		08/16/24 14:30	08/18/24 10:14	1
Chlorobenzilate	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Chloroneb	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Chlorpyrifos	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Chrysene	<0.019		0.019	ug/L		08/16/24 14:30	08/18/24 10:14	1
delta-BHC	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		08/16/24 14:30	08/18/24 10:14	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Dieldrin	<0.0097		0.0097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Diethylphthalate	<0.48		0.48	ug/L		08/16/24 14:30	08/18/24 10:14	1
Dimethylphthalate	<0.48		0.48	ug/L		08/16/24 14:30	08/18/24 10:14	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		08/16/24 14:30	08/18/24 10:14	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Endosulfan sulfate	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Endrin	<0.0097		0.0097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Endrin aldehyde	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
EPTC	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Fluoranthene	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1

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Client Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-108692-1

Date Collected: 08/12/24 10:31

Matrix: Drinking Water

Date Received: 08/14/24 09:38

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		08/16/24 14:30	08/18/24 10:14	1
gamma-Chlordane	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Heptachlor	<0.0097		0.0097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Hexachlorobenzene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Isophorone	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Lindane	<0.0097	^3+	0.0097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Malathion	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Methoxychlor	<0.048	^3+	0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Metolachlor	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Molinate	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Naphthalene	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Parathion	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Phenanthrene	<0.039		0.039	ug/L		08/16/24 14:30	08/18/24 10:14	1
Propachlor	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Pyrene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Simazine	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Terbacil	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Terbutylazine	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Thiobencarb	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		08/16/24 14:30	08/18/24 10:14	1
trans-Nonachlor	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 10:14	1
Trifluralin	<0.097		0.097	ug/L		08/16/24 14:30	08/18/24 10:14	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	08/16/24 14:30	08/18/24 10:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	97		70 - 130	08/16/24 14:30	08/18/24 10:14	1
Perylene-d12	99		70 - 130	08/16/24 14:30	08/18/24 10:14	1
Triphenylphosphate	108		70 - 130	08/16/24 14:30	08/18/24 10:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			08/19/24 19:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		38 - 134		08/19/24 19:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<27		27	ug/L		08/16/24 14:30	08/23/24 13:40	1
Motor Oil Range Organics [C24-C36]	<27		27	ug/L		08/16/24 14:30	08/23/24 13:40	1
C8-C18	<27		27	ug/L		08/16/24 14:30	08/23/24 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	93		60 - 130	08/16/24 14:30	08/23/24 13:40	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

Client Sample ID: TB:AIEA GULCH WELLS P2 (331-202-TP072)

Lab Sample ID: 380-108692-2

Date Collected: 08/12/24 10:31

Matrix: Water

Date Received: 08/14/24 09:38

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			08/19/24 16:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		38 - 134				08/19/24 16:07	1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)

Lab Sample ID: 380-108692-3

Date Collected: 08/12/24 10:54

Matrix: Drinking Water

Date Received: 08/14/24 09:38

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
2,4'-DDD	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
2,4'-DDE	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
2,4'-DDT	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
2,4-Dinitrotoluene	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
2,6-Dinitrotoluene	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
2-Methylnaphthalene	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
4,4'-DDD	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
4,4'-DDE	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
4,4'-DDT	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Acenaphthene	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Acenaphthylene	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Acetochlor	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Alachlor	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
alpha-BHC	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
alpha-Chlordane	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Anthracene	<0.019		0.019	ug/L		08/19/24 11:50	08/21/24 12:44	1
Atrazine	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Benz(a)anthracene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Benzo[a]pyrene	<0.019		0.019	ug/L		08/16/24 14:30	08/18/24 15:45	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		08/16/24 14:30	08/18/24 15:45	1
Benzo[g,h,i]perylene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		08/16/24 14:30	08/18/24 15:45	1
beta-BHC	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		08/16/24 14:30	08/18/24 15:45	1
Bromacil	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Butachlor	<0.048	^3+	0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Butylbenzylphthalate	<0.48		0.48	ug/L		08/16/24 14:30	08/18/24 15:45	1
Chlorobenzilate	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Chloroneb	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Chlorothalonil (Draconil, Bravo)	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Chlorpyrifos	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Chrysene	<0.019		0.019	ug/L		08/16/24 14:30	08/18/24 15:45	1
delta-BHC	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		08/16/24 14:30	08/18/24 15:45	1
Dibenz(a,h)anthracene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Diclorvos (DDVP)	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Dieldrin	<0.0096		0.0096	ug/L		08/16/24 14:30	08/18/24 15:45	1

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Client Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

**Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
(331-203-TP400)**

Lab Sample ID: 380-108692-3

Date Collected: 08/12/24 10:54

Matrix: Drinking Water

Date Received: 08/14/24 09:38

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diethylphthalate	<0.48		0.48	ug/L		08/16/24 14:30	08/18/24 15:45	1
Dimethylphthalate	<0.48		0.48	ug/L		08/16/24 14:30	08/18/24 15:45	1
Di-n-butyl phthalate	<0.96		0.96	ug/L		08/16/24 14:30	08/18/24 15:45	1
Di-n-octyl phthalate	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Endosulfan I (Alpha)	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Endosulfan II (Beta)	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Endosulfan sulfate	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Endrin	<0.0096		0.0096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Endrin aldehyde	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
EPTC	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Fluoranthene	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Fluorene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
gamma-Chlordane	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Heptachlor	<0.0096		0.0096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Heptachlor epoxide (isomer B)	<0.0096		0.0096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Hexachlorobenzene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Hexachlorocyclopentadiene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Indeno[1,2,3-cd]pyrene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Isophorone	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Lindane	<0.0096	^3+	0.0096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Malathion	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Methoxychlor	<0.048	^3+	0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Metolachlor	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Molinate	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Naphthalene	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Parathion	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Pendimethalin (Penoxaline)	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Phenanthrene	<0.039		0.039	ug/L		08/16/24 14:30	08/18/24 15:45	1
Propachlor	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Pyrene	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Simazine	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Terbacil	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Terbutylazine	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Thiobencarb	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		08/16/24 14:30	08/18/24 15:45	1
trans-Nonachlor	<0.048		0.048	ug/L		08/16/24 14:30	08/18/24 15:45	1
Trifluralin	<0.096		0.096	ug/L		08/16/24 14:30	08/18/24 15:45	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Aldrin	0.011		ug/L		6.36	309-00-2	08/16/24 14:30	08/18/24 15:45	1
Hexazinone	0.13		ug/L		8.15	51235-04-2	08/16/24 14:30	08/18/24 15:45	1
Tentatively Identified Compound	None		ug/L			N/A	08/16/24 14:30	08/18/24 15:45	1
Tentatively Identified Compound	None		ug/L			N/A	08/19/24 11:50	08/21/24 12:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	93		70 - 130	08/16/24 14:30	08/18/24 15:45	1
2-Nitro-m-xylene	100		70 - 130	08/19/24 11:50	08/21/24 12:44	1
Perylene-d12	100		70 - 130	08/16/24 14:30	08/18/24 15:45	1
Perylene-d12	104		70 - 130	08/19/24 11:50	08/21/24 12:44	1

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Client Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

**Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
(331-203-TP400)**

Lab Sample ID: 380-108692-3

Date Collected: 08/12/24 10:54

Matrix: Drinking Water

Date Received: 08/14/24 09:38

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Triphenylphosphate	108		70 - 130	08/16/24 14:30	08/18/24 15:45	1
Triphenylphosphate	107		70 - 130	08/19/24 11:50	08/21/24 12:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			08/19/24 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		38 - 134		08/19/24 20:01	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		08/16/24 14:30	08/23/24 14:01	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		08/16/24 14:30	08/23/24 14:01	1
C8-C18	<26		26	ug/L		08/16/24 14:30	08/23/24 14:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	96		60 - 130	08/16/24 14:30	08/23/24 14:01	1

**Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260)
(331-203-TP400)**

Lab Sample ID: 380-108692-4

Date Collected: 08/12/24 10:54

Matrix: Water

Date Received: 08/14/24 09:38

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			08/19/24 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		38 - 134		08/19/24 16:31	1

Action Limit Summary

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

Job ID: 380-108692-1
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-108692-1

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	^3+	ug/L	40	0.048	525.2	Total/NA
Simazine	<0.048		ug/L	4	0.048	525.2	Total/NA

**Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
(331-203-TP400)**

Lab Sample ID: 380-108692-3

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	<0.048		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	<0.0096		ug/L	2	0.0096	525.2	Total/NA
Heptachlor	<0.0096		ug/L	0.4	0.0096	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0096		ug/L	0.2	0.0096	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	<0.0096	^3+	ug/L	0.2	0.0096	525.2	Total/NA
Methoxychlor	<0.048	^3+	ug/L	40	0.048	525.2	Total/NA
Simazine	<0.048		ug/L	4	0.048	525.2	Total/NA

Surrogate Summary

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

Job ID: 380-108692-1
SDG: Weekly

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-108692-1	AIEA GULCH WELLS PUMP 2 (97	99	108
380-108692-1 MS	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	96	100	114
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	93	100	108
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	100	104	107

Surrogate Legend

2NMX = 2-Nitro-m-xylene

PRY = Perylene-d12

TPP = Triphenylphosphate

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	PRY (70-130)	TPP (70-130)
380-108450-BG-1-A MS	Matrix Spike	100	106	110
380-108450-BH-1-A MSD	Matrix Spike Duplicate	97	101	107
380-108577-R-1-A DU	Duplicate	101	16 S1- *3	112
LCS 380-104031/23-A	Lab Control Sample	96	99	117
LCS 380-104353/23-A	Lab Control Sample	100	105	113
MB 380-104031/21-A	Method Blank	96	98	108
MB 380-104353/21-A	Method Blank	100	98	104
MRL 380-104031/22-A	Lab Control Sample	96	97	112
MRL 380-104353/22-A	Lab Control Sample	98	97	104

Surrogate Legend

2NMX = 2-Nitro-m-xylene

PRY = Perylene-d12

TPP = Triphenylphosphate

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB1 (38-134)
380-108692-1	AIEA GULCH WELLS PUMP 2 (77
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	76

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Surrogate Summary

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

Job ID: 380-108692-1
 SDG: Weekly

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-108692-2	TB:AIEA GULCH WELLS P2 (331-203-TP400)	76
380-108692-4	TB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	83
380-108696-C-3 MS	Matrix Spike	85
380-108696-C-3 MSD	Matrix Spike Duplicate	88
LCS 570-472071/3	Lab Control Sample	83
LCSD 570 472071/4	Lab Control Sample Dup	83
MB 570-472071/6	Method Blank	80
MRL 570-472071/5	Lab Control Sample	74

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-108692-1	AIEA GULCH WELLS PUMP 2 (331-203-TP400)	93
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	96

Surrogate Legend

OTCSN = n-Octacosane (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-108696-B-3-A MS	Matrix Spike	97
380-108696-B-3-B MSD	Matrix Spike Duplicate	99
LCS 570-471628/2-A	Lab Control Sample	95
LCSD 570-471628/3-A	Lab Control Sample Dup	99
MB 570-471628/1-A	Method Blank	94
MRL 570-471628/4-A	Lab Control Sample	92

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

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

Job ID: 380-108692-1
 SDG: Weekly

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

Lab Sample ID: MB 380-104031/21-A
Matrix: Water
Analysis Batch: 104204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 104031

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
2,4'-DDD	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
2,4'-DDE	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
2,4'-DDT	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
2-Methylnaphthalene	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
4,4'-DDD	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
4,4'-DDE	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
4,4'-DDT	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Acenaphthene	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Acenaphthylene	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Acetochlor	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Alachlor	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
alpha-BHC	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
alpha-Chlordane	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Anthracene	<0.019		0.019	ug/L		08/16/24 12:40	08/18/24 09:53	1
Atrazine	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Benz(a)anthracene	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Benzo[a]pyrene	<0.019		0.019	ug/L		08/16/24 12:40	08/18/24 09:53	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		08/16/24 12:40	08/18/24 09:53	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		08/16/24 12:40	08/18/24 09:53	1
beta-BHC	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		08/16/24 12:40	08/18/24 09:53	1
Bromacil	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Butachlor	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Butylbenzylphthalate	<0.49		0.49	ug/L		08/16/24 12:40	08/18/24 09:53	1
Chlorobenzilate	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Chloroneb	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Chlorpyrifos	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Chrysene	<0.019		0.019	ug/L		08/16/24 12:40	08/18/24 09:53	1
delta-BHC	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		08/16/24 12:40	08/18/24 09:53	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Dieldrin	<0.0097		0.0097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Diethylphthalate	<0.49		0.49	ug/L		08/16/24 12:40	08/18/24 09:53	1
Dimethylphthalate	<0.49		0.49	ug/L		08/16/24 12:40	08/18/24 09:53	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		08/16/24 12:40	08/18/24 09:53	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Endosulfan sulfate	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Endrin	<0.0097		0.0097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Endrin aldehyde	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
EPTC	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: MB 380-104031/21-A
Matrix: Water
Analysis Batch: 104204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 104031

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Fluorene	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
gamma-Chlordane	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Heptachlor	<0.0097		0.0097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Hexachlorobenzene	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Isophorone	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Lindane	<0.0097		0.0097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Malathion	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Methoxychlor	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Metolachlor	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Molinate	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Naphthalene	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Parathion	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Phenanthrene	<0.039		0.039	ug/L		08/16/24 12:40	08/18/24 09:53	1
Propachlor	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Pyrene	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Simazine	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Terbacil	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Terbutylazine	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Thiobencarb	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		08/16/24 12:40	08/18/24 09:53	1
trans-Nonachlor	<0.049		0.049	ug/L		08/16/24 12:40	08/18/24 09:53	1
Trifluralin	<0.097		0.097	ug/L		08/16/24 12:40	08/18/24 09:53	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.543	T J	ug/L		9.81	N/A	08/16/24 12:40	08/18/24 09:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	96		70 - 130	08/16/24 12:40	08/18/24 09:53	1
Perylene-d12	98		70 - 130	08/16/24 12:40	08/18/24 09:53	1
Triphenylphosphate	108		70 - 130	08/16/24 12:40	08/18/24 09:53	1

Lab Sample ID: LCS 380-104031/23-A
Matrix: Water
Analysis Batch: 104204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.95	1.94		ug/L		99	70 - 130
2,4'-DDD	1.95	2.20		ug/L		113	70 - 130
2,4'-DDE	1.95	2.07		ug/L		106	70 - 130
2,4'-DDT	1.95	1.92		ug/L		98	70 - 130
2,4-Dinitrotoluene	1.95	1.97		ug/L		101	70 - 130
2,6-Dinitrotoluene	1.95	1.92		ug/L		98	70 - 130
2-Methylnaphthalene	1.95	1.95		ug/L		100	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: LCS 380-104031/23-A
Matrix: Water
Analysis Batch: 104204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	1.95	2.01		ug/L		103	70 - 130
4,4'-DDE	1.95	2.19		ug/L		112	70 - 130
4,4'-DDT	1.95	1.89		ug/L		97	70 - 130
Acenaphthene	1.95	1.97		ug/L		101	70 - 130
Acenaphthylene	1.95	1.99		ug/L		102	70 - 130
Acetochlor	1.95	2.26		ug/L		116	70 - 130
Alachlor	1.95	2.30		ug/L		118	70 - 130
alpha-BHC	1.95	2.11		ug/L		108	70 - 130
alpha-Chlordane	1.95	2.19		ug/L		112	70 - 130
Atrazine	1.95	2.12		ug/L		109	70 - 130
Benz(a)anthracene	1.95	1.94		ug/L		99	70 - 130
Benzo[a]pyrene	1.95	1.55		ug/L		80	70 - 130
Benzo[b]fluoranthene	1.95	2.16		ug/L		111	70 - 130
Benzo[g,h,i]perylene	1.95	1.91		ug/L		98	70 - 130
Benzo[k]fluoranthene	1.95	2.13		ug/L		109	70 - 130
beta-BHC	1.95	2.15		ug/L		110	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	1.74		ug/L		89	70 - 130
Bromacil	1.95	2.05		ug/L		105	70 - 130
Butachlor	1.95	2.19		ug/L		112	70 - 130
Butylbenzylphthalate	1.95	2.22		ug/L		114	70 - 130
Chlorobenzilate	1.95	2.14		ug/L		110	70 - 130
Chloroneb	1.95	2.04		ug/L		104	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.10		ug/L		108	70 - 130
Chlorpyrifos	1.95	2.09		ug/L		107	70 - 130
Chrysene	1.95	2.13		ug/L		109	70 - 130
delta-BHC	1.95	2.16		ug/L		111	70 - 130
Di(2-ethylhexyl)adipate	1.95	1.85		ug/L		95	70 - 130
Dibenz(a,h)anthracene	1.95	1.90		ug/L		97	70 - 130
Diclorvos (DDVP)	1.95	1.91		ug/L		98	70 - 130
Dieldrin	1.95	2.09		ug/L		107	70 - 130
Diethylphthalate	1.95	2.15		ug/L		110	70 - 130
Dimethylphthalate	1.95	2.04		ug/L		105	70 - 130
Di-n-butyl phthalate	3.90	4.22		ug/L		108	70 - 130
Di-n-octyl phthalate	1.95	1.75		ug/L		89	70 - 130
Endosulfan I (Alpha)	1.95	2.07		ug/L		106	70 - 130
Endosulfan II (Beta)	1.95	2.23		ug/L		114	70 - 130
Endosulfan sulfate	1.95	2.08		ug/L		106	70 - 130
Endrin	1.95	2.09		ug/L		107	70 - 130
Endrin aldehyde	1.95	2.18		ug/L		112	60 - 130
EPTC	1.95	2.06		ug/L		105	70 - 130
Fluoranthene	1.95	2.33		ug/L		119	70 - 130
Fluorene	1.95	2.11		ug/L		108	70 - 130
gamma-Chlordane	1.95	2.19		ug/L		112	70 - 130
Heptachlor	1.95	2.02		ug/L		103	70 - 130
Heptachlor epoxide (isomer B)	1.95	2.41		ug/L		123	70 - 130
Hexachlorobenzene	1.95	2.02		ug/L		104	70 - 130
Hexachlorocyclopentadiene	1.95	1.70		ug/L		87	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	1.91		ug/L		98	70 - 130
Isophorone	1.95	1.93		ug/L		99	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: LCS 380-104031/23-A
Matrix: Water
Analysis Batch: 104204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lindane	1.95	2.00		ug/L		103	70 - 130
Malathion	1.95	2.17		ug/L		111	70 - 130
Methoxychlor	1.95	2.15		ug/L		110	70 - 130
Metolachlor	1.95	2.33		ug/L		119	70 - 130
Molinate	1.95	2.12		ug/L		109	70 - 130
Naphthalene	1.95	1.86		ug/L		95	70 - 130
Parathion	1.95	2.19		ug/L		112	70 - 130
Pendimethalin (Penoxaline)	1.95	2.14		ug/L		110	70 - 130
Phenanthrene	1.95	1.99		ug/L		102	70 - 130
Propachlor	1.95	2.15		ug/L		110	70 - 130
Pyrene	1.95	2.06		ug/L		106	70 - 130
Simazine	1.95	2.10		ug/L		108	70 - 130
Terbacil	1.95	2.12		ug/L		109	70 - 130
Terbutylazine	1.95	2.12		ug/L		109	70 - 130
Thiobencarb	1.95	2.31		ug/L		118	70 - 130
trans-Nonachlor	1.95	2.17		ug/L		111	70 - 130
Trifluralin	1.95	2.12		ug/L		108	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	99		70 - 130
Triphenylphosphate	117		70 - 130

Lab Sample ID: MRL 380-104031/22-A
Matrix: Water
Analysis Batch: 104204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104031

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0972	0.101		ug/L		103	50 - 150
2,4'-DDD	0.0972	0.0994		ug/L		102	50 - 150
2,4'-DDE	0.0972	0.105		ug/L		108	50 - 150
2,4'-DDT	0.0972	0.118		ug/L		122	50 - 150
2,4-Dinitrotoluene	0.0972	0.108		ug/L		111	50 - 150
2,6-Dinitrotoluene	0.0972	0.109		ug/L		112	50 - 150
2-Methylnaphthalene	0.0972	0.0903	J	ug/L		93	50 - 150
4,4'-DDD	0.0972	0.125		ug/L		128	50 - 150
4,4'-DDE	0.0972	0.109		ug/L		112	50 - 150
4,4'-DDT	0.0972	0.117		ug/L		120	50 - 150
Acenaphthene	0.0972	0.0971		ug/L		100	50 - 150
Acenaphthylene	0.0972	0.0946	J	ug/L		97	50 - 150
Acetochlor	0.0972	0.117		ug/L		121	50 - 150
Alachlor	0.0486	0.0548		ug/L		113	50 - 150
alpha-BHC	0.0972	0.108		ug/L		111	50 - 150
alpha-Chlordane	0.0243	0.0322	J	ug/L		133	50 - 150
Atrazine	0.0486	0.0655		ug/L		135	50 - 150
Benz(a)anthracene	0.0486	0.0585		ug/L		120	50 - 150
Benzo[a]pyrene	0.0194	0.0198		ug/L		102	50 - 150
Benzo[b]fluoranthene	0.0194	0.0184	J	ug/L		94	50 - 150

QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: MRL 380-104031/22-A
Matrix: Water
Analysis Batch: 104204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104031

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[g,h,i]perylene	0.0486	0.0456	J	ug/L		94	50 - 150
Benzo[k]fluoranthene	0.0194	0.0173	J	ug/L		89	50 - 150
beta-BHC	0.0972	0.113		ug/L		116	50 - 150
Bis(2-ethylhexyl) phthalate	0.583	0.570	J	ug/L		98	50 - 150
Bromacil	0.0972	0.125		ug/L		129	50 - 150
Butachlor	0.0486	0.0761	^3+	ug/L		156	50 - 150
Butylbenzylphthalate	0.486	0.537		ug/L		110	50 - 150
Chlorobenzilate	0.0972	0.111		ug/L		114	50 - 150
Chloroneb	0.0972	0.115		ug/L		118	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0972	0.112		ug/L		115	50 - 150
Chlorpyrifos	0.0486	0.0726		ug/L		149	50 - 150
Chrysene	0.0194	0.0217		ug/L		111	50 - 150
delta-BHC	0.0972	0.112		ug/L		115	50 - 150
Di(2-ethylhexyl)adipate	0.583	0.633		ug/L		108	50 - 150
Dibenz(a,h)anthracene	0.0486	0.0464	J	ug/L		95	50 - 150
Diclorvos (DDVP)	0.0486	0.0432	J	ug/L		89	50 - 150
Dieldrin	0.00972	0.0142		ug/L		146	50 - 150
Diethylphthalate	0.486	0.535		ug/L		110	50 - 150
Dimethylphthalate	0.486	0.492		ug/L		101	50 - 150
Di-n-butyl phthalate	0.486	0.573	J	ug/L		118	49 - 243
Di-n-octyl phthalate	0.0972	0.111		ug/L		114	50 - 150
Endosulfan I (Alpha)	0.0972	0.104		ug/L		107	50 - 150
Endosulfan II (Beta)	0.0972	0.119		ug/L		122	50 - 150
Endosulfan sulfate	0.0972	0.113		ug/L		116	50 - 150
Endrin	0.00972	0.0140		ug/L		144	50 - 150
Endrin aldehyde	0.0972	0.133		ug/L		137	50 - 150
EPTC	0.0972	0.0908	J	ug/L		93	50 - 150
Fluoranthene	0.0972	0.112		ug/L		116	50 - 150
Fluorene	0.0486	0.0492		ug/L		101	50 - 150
gamma-Chlordane	0.0243	0.0312	J	ug/L		128	50 - 150
Heptachlor	0.00972	0.0113		ug/L		116	50 - 150
Heptachlor epoxide (isomer B)	0.00972	0.0114		ug/L		117	50 - 150
Hexachlorobenzene	0.0486	0.0466	J	ug/L		96	50 - 150
Hexachlorocyclopentadiene	0.0486	<0.037		ug/L		71	50 - 150
Indeno[1,2,3-cd]pyrene	0.0486	0.0434	J	ug/L		89	50 - 150
Isophorone	0.0972	0.121		ug/L		125	50 - 150
Lindane	0.00972	0.0162	^3+	ug/L		166	50 - 150
Malathion	0.0972	0.120		ug/L		123	50 - 150
Methoxychlor	0.0486	0.0738	^3+	ug/L		152	50 - 150
Metolachlor	0.0486	0.0621		ug/L		128	50 - 150
Molinate	0.0972	0.105		ug/L		108	50 - 150
Naphthalene	0.0972	0.0969	J	ug/L		100	50 - 150
Parathion	0.0972	0.0998		ug/L		103	50 - 150
Pendimethalin (Penoxaline)	0.0972	0.118		ug/L		121	50 - 150
Phenanthrene	0.0389	0.0452		ug/L		116	50 - 150
Propachlor	0.0486	0.0528		ug/L		109	50 - 150
Pyrene	0.0486	0.0668		ug/L		137	50 - 150
Simazine	0.0486	0.0699		ug/L		144	50 - 150
Terbacil	0.0972	0.122		ug/L		125	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: MRL 380-104031/22-A
Matrix: Water
Analysis Batch: 104204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104031

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Terbutylazine	0.0972	0.116		ug/L		120	50 - 150
Thiobencarb	0.0972	0.115		ug/L		118	50 - 150
trans-Nonachlor	0.0243	0.0311	J	ug/L		128	50 - 150
Trifluralin	0.0972	0.116		ug/L		119	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	112		70 - 130

Lab Sample ID: 380-108692-1 MS
Matrix: Drinking Water
Analysis Batch: 104204

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA
Prep Batch: 104031

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.97	1.95		ug/L		99	70 - 130
2,4'-DDD	<0.097		1.97	2.21		ug/L		112	70 - 130
2,4'-DDE	<0.097		1.97	2.13		ug/L		108	70 - 130
2,4'-DDT	<0.097		1.97	2.03		ug/L		103	70 - 130
2,4-Dinitrotoluene	<0.097		1.97	1.97		ug/L		100	70 - 130
2,6-Dinitrotoluene	<0.097		1.97	1.91		ug/L		97	70 - 130
2-Methylnaphthalene	<0.097		1.97	1.95		ug/L		99	70 - 130
4,4'-DDD	<0.097		1.97	2.02		ug/L		103	70 - 130
4,4'-DDE	<0.097		1.97	2.29		ug/L		117	70 - 130
4,4'-DDT	<0.097		1.97	2.01		ug/L		102	70 - 130
Acenaphthene	<0.097		1.97	1.98		ug/L		101	70 - 130
Acenaphthylene	<0.097		1.97	2.08		ug/L		106	70 - 130
Acetochlor	<0.097		1.97	2.27		ug/L		115	70 - 130
Alachlor	<0.048		1.97	2.31		ug/L		117	70 - 130
alpha-BHC	<0.097		1.97	2.10		ug/L		107	70 - 130
alpha-Chlordane	<0.048		1.97	2.21		ug/L		112	70 - 130
Atrazine	<0.048		1.97	2.09		ug/L		106	70 - 130
Benz(a)anthracene	<0.048		1.97	2.17		ug/L		110	70 - 130
Benzo[a]pyrene	<0.019		1.97	1.97		ug/L		100	70 - 130
Benzo[b]fluoranthene	<0.019		1.97	2.14		ug/L		109	70 - 130
Benzo[g,h,i]perylene	<0.048		1.97	2.06		ug/L		104	70 - 130
Benzo[k]fluoranthene	<0.019		1.97	2.30		ug/L		117	70 - 130
beta-BHC	<0.097		1.97	2.12		ug/L		108	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.97	1.88		ug/L		95	70 - 130
Bromacil	<0.097		1.97	2.03		ug/L		101	70 - 130
Butachlor	<0.048	^3+	1.97	2.21		ug/L		112	70 - 130
Butylbenzylphthalate	<0.48		1.97	2.19		ug/L		111	70 - 130
Chlorobenzilate	<0.097		1.97	2.11		ug/L		107	70 - 130
Chloroneb	<0.097		1.97	2.07		ug/L		105	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.97	2.12		ug/L		107	70 - 130
Chlorpyrifos	<0.048		1.97	2.08		ug/L		106	70 - 130
Chrysene	<0.019		1.97	2.17		ug/L		110	70 - 130
delta-BHC	<0.097		1.97	2.07		ug/L		105	70 - 130

QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: 380-108692-1 MS

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Matrix: Drinking Water

Prep Type: Total/NA

Analysis Batch: 104204

Prep Batch: 104031

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Di(2-ethylhexyl)adipate	<0.58		1.97	2.08		ug/L		106	70 - 130
Dibenz(a,h)anthracene	<0.048		1.97	1.98		ug/L		100	70 - 130
Diclorvos (DDVP)	<0.048		1.97	1.81		ug/L		92	70 - 130
Dieldrin	<0.0097		1.97	2.12		ug/L		108	70 - 130
Diethylphthalate	<0.48		1.97	2.17		ug/L		110	70 - 130
Dimethylphthalate	<0.48		1.97	2.07		ug/L		105	70 - 130
Di-n-butyl phthalate	<0.97		3.94	4.28		ug/L		109	70 - 130
Di-n-octyl phthalate	<0.097		1.97	1.80		ug/L		92	70 - 130
Endosulfan I (Alpha)	<0.097		1.97	2.08		ug/L		106	70 - 130
Endosulfan II (Beta)	<0.097		1.97	2.24		ug/L		114	70 - 130
Endosulfan sulfate	<0.097		1.97	2.06		ug/L		105	70 - 130
Endrin	<0.0097		1.97	2.02		ug/L		103	70 - 130
Endrin aldehyde	<0.097		1.97	2.11		ug/L		107	60 - 130
EPTC	<0.097		1.97	2.12		ug/L		107	70 - 130
Fluoranthene	<0.097		1.97	2.34		ug/L		119	70 - 130
Fluorene	<0.048		1.97	2.10		ug/L		107	70 - 130
gamma-Chlordane	<0.048		1.97	2.22		ug/L		113	70 - 130
Heptachlor	<0.0097		1.97	2.08		ug/L		106	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.97	2.42		ug/L		123	70 - 130
Hexachlorobenzene	<0.048		1.97	2.06		ug/L		105	70 - 130
Hexachlorocyclopentadiene	<0.048		1.97	1.73		ug/L		88	70 - 130
Indeno[1,2,3-cd]pyrene	<0.048		1.97	2.12		ug/L		107	70 - 130
Isophorone	<0.097		1.97	1.95		ug/L		99	70 - 130
Lindane	<0.0097	^3+	1.97	2.02		ug/L		103	70 - 130
Malathion	<0.097		1.97	2.19		ug/L		111	70 - 130
Methoxychlor	<0.048	^3+	1.97	2.07		ug/L		105	70 - 130
Metolachlor	<0.048		1.97	2.34		ug/L		119	70 - 130
Molinate	<0.097		1.97	2.16		ug/L		109	70 - 130
Naphthalene	<0.097		1.97	1.88		ug/L		95	70 - 130
Parathion	<0.097		1.97	2.17		ug/L		110	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.97	2.14		ug/L		109	70 - 130
Phenanthrene	<0.039		1.97	2.02		ug/L		102	70 - 130
Propachlor	<0.048		1.97	2.18		ug/L		110	70 - 130
Pyrene	<0.048		1.97	2.11		ug/L		107	70 - 130
Simazine	<0.048		1.97	2.14		ug/L		109	70 - 130
Terbacil	<0.097		1.97	2.12		ug/L		107	70 - 130
Terbutylazine	<0.097		1.97	2.09		ug/L		106	70 - 130
Thiobencarb	<0.097		1.97	2.31		ug/L		117	70 - 130
trans-Nonachlor	<0.048		1.97	2.21		ug/L		112	70 - 130
Trifluralin	<0.097		1.97	2.12		ug/L		107	70 - 130

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	96		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	114		70 - 130

QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: 380-108577-R-1-A DU
Matrix: Water
Analysis Batch: 104204

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 104031

Analyte	Sample Result	Sample Qualifier	DU	DU	Unit	D	RPD	RPD Limit
			Result	Qualifier				
1-Methylnaphthalene			<0.10		ug/L			20
2,4'-DDD			<0.10		ug/L			20
2,4'-DDE			<0.10		ug/L			20
2,4'-DDT			<0.10		ug/L			20
2,4-Dinitrotoluene			<0.10		ug/L			20
2,6-Dinitrotoluene			<0.10		ug/L			20
2-Methylnaphthalene			<0.10		ug/L			20
4,4'-DDD	<0.098		<0.10		ug/L		NC	20
4,4'-DDE	<0.098		<0.10		ug/L		NC	20
4,4'-DDT	<0.098		<0.10		ug/L		NC	20
Acenaphthene	<0.098		<0.10		ug/L		NC	20
Acenaphthylene	<0.098		<0.10		ug/L		NC	20
Acetochlor			<0.10		ug/L			20
Alachlor			<0.051		ug/L			20
alpha-BHC	<0.098		<0.10		ug/L		NC	20
alpha-Chlordane			<0.051		ug/L			20
Anthracene	<0.020	*	<0.020	*	ug/L		NC	20
Atrazine			<0.051		ug/L			20
Benz(a)anthracene	<0.049		<0.051		ug/L		NC	20
Benzo[a]pyrene	<0.020		<0.020	*3	ug/L		NC	20
Benzo[b]fluoranthene	<0.020		<0.020	*3	ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.051	*3	ug/L		NC	20
Benzo[k]fluoranthene	<0.020		<0.020	*3	ug/L		NC	20
beta-BHC	<0.098		<0.10		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.61	*3	ug/L		NC	20
Bromacil			<0.10		ug/L			20
Butachlor			<0.051		ug/L			20
Butylbenzylphthalate	<0.49		<0.51		ug/L		NC	20
Chlorobenzilate			<0.10		ug/L			20
Chloroneb			<0.10		ug/L			20
Chlorothalonil (Draconil, Bravo)			<0.10		ug/L			20
Chlorpyrifos			<0.051		ug/L			20
Chrysene	<0.020		<0.020	*3	ug/L		NC	20
delta-BHC	<0.098		0.133		ug/L		NC	20
Di(2-ethylhexyl)adipate			<0.61		ug/L			20
Dibenz(a,h)anthracene	<0.049		<0.051	*3	ug/L		NC	20
Diclorvos (DDVP)			<0.051		ug/L			20
Dieldrin			0.0117		ug/L			20
Diethylphthalate	<0.49		<0.51		ug/L		NC	20
Dimethylphthalate	<0.49		<0.51		ug/L		NC	20
Di-n-butyl phthalate	<0.98		<1.0		ug/L		NC	20
Di-n-octyl phthalate	<0.098		<0.10	*3	ug/L		NC	20
Endosulfan I (Alpha)	<0.098		<0.10		ug/L		NC	20
Endosulfan II (Beta)	<0.098		<0.10		ug/L		NC	20
Endosulfan sulfate	<0.098		<0.10		ug/L		NC	20
Endrin	<0.0098		<0.010		ug/L		NC	20
Endrin aldehyde	<0.098		<0.10		ug/L		NC	20
EPTC			<0.10		ug/L			20

QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: 380-108577-R-1-A DU
Matrix: Water
Analysis Batch: 104204

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 104031

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Fluoranthene	<0.098		<0.10		ug/L		NC	20
Fluorene	<0.049		<0.051		ug/L		NC	20
gamma-Chlordane			<0.051		ug/L			20
Heptachlor			<0.010		ug/L			20
Heptachlor epoxide (isomer B)			<0.010		ug/L			20
Hexachlorobenzene	<0.049		<0.051		ug/L		NC	20
Hexachlorocyclopentadiene	<0.049		<0.051		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.049		<0.051	*3	ug/L		NC	20
Isophorone	<0.098		<0.10		ug/L		NC	20
Lindane	<0.0098	^3+	<0.010		ug/L		NC	20
Malathion			<0.10		ug/L			20
Methoxychlor			<0.051	*3	ug/L			20
Metolachlor			<0.051		ug/L			20
Molinate			<0.10		ug/L			20
Naphthalene	<0.098		<0.10		ug/L		NC	20
Parathion			<0.10		ug/L			20
Pendimethalin (Penoxaline)			<0.10		ug/L			20
Phenanthrene	<0.039		<0.041		ug/L		NC	20
Propachlor			<0.051		ug/L			20
Pyrene	<0.049		<0.051		ug/L		NC	20
Simazine			<0.051		ug/L			20
Terbacil			<0.10		ug/L			20
Terbutylazine			<0.10		ug/L			20
Thiobencarb	<0.098		<0.10		ug/L		NC	20
Total Permethrin (mixed isomers)	Missing Input		<0.20		ug/L		NC	20
trans-Nonachlor			<0.051		ug/L			20
Trifluralin			<0.10		ug/L			20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	101		70 - 130
Perylene-d12	16	S1- *3	70 - 130
Triphenylphosphate	112		70 - 130

Lab Sample ID: MB 380-104353/21-A
Matrix: Water
Analysis Batch: 104625

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 104353

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Anthracene	<0.019		0.019	ug/L		08/19/24 11:50	08/21/24 10:15	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Camphene	1.06	T J N	ug/L		2.39	79-92-5	08/19/24 11:50	08/21/24 10:15	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Nitro-m-xylene	100		70 - 130	08/19/24 11:50	08/21/24 10:15	1
Perylene-d12	98		70 - 130	08/19/24 11:50	08/21/24 10:15	1
Triphenylphosphate	104		70 - 130	08/19/24 11:50	08/21/24 10:15	1

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QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: LCS 380-104353/23-A
Matrix: Water
Analysis Batch: 104625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104353

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	105		70 - 130
Triphenylphosphate	113		70 - 130

Lab Sample ID: MRL 380-104353/22-A
Matrix: Water
Analysis Batch: 104625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104353

Surrogate	MRL MRL		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	97		70 - 130
Triphenylphosphate	104		70 - 130

Lab Sample ID: 380-108450-BG-1-A MS
Matrix: Water
Analysis Batch: 104625

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 104353

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	100		70 - 130
Perylene-d12	106		70 - 130
Triphenylphosphate	110		70 - 130

Lab Sample ID: 380-108450-BH-1-A MSD
Matrix: Water
Analysis Batch: 104625

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 104353

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	101		70 - 130
Triphenylphosphate	107		70 - 130

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

Lab Sample ID: MB 570-472071/6
Matrix: Water
Analysis Batch: 472071

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

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
GRO (C6-C10)	<10		10	ug/L			08/19/24 12:15	1
Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac		
%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	80		38 - 134		08/19/24 12:15	1		

QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: LCS 570-472071/3
Matrix: Water
Analysis Batch: 472071

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	323		ug/L		81	78 - 120
Surrogate		LCS %Recovery	LCS Qualifier				Limits
4-Bromofluorobenzene (Surr)		83					38 - 134

Lab Sample ID: LCSD 570-472071/4
Matrix: Water
Analysis Batch: 472071

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	328		ug/L		82	78 - 120	2	10
Surrogate		LCSD %Recovery	LCSD Qualifier				Limits		
4-Bromofluorobenzene (Surr)		83					38 - 134		

Lab Sample ID: MRL 570-472071/5
Matrix: Water
Analysis Batch: 472071

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	8.08	J	ug/L		81	50 - 150
Surrogate		MRL %Recovery	MRL Qualifier				Limits
4-Bromofluorobenzene (Surr)		74					38 - 134

Lab Sample ID: 380-108696-C-3 MS
Matrix: Water
Analysis Batch: 472071

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	313		ug/L		78	68 - 122
Surrogate		MS %Recovery		MS Qualifier					Limits
4-Bromofluorobenzene (Surr)		85							38 - 134

Lab Sample ID: 380-108696-C-3 MSD
Matrix: Water
Analysis Batch: 472071

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	328		ug/L		82	68 - 122	5	18

QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: 380-108696-C-3 MSD
Matrix: Water
Analysis Batch: 472071

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

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

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

Lab Sample ID: MB 570-471628/1-A
Matrix: Water
Analysis Batch: 473675

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 471628

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		08/16/24 14:29	08/23/24 12:15	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		08/16/24 14:29	08/23/24 12:15	1
C8-C18	<25		25	ug/L		08/16/24 14:29	08/23/24 12:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	94		60 - 130	08/16/24 14:29	08/23/24 12:15	1

Lab Sample ID: LCS 570-471628/2-A
Matrix: Water
Analysis Batch: 473675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 471628

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1370		ug/L		86	56 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane (Surr)	95		60 - 130

Lab Sample ID: LCSD 570-471628/3-A
Matrix: Water
Analysis Batch: 473675

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 471628

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
C10-C28	1600	1430		ug/L		90	56 - 127	4	23

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane (Surr)	99		60 - 130

Lab Sample ID: MRL 570-471628/4-A
Matrix: Water
Analysis Batch: 473675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 471628

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	0.0200	0.0863	^3+	mg/L		431	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
n-Octacosane (Surr)	92		60 - 130

QC Sample Results

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

Job ID: 380-108692-1
SDG: Weekly

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

Lab Sample ID: 380-108696-B-3-A MS
Matrix: Water
Analysis Batch: 473675

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 471628

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	<26	^3+	1720	1610		ug/L		94	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
<i>n-Octacosane (Surr)</i>	97		60 - 130						

Lab Sample ID: 380-108696-B-3-B MSD
Matrix: Water
Analysis Batch: 473675

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 471628

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26	^3+	1690	1620		ug/L		96	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
<i>n-Octacosane (Surr)</i>	99		60 - 130								

QC Association Summary

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

Job ID: 380-108692-1
SDG: Weekly

GC/MS Semi VOA

Prep Batch: 104031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-108692-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	525.2	
MB 380-104031/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-104031/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-104031/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-108692-1 MS	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	
380-108577-R-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 104204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-108692-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	104031
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	525.2	104031
MB 380-104031/21-A	Method Blank	Total/NA	Water	525.2	104031
LCS 380-104031/23-A	Lab Control Sample	Total/NA	Water	525.2	104031
MRL 380-104031/22-A	Lab Control Sample	Total/NA	Water	525.2	104031
380-108692-1 MS	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	104031
380-108577-R-1-A DU	Duplicate	Total/NA	Water	525.2	104031

Prep Batch: 104353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	525.2	
MB 380-104353/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-104353/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-104353/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-108450-BG-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-108450-BH-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	

Analysis Batch: 104625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	525.2	104353
MB 380-104353/21-A	Method Blank	Total/NA	Water	525.2	104353
LCS 380-104353/23-A	Lab Control Sample	Total/NA	Water	525.2	104353
MRL 380-104353/22-A	Lab Control Sample	Total/NA	Water	525.2	104353
380-108450-BG-1-A MS	Matrix Spike	Total/NA	Water	525.2	104353
380-108450-BH-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	104353

GC VOA

Analysis Batch: 472071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-108692-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B GRO LL	
380-108692-2	TB:AIEA GULCH WELLS P2 (331-202-TP072)	Total/NA	Water	8015B GRO LL	
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	8015B GRO LL	
380-108692-4	TB: AIEA WELLS PUMPS 1&2 (260) (331-203-TF	Total/NA	Water	8015B GRO LL	
MB 570-472071/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-472071/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-472071/4	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-472071/5	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-108696-C-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-108696-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

QC Association Summary

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

Job ID: 380-108692-1
 SDG: Weekly

GC Semi VOA

Prep Batch: 471628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-108692-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	3510C	
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	3510C	
MB 570-471628/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-471628/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-471628/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-471628/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-108696-B-3-A MS	Matrix Spike	Total/NA	Water	3510C	
380-108696-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 473675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-108692-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B	471628
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	8015B	471628
MB 570-471628/1-A	Method Blank	Total/NA	Water	8015B	471628
LCS 570-471628/2-A	Lab Control Sample	Total/NA	Water	8015B	471628
LCSD 570-471628/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	471628
MRL 570-471628/4-A	Lab Control Sample	Total/NA	Water	8015B	471628
380-108696-B-3-A MS	Matrix Spike	Total/NA	Water	8015B	471628
380-108696-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	471628



Lab Chronicle

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

Job ID: 380-108692-1
SDG: Weekly

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-108692-1

Date Collected: 08/12/24 10:31

Matrix: Drinking Water

Date Received: 08/14/24 09:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			104031	IQ42	EA POM	08/16/24 14:30
Total/NA	Analysis	525.2		1	104204	UPAC	EA POM	08/18/24 10:14
Total/NA	Analysis	8015B GRO LL		1	472071	GC3Z	EET CAL 4	08/19/24 19:37
Total/NA	Prep	3510C			471628	H6FE	EET CAL 4	08/16/24 14:30
Total/NA	Analysis	8015B		1	473675	SP9M	EET CAL 4	08/23/24 13:40

Client Sample ID: TB:AIEA GULCH WELLS P2 (331-202-TP072)

Lab Sample ID: 380-108692-2

Date Collected: 08/12/24 10:31

Matrix: Water

Date Received: 08/14/24 09:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	472071	GC3Z	EET CAL 4	08/19/24 16:07

**Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
(331-203-TP400)**

Lab Sample ID: 380-108692-3

Date Collected: 08/12/24 10:54

Matrix: Drinking Water

Date Received: 08/14/24 09:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			104031	IQ42	EA POM	08/16/24 14:30
Total/NA	Analysis	525.2		1	104204	UPAC	EA POM	08/18/24 15:45
Total/NA	Prep	525.2			104353	KRD3	EA POM	08/19/24 11:50
Total/NA	Analysis	525.2		1	104625	Q8LA	EA POM	08/21/24 12:44
Total/NA	Analysis	8015B GRO LL		1	472071	GC3Z	EET CAL 4	08/19/24 20:01
Total/NA	Prep	3510C			471628	H6FE	EET CAL 4	08/16/24 14:30
Total/NA	Analysis	8015B		1	473675	SP9M	EET CAL 4	08/23/24 14:01

**Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260)
(331-203-TP400)**

Lab Sample ID: 380-108692-4

Date Collected: 08/12/24 10:54

Matrix: Water

Date Received: 08/14/24 09:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	472071	GC3Z	EET CAL 4	08/19/24 16:31

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: 380-108692-1
SDG: Weekly

Laboratory: Eurofins Eaton Analytical Pomona

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-25
<p>The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.</p>			
Analysis Method	Prep Method	Matrix	Analyte
525.2	525.2	Drinking Water	1-Methylnaphthalene
525.2	525.2	Drinking Water	2,4'-DDD
525.2	525.2	Drinking Water	2,4'-DDE
525.2	525.2	Drinking Water	2,4'-DDT
525.2	525.2	Drinking Water	2,4-Dinitrotoluene
525.2	525.2	Drinking Water	2,6-Dinitrotoluene
525.2	525.2	Drinking Water	2-Methylnaphthalene
525.2	525.2	Drinking Water	4,4'-DDD
525.2	525.2	Drinking Water	4,4'-DDE
525.2	525.2	Drinking Water	4,4' DDT
525.2	525.2	Drinking Water	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	beta-BHC
525.2	525.2	Drinking Water	Chlorobenzilate
525.2	525.2	Drinking Water	Chloroneb
525.2	525.2	Drinking Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Drinking Water	Chlorpyrifos
525.2	525.2	Drinking Water	delta-BHC
525.2	525.2	Drinking Water	Diclorvos (DDVP)
525.2	525.2	Drinking Water	Endosulfan I (Alpha)
525.2	525.2	Drinking Water	Endosulfan II (Beta)
525.2	525.2	Drinking Water	Endosulfan sulfate
525.2	525.2	Drinking Water	Endrin aldehyde
525.2	525.2	Drinking Water	EPTC
525.2	525.2	Drinking Water	gamma-Chlordane
525.2	525.2	Drinking Water	Isophorone
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbutylazine
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor

Laboratory: Eurofins Calscience

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

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

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

Accreditation/Certification Summary

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

Job ID: 380-108692-1
SDG: Weekly

Laboratory: Eurofins Calscience (Continued)

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

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

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Method Summary

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

Job ID: 380-108692-1
SDG: Weekly

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

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

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

Sample Summary

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

Job ID: 380-108692-1
SDG: Weekly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-108692-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	08/12/24 10:31	08/14/24 09:38
380-108692-2	TB:AIEA GULCH WELLS P2 (331-202-TP072)	Water	08/12/24 10:31	08/14/24 09:38
380-108692-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	Drinking Water	08/12/24 10:54	08/14/24 09:38
380-108692-4	TB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Water	08/12/24 10:54	08/14/24 09:38

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Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-108692-1

SDG Number: Weekly

Login Number: 108692

List Number: 1

Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

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



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-108692-1

SDG Number: Weekly

Login Number: 108692

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 08/15/24 02:43 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	