

# ANALYTICAL REPORT

## PREPARED FOR

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## JOB DESCRIPTION

RED-HILL  
RUSH Weekly Red Hill

## JOB NUMBER

380-103336-1

# 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: 380-103336-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control 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.

### GC/MS Semi VOA TICs

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

### GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

## 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: 380-103336-1

**Job ID: 380-103336-1**

**Eurofins Eaton Analytical Pomona**

## Job Narrative 380-103336-1

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 7/10/2024 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 4.8°C and 4.9°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 RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-459748 and analytical batch 570-462177 recovered outside control limits for the following analytes: C10-C28.

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

### Organic Prep

Method 3510C: The following sample was spilled during extraction and could not be analyzed for 8015B\_DRO\_LL\_CS .AIEA GULCH WELLS PUMP 2 (Matrix Spike) (380-103336-1[MS])

# Detection Summary

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

Job ID: 380-103336-1

**Client Sample ID: AIEA GULCH WELLS PUMP 2**  
**PWSID Number: HI0000331**

**Lab Sample ID: 380-103336-1**

No Detections.

**Client Sample ID: TB: AIEA GULCH WELLS PUMP 2**  
**PWSID Number: HI0000331**

**Lab Sample ID: 380-103336-2**

No Detections.

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

**Lab Sample ID: 380-103336-3**

No Detections.

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

**Lab Sample ID: 380-103336-4**

No Detections.

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: 380-103336-1

**Client Sample ID: AIEA GULCH WELLS PUMP 2**

**Lab Sample ID: 380-103336-1**

Date Collected: 07/08/24 11:03

Matrix: Drinking Water

Date Received: 07/10/24 09:55

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
2,4'-DDD	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
2,4'-DDE	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
2,4'-DDT	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
2-Methylnaphthalene	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
4,4'-DDD	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
4,4'-DDE	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
4,4'-DDT	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Acenaphthene	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Acenaphthylene	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Acetochlor	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Alachlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
alpha-BHC	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
alpha-Chlordane	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Anthracene	<0.020		0.020	ug/L		07/12/24 09:10	07/12/24 16:27	1
Atrazine	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Benz(a)anthracene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Benzo[a]pyrene	<0.020		0.020	ug/L		07/12/24 09:10	07/12/24 16:27	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		07/12/24 09:10	07/12/24 16:27	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		07/12/24 09:10	07/12/24 16:27	1
beta-BHC	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		07/12/24 09:10	07/12/24 16:27	1
Bromacil	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Butachlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Butylbenzylphthalate	<0.49		0.49	ug/L		07/12/24 09:10	07/12/24 16:27	1
Chlorobenzilate	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Chloroneb	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Chlorpyrifos	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Chrysene	<0.020		0.020	ug/L		07/12/24 09:10	07/12/24 16:27	1
delta-BHC	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		07/12/24 09:10	07/12/24 16:27	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Dieldrin	<0.0098		0.0098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Diethylphthalate	<0.49		0.49	ug/L		07/12/24 09:10	07/12/24 16:27	1
Dimethylphthalate	<0.49		0.49	ug/L		07/12/24 09:10	07/12/24 16:27	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		07/12/24 09:10	07/12/24 16:27	1
Di-n-octyl phthalate	<0.098	*1	0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Endosulfan sulfate	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Endrin	<0.0098	^3+	0.0098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Endrin aldehyde	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
EPTC	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Fluoranthene	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1

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# Client Sample Results

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

Job ID: 380-103336-1

**Client Sample ID: AIEA GULCH WELLS PUMP 2**

**Lab Sample ID: 380-103336-1**

**Date Collected: 07/08/24 11:03**

**Matrix: Drinking Water**

**Date Received: 07/10/24 09:55**

**PWSID Number: HI0000331**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
gamma-Chlordane	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Heptachlor	<0.0098		0.0098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Heptachlor epoxide (isomer B)	<0.0098	^3+	0.0098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Hexachlorobenzene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Isophorone	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Lindane	<0.0098		0.0098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Malathion	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Methoxychlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Metolachlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Molinate	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Naphthalene	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Parathion	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Phenanthrene	<0.039		0.039	ug/L		07/12/24 09:10	07/12/24 16:27	1
Propachlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Pyrene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Simazine	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Terbacil	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Terbutylazine	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Thiobencarb	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		07/12/24 09:10	07/12/24 16:27	1
trans-Nonachlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 16:27	1
Trifluralin	<0.098		0.098	ug/L		07/12/24 09:10	07/12/24 16:27	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	07/12/24 09:10	07/12/24 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	99		70 - 130	07/12/24 09:10	07/12/24 16:27	1
Perylene-d12	103		70 - 130	07/12/24 09:10	07/12/24 16:27	1
Triphenylphosphate	109		70 - 130	07/12/24 09:10	07/12/24 16:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
2-Methylnaphthalene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Acenaphthene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Acenaphthylene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Anthracene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Benzo[a]anthracene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Benzo[a]pyrene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Chrysene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Fluoranthene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1

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# Client Sample Results

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

Job ID: 380-103336-1

**Client Sample ID: AIEA GULCH WELLS PUMP 2**

**Lab Sample ID: 380-103336-1**

Date Collected: 07/08/24 11:03

Matrix: Drinking Water

Date Received: 07/10/24 09:55

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Naphthalene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Phenanthrene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1
Pyrene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 12:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	101		28 - 127	07/15/24 05:12	07/19/24 12:28	1
2-Fluorobiphenyl (Surr)	78		31 - 120	07/15/24 05:12	07/19/24 12:28	1
2-Fluorophenol (Surr)	53		17 - 120	07/15/24 05:12	07/19/24 12:28	1
Nitrobenzene-d5 (Surr)	87		27 - 120	07/15/24 05:12	07/19/24 12:28	1
Phenol-d6 (Surr)	32		10 - 120	07/15/24 05:12	07/19/24 12:28	1
p-Terphenyl-d14 (Surr)	92		45 - 120	07/15/24 05:12	07/19/24 12:28	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
2-Pentenal, (E)-	49	T J N	ug/L		2.79	1576-87-0	07/15/24 05:12	07/30/24 13:29	1
Cyclohexane, 1-methyl-2-propyl-	30	T J N	ug/L		2.98	4291-79-6	07/15/24 05:12	07/30/24 13:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	67		33 - 139	07/15/24 05:12	07/30/24 13:29	1
2-Fluorobiphenyl (Surr)	81		33 - 126	07/15/24 05:12	07/30/24 13:29	1
2-Fluorophenol (Surr)	51		12 - 120	07/15/24 05:12	07/30/24 13:29	1
Nitrobenzene-d5 (Surr)	85		36 - 120	07/15/24 05:12	07/30/24 13:29	1
Phenol-d6 (Surr)	32		10 - 120	07/15/24 05:12	07/30/24 13:29	1
p-Terphenyl-d14 (Surr)	78		47 - 131	07/15/24 05:12	07/30/24 13:29	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			07/16/24 13:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		38 - 134		07/16/24 13:53	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)	<29		29	ug/L		07/12/24 09:30	07/20/24 07:16	1
Motor Oil Range Organics [C24-C36]	<29		29	ug/L		07/12/24 09:30	07/20/24 07:16	1
C8-C18	<29		29	ug/L		07/12/24 09:30	07/20/24 07:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	113		60 - 130	07/12/24 09:30	07/20/24 07:16	1

**Client Sample ID: TB: AIEA GULCH WELLS PUMP 2**

**Lab Sample ID: 380-103336-2**

Date Collected: 07/08/24 11:03

Matrix: Drinking Water

Date Received: 07/10/24 09:55

PWSID Number: HI0000331

**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			07/16/24 20:08	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-103336-1

**Client Sample ID: TB: AIEA GULCH WELLS PUMP 2**

**Lab Sample ID: 380-103336-2**

Date Collected: 07/08/24 11:03

Matrix: Drinking Water

Date Received: 07/10/24 09:55

PWSID Number: HI0000331

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		38 - 134		07/16/24 20:08	1

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

**Lab Sample ID: 380-103336-3**

Date Collected: 07/08/24 11:30

Matrix: Drinking Water

Date Received: 07/10/24 09:55

**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		07/12/24 09:10	07/12/24 17:08	1
2,4'-DDD	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
2,4'-DDE	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
2,4'-DDT	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
2-Methylnaphthalene	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
4,4'-DDD	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
4,4'-DDE	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
4,4'-DDT	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Acenaphthene	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Acenaphthylene	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Acetochlor	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Alachlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
alpha-BHC	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
alpha-Chlordane	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Anthracene	<0.019		0.019	ug/L		07/12/24 09:10	07/12/24 17:08	1
Atrazine	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Benz(a)anthracene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Benzo[a]pyrene	<0.019		0.019	ug/L		07/12/24 09:10	07/12/24 17:08	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		07/12/24 09:10	07/12/24 17:08	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		07/12/24 09:10	07/12/24 17:08	1
beta-BHC	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		07/12/24 09:10	07/12/24 17:08	1
Bromacil	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Butachlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Butylbenzylphthalate	<0.49		0.49	ug/L		07/12/24 09:10	07/12/24 17:08	1
Chlorobenzilate	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Chloroneb	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Chlorpyrifos	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Chrysene	<0.019		0.019	ug/L		07/12/24 09:10	07/12/24 17:08	1
delta-BHC	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		07/12/24 09:10	07/12/24 17:08	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Dieldrin	<0.0097		0.0097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Diethylphthalate	<0.49		0.49	ug/L		07/12/24 09:10	07/12/24 17:08	1
Dimethylphthalate	<0.49		0.49	ug/L		07/12/24 09:10	07/12/24 17:08	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		07/12/24 09:10	07/12/24 17:08	1
Di-n-octyl phthalate	<0.097	*1	0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1

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# Client Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: 380-103336-3**

Date Collected: 07/08/24 11:30

Matrix: Drinking Water

Date Received: 07/10/24 09:55

**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		07/12/24 09:10	07/12/24 17:08	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Endosulfan sulfate	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Endrin	<0.0097	^3+	0.0097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Endrin aldehyde	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
EPTC	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Fluoranthene	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Fluorene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
gamma-Chlordane	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Heptachlor	<0.0097		0.0097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Heptachlor epoxide (isomer B)	<0.0097	^3+	0.0097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Hexachlorobenzene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Isophorone	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Lindane	<0.0097		0.0097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Malathion	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Methoxychlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Metolachlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Molinate	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Naphthalene	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Parathion	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Phenanthrene	<0.039		0.039	ug/L		07/12/24 09:10	07/12/24 17:08	1
Propachlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Pyrene	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Simazine	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Terbacil	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Terbutylazine	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Thiobencarb	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		07/12/24 09:10	07/12/24 17:08	1
trans-Nonachlor	<0.049		0.049	ug/L		07/12/24 09:10	07/12/24 17:08	1
Trifluralin	<0.097		0.097	ug/L		07/12/24 09:10	07/12/24 17:08	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	07/12/24 09:10	07/12/24 17:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	104		70 - 130	07/12/24 09:10	07/12/24 17:08	1
Perylene-d12	101		70 - 130	07/12/24 09:10	07/12/24 17:08	1
Triphenylphosphate	111		70 - 130	07/12/24 09:10	07/12/24 17:08	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		07/15/24 05:12	07/19/24 13:35	1
2-Methylnaphthalene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Acenaphthene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Acenaphthylene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Anthracene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Benzo[a]anthracene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1

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# Client Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: 380-103336-3**

Date Collected: 07/08/24 11:30

Matrix: Drinking Water

Date Received: 07/10/24 09:55

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Chrysene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Fluoranthene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Fluorene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Naphthalene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Phenanthrene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1
Pyrene	<0.19		0.19	ug/L		07/15/24 05:12	07/19/24 13:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	109		28 - 127	07/15/24 05:12	07/19/24 13:35	1
2-Fluorobiphenyl (Surr)	87		31 - 120	07/15/24 05:12	07/19/24 13:35	1
2-Fluorophenol (Surr)	56		17 - 120	07/15/24 05:12	07/19/24 13:35	1
Nitrobenzene-d5 (Surr)	94		27 - 120	07/15/24 05:12	07/19/24 13:35	1
Phenol-d6 (Surr)	36		10 - 120	07/15/24 05:12	07/19/24 13:35	1
p-Terphenyl-d14 (Surr)	102		45 - 120	07/15/24 05:12	07/19/24 13:35	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
3-Ethyl-4-methyl-2-pentene	16	T J N	ug/L		2.60	19780-68-8	07/15/24 05:12	07/30/24 13:51	1
2-Pentenal, (E)-	50	T J N	ug/L		2.79	1576-87-0	07/15/24 05:12	07/30/24 13:51	1
1-Hexene, 3,3,5-trimethyl-	20	T J N	ug/L		2.87	13427-43-5	07/15/24 05:12	07/30/24 13:51	1
Cyclohexane, 1-methyl-2-propyl-	32	T J N	ug/L		2.98	4291-79-6	07/15/24 05:12	07/30/24 13:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	87		33 - 139	07/15/24 05:12	07/30/24 13:51	1
2-Fluorobiphenyl (Surr)	93		33 - 126	07/15/24 05:12	07/30/24 13:51	1
2-Fluorophenol (Surr)	56		12 - 120	07/15/24 05:12	07/30/24 13:51	1
Nitrobenzene-d5 (Surr)	87		36 - 120	07/15/24 05:12	07/30/24 13:51	1
Phenol-d6 (Surr)	34		10 - 120	07/15/24 05:12	07/30/24 13:51	1
p-Terphenyl-d14 (Surr)	92		47 - 131	07/15/24 05:12	07/30/24 13:51	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			07/16/24 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		38 - 134		07/16/24 15:12	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		07/12/24 09:30	07/20/24 07:58	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		07/12/24 09:30	07/20/24 07:58	1
C8-C18	<26		26	ug/L		07/12/24 09:30	07/20/24 07:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	105		60 - 130	07/12/24 09:30	07/20/24 07:58	1

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# Client Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: 380-103336-4**

**Date Collected: 07/08/24 11:30**

**Matrix: Water**

**Date Received: 07/10/24 09:55**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			07/16/24 20:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		38 - 134				07/16/24 20:34	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: 380-103336-1

**Client Sample ID: AIEA GULCH WELLS PUMP 2**

**Lab Sample ID: 380-103336-1**

**PWSID Number: HI0000331**

## 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 Limit	RL	Method	Prep Type
Benzo[a]pyrene	<0.20		ug/L	0.2	0.20	625.1 SIM	Total/NA

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

**Lab Sample ID: 380-103336-3**

## 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 Limit	RL	Method	Prep Type
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	^3+	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	^3+	ug/L	0.2	0.0097	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
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: 380-103336-1

## 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)
380-103336-1	AIEA GULCH WELLS PUMP 2	99	103	109
380-103336-1 MS	AIEA GULCH WELLS PUMP 2	93	100	119
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	104	101	111

**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)
380-103353-AY-1-A DU	Duplicate	93	100	105
LCS 380-98718/23-A	Lab Control Sample	93	104	117
LCSD 380-98718/24-A	Lab Control Sample Dup	93	101	119
MB 380-98718/21-A	Method Blank	90	103	106
MRL 380-98718/22-A	Lab Control Sample	93	102	115

**Surrogate Legend**

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

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

Matrix: Drinking 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)
380-103336-1	AIEA GULCH WELLS PUMP 2	67	81	51	85	32	78
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	87	93	56	87	34	92

**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 - 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)
MB 570-460222/1-A	Method Blank	66	64	49	68	32	78

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# Surrogate Summary

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

Job ID: 380-103336-1

### 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: Drinking 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)
380-103336-1	AIEA GULCH WELLS PUMP 2	101	78	53	87	32	92
380-103336-1 MS	AIEA GULCH WELLS PUMP 2	118	72	50	66	33	93
380-103336-1 MSD	(Matrix Spike)						
380-103336-1 MSD	AIEA GULCH WELLS PUMP 2	122	82	53	69	35	96
	(Matrix Spike Duplicate)						
380-103336-3	AIEA WELLS PUMPS 1&2 (260)	109	87	56	94	36	102
	P2						
380-103336-3 MS	AIEA WELLS PUMPS 1&2 (260)	110	78	55	71	36	85
	P2						
380-103336-3 MSD	AIEA WELLS PUMPS 1&2 (260)	111	78	54	72	35	88
	P2						

### 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)
LCS 570-460222/2-A	Lab Control Sample	107	75	58	79	38	82
LCS 570-460222/3-A	Lab Control Sample Dup	115	78	60	75	41	90
MB 570-460222/1-A	Method Blank	97	61	53	70	36	85

### 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: 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)
380-103336-1	AIEA GULCH WELLS PUMP 2	91

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# Surrogate Summary

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

Job ID: 380-103336-1

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

Matrix: Drinking Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-103336-1 MS	AIEA GULCH WELLS PUMP 2 (	99
380-103336-1 MSD	AIEA GULCH WELLS PUMP 2 (Matrix Spike Duplicate)	106
380-103336-2	TB: AIEA GULCH WELLS PUMF 2	94
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	98
380-103336-3 MS	AIEA WELLS PUMPS 1&2 (260) (Matrix Spike)	100
380-103336-3 MSD	AIEA WELLS PUMPS 1&2 (Matrix Spike Duplicate)	107

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (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)
380-103336-4	TB: AIEA WELLS PUMPS 1&2 (	83
LCS 570-460706/4	Lab Control Sample	99
LCSD 570-460706/5	Lab Control Sample Dup	101
MB 570-460706/6	Method Blank	97
MRL 570-460706/3	Lab Control Sample	94

#### 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)
380-103336-1	AIEA GULCH WELLS PUMP 2	113
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	105
380-103336-3 MS	AIEA WELLS PUMPS 1&2 (260) (Matrix Spike)	114
380-103336-3 MSD	AIEA WELLS PUMPS 1&2 (Matrix Spike Duplicate)	107

#### Surrogate Legend

OTCSN = n-Octacosane (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
380-103336-1 MSD	AIEA GULCH WELLS PUMP 2 (	

# Surrogate Summary

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

Job ID: 380-103336-1

## 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)
LCS 570-459748/2-A	Lab Control Sample	110
LCSD 570-459748/3-A	Lab Control Sample Dup	91
MB 570-459748/1-A	Method Blank	105
MRL 570-459748/4-A	Lab Control Sample	108

## Surrogate Legend

OTCSN = n-Octacosane (Surr)

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

# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: MB 380-98718/21-A**  
**Matrix: Water**  
**Analysis Batch: 98808**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
2,4'-DDD	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
2,4'-DDE	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
2,4'-DDT	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
2,6-Dinitrotoluene	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
2-Methylnaphthalene	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
4,4'-DDD	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
4,4'-DDE	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
4,4'-DDT	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Acenaphthene	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Acenaphthylene	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Acetochlor	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Alachlor	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
alpha-BHC	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
alpha-Chlordane	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Anthracene	<0.020		0.020	ug/L		07/12/24 08:00	07/12/24 16:07	1
Atrazine	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Benz(a)anthracene	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Benzo[a]pyrene	<0.020		0.020	ug/L		07/12/24 08:00	07/12/24 16:07	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		07/12/24 08:00	07/12/24 16:07	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		07/12/24 08:00	07/12/24 16:07	1
beta-BHC	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		07/12/24 08:00	07/12/24 16:07	1
Bromacil	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Butachlor	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Butylbenzylphthalate	<0.49		0.49	ug/L		07/12/24 08:00	07/12/24 16:07	1
Chlorobenzilate	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Chloroneb	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Chlorpyrifos	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Chrysene	<0.020		0.020	ug/L		07/12/24 08:00	07/12/24 16:07	1
delta-BHC	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		07/12/24 08:00	07/12/24 16:07	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Dieldrin	<0.0098		0.0098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Diethylphthalate	<0.49		0.49	ug/L		07/12/24 08:00	07/12/24 16:07	1
Dimethylphthalate	<0.49		0.49	ug/L		07/12/24 08:00	07/12/24 16:07	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		07/12/24 08:00	07/12/24 16:07	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Endosulfan II (Beta)	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Endosulfan sulfate	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Endrin	<0.0098		0.0098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Endrin aldehyde	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
EPTC	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1

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# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: MB 380-98718/21-A**  
**Matrix: Water**  
**Analysis Batch: 98808**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Fluorene	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
gamma-Chlordane	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Heptachlor	<0.0098		0.0098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Heptachlor epoxide (isomer B)	<0.0098		0.0098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Hexachlorobenzene	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Isophorone	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Lindane	<0.0098		0.0098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Malathion	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Methoxychlor	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Metolachlor	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Molinate	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Naphthalene	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Parathion	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Phenanthrene	<0.039		0.039	ug/L		07/12/24 08:00	07/12/24 16:07	1
Propachlor	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Pyrene	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Simazine	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Terbacil	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Terbutylazine	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Thiobencarb	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		07/12/24 08:00	07/12/24 16:07	1
trans-Nonachlor	<0.049		0.049	ug/L		07/12/24 08:00	07/12/24 16:07	1
Trifluralin	<0.098		0.098	ug/L		07/12/24 08:00	07/12/24 16:07	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Cyclopentasiloxane, decamethyl-	0.654	T J N	ug/L		2.59	541-02-6	07/12/24 08:00	07/12/24 16:07	1
Cyclohexasiloxane, dodecamethyl-	0.699	T J N	ug/L		3.13	540-97-6	07/12/24 08:00	07/12/24 16:07	1
Unknown	0.635	T J	ug/L		4.30	N/A	07/12/24 08:00	07/12/24 16:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	90		70 - 130	07/12/24 08:00	07/12/24 16:07	1
Perylene-d12	103		70 - 130	07/12/24 08:00	07/12/24 16:07	1
Triphenylphosphate	106		70 - 130	07/12/24 08:00	07/12/24 16:07	1

**Lab Sample ID: LCS 380-98718/23-A**  
**Matrix: Water**  
**Analysis Batch: 98808**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.96	2.02		ug/L		103	70 - 130
2,4'-DDD	1.96	2.10		ug/L		107	70 - 130
2,4'-DDE	1.96	2.10		ug/L		107	70 - 130
2,4'-DDT	1.96	1.99		ug/L		101	70 - 130
2,4-Dinitrotoluene	1.96	1.75		ug/L		89	70 - 130

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# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: LCS 380-98718/23-A**  
**Matrix: Water**  
**Analysis Batch: 98808**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,6-Dinitrotoluene	1.96	1.79		ug/L		91	70 - 130
2-Methylnaphthalene	1.96	1.99		ug/L		101	70 - 130
4,4'-DDD	1.96	1.89		ug/L		96	70 - 130
4,4'-DDE	1.96	2.06		ug/L		105	70 - 130
4,4'-DDT	1.96	1.88		ug/L		96	70 - 130
Acenaphthene	1.96	1.93		ug/L		98	70 - 130
Acenaphthylene	1.96	2.06		ug/L		105	70 - 130
Acetochlor	1.96	2.13		ug/L		108	70 - 130
Alachlor	1.96	1.96		ug/L		100	70 - 130
alpha-BHC	1.96	1.80		ug/L		92	70 - 130
alpha-Chlordane	1.96	2.45		ug/L		125	70 - 130
Anthracene	1.96	1.98		ug/L		101	70 - 130
Atrazine	1.96	2.16		ug/L		110	70 - 130
Benz(a)anthracene	1.96	1.85		ug/L		94	70 - 130
Benzo[a]pyrene	1.96	2.03		ug/L		103	70 - 130
Benzo[b]fluoranthene	1.96	2.00		ug/L		102	70 - 130
Benzo[g,h,i]perylene	1.96	2.24		ug/L		114	70 - 130
Benzo[k]fluoranthene	1.96	2.08		ug/L		106	70 - 130
beta-BHC	1.96	1.84		ug/L		94	70 - 130
Bis(2-ethylhexyl) phthalate	1.96	2.12		ug/L		108	70 - 130
Bromacil	1.96	1.73		ug/L		88	70 - 130
Butachlor	1.96	1.99		ug/L		101	70 - 130
Butylbenzylphthalate	1.96	2.03		ug/L		103	70 - 130
Chlorobenzilate	1.96	1.71		ug/L		87	70 - 130
Chloroneb	1.96	1.81		ug/L		92	70 - 130
Chlorothalonil (Draconil, Bravo)	1.96	1.99		ug/L		101	70 - 130
Chlorpyrifos	1.96	1.94		ug/L		99	70 - 130
Chrysene	1.96	1.87		ug/L		95	70 - 130
delta-BHC	1.96	1.94		ug/L		99	70 - 130
Di(2-ethylhexyl)adipate	1.96	2.02		ug/L		103	70 - 130
Dibenz(a,h)anthracene	1.96	2.25		ug/L		114	70 - 130
Diclorvos (DDVP)	1.96	2.02		ug/L		103	70 - 130
Dieldrin	1.96	2.01		ug/L		102	70 - 130
Diethylphthalate	1.96	1.95		ug/L		99	70 - 130
Dimethylphthalate	1.96	2.04		ug/L		104	70 - 130
Di-n-butyl phthalate	3.93	4.19		ug/L		107	70 - 130
Di-n-octyl phthalate	1.96	1.87		ug/L		95	70 - 130
Endosulfan I (Alpha)	1.96	1.95		ug/L		99	70 - 130
Endosulfan II (Beta)	1.96	1.92		ug/L		98	70 - 130
Endosulfan sulfate	1.96	1.98		ug/L		101	70 - 130
Endrin	1.96	1.91		ug/L		97	70 - 130
Endrin aldehyde	1.96	1.65		ug/L		84	60 - 130
EPTC	1.96	1.99		ug/L		101	70 - 130
Fluoranthene	1.96	2.01		ug/L		103	70 - 130
Fluorene	1.96	2.00		ug/L		102	70 - 130
gamma-Chlordane	1.96	2.41		ug/L		123	70 - 130
Heptachlor	1.96	2.00		ug/L		102	70 - 130
Heptachlor epoxide (isomer B)	1.96	2.36		ug/L		120	70 - 130
Hexachlorobenzene	1.96	1.99		ug/L		101	70 - 130

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# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: LCS 380-98718/23-A**  
**Matrix: Water**  
**Analysis Batch: 98808**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	1.96	1.96		ug/L		100	70 - 130
Indeno[1,2,3-cd]pyrene	1.96	2.27		ug/L		116	70 - 130
Isophorone	1.96	1.99		ug/L		101	70 - 130
Lindane	1.96	1.81		ug/L		92	70 - 130
Malathion	1.96	2.01		ug/L		102	70 - 130
Methoxychlor	1.96	1.94		ug/L		99	70 - 130
Metolachlor	1.96	2.26		ug/L		115	70 - 130
Molinate	1.96	2.07		ug/L		105	70 - 130
Naphthalene	1.96	1.87		ug/L		95	70 - 130
Parathion	1.96	1.99		ug/L		101	70 - 130
Pendimethalin (Penoxaline)	1.96	2.06		ug/L		105	70 - 130
Phenanthrene	1.96	1.90		ug/L		97	70 - 130
Propachlor	1.96	2.11		ug/L		108	70 - 130
Pyrene	1.96	1.89		ug/L		96	70 - 130
Simazine	1.96	1.94		ug/L		99	70 - 130
Terbacil	1.96	1.91		ug/L		97	70 - 130
Terbutylazine	1.96	2.12		ug/L		108	70 - 130
Thiobencarb	1.96	2.25		ug/L		114	70 - 130
trans-Nonachlor	1.96	2.35		ug/L		120	70 - 130
Trifluralin	1.96	1.86		ug/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	93		70 - 130
Perylene-d12	104		70 - 130
Triphenylphosphate	117		70 - 130

**Lab Sample ID: LCSD 380-98718/24-A**  
**Matrix: Water**  
**Analysis Batch: 98808**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.96	2.10		ug/L		107	70 - 130	4	20
2,4'-DDD	1.96	2.10		ug/L		107	70 - 130	0	20
2,4'-DDE	1.96	2.01		ug/L		102	70 - 130	4	20
2,4'-DDT	1.96	1.83		ug/L		93	70 - 130	8	20
2,4-Dinitrotoluene	1.96	1.89		ug/L		97	70 - 130	8	20
2,6-Dinitrotoluene	1.96	1.91		ug/L		97	70 - 130	7	20
2-Methylnaphthalene	1.96	2.07		ug/L		105	70 - 130	4	20
4,4'-DDD	1.96	1.90		ug/L		97	70 - 130	0	20
4,4'-DDE	1.96	1.90		ug/L		97	70 - 130	8	20
4,4'-DDT	1.96	1.72		ug/L		88	70 - 130	9	20
Acenaphthene	1.96	2.02		ug/L		103	70 - 130	5	20
Acenaphthylene	1.96	2.16		ug/L		110	70 - 130	4	20
Acetochlor	1.96	2.18		ug/L		111	70 - 130	2	20
Alachlor	1.96	2.01		ug/L		102	70 - 130	2	20
alpha-BHC	1.96	1.90		ug/L		97	70 - 130	5	20
alpha-Chlordane	1.96	2.42		ug/L		123	70 - 130	1	20
Anthracene	1.96	2.07		ug/L		105	70 - 130	4	20

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-103336-1

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

Lab Sample ID: LCSD 380-98718/24-A

Matrix: Water

Analysis Batch: 98808

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 98718

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
Atrazine	1.96	2.29		ug/L		117	70 - 130	6	20	
Benz(a)anthracene	1.96	1.87		ug/L		95	70 - 130	1	20	
Benzo[a]pyrene	1.96	1.88		ug/L		96	70 - 130	8	20	
Benzo[b]fluoranthene	1.96	1.93		ug/L		98	70 - 130	4	20	
Benzo[g,h,i]perylene	1.96	1.94		ug/L		99	70 - 130	14	20	
Benzo[k]fluoranthene	1.96	1.94		ug/L		99	70 - 130	7	20	
beta-BHC	1.96	1.96		ug/L		100	70 - 130	6	20	
Bis(2-ethylhexyl) phthalate	1.96	1.75		ug/L		89	70 - 130	19	20	
Bromacil	1.96	1.89		ug/L		96	70 - 130	9	20	
Butachlor	1.96	2.05		ug/L		104	70 - 130	3	20	
Butylbenzylphthalate	1.96	2.11		ug/L		108	70 - 130	4	20	
Chlorobenzilate	1.96	1.78		ug/L		91	70 - 130	4	20	
Chloroneb	1.96	1.88		ug/L		96	70 - 130	4	20	
Chlorothalonil (Draconil, Bravo)	1.96	2.08		ug/L		106	70 - 130	4	20	
Chlorpyrifos	1.96	2.00		ug/L		102	70 - 130	3	20	
Chrysene	1.96	1.84		ug/L		94	70 - 130	1	20	
delta-BHC	1.96	1.98		ug/L		101	70 - 130	2	20	
Di(2-ethylhexyl)adipate	1.96	1.70		ug/L		87	70 - 130	17	20	
Dibenz(a,h)anthracene	1.96	1.99		ug/L		102	70 - 130	12	20	
Diclorvos (DDVP)	1.96	2.14		ug/L		109	70 - 130	6	20	
Dieldrin	1.96	2.09		ug/L		107	70 - 130	4	20	
Diethylphthalate	1.96	2.04		ug/L		104	70 - 130	4	20	
Dimethylphthalate	1.96	2.11		ug/L		108	70 - 130	3	20	
Di-n-butyl phthalate	3.93	4.17		ug/L		106	70 - 130	0	20	
Di-n-octyl phthalate	1.96	1.51	*1	ug/L		77	70 - 130	22	20	
Endosulfan I (Alpha)	1.96	1.90		ug/L		97	70 - 130	2	20	
Endosulfan II (Beta)	1.96	1.99		ug/L		101	70 - 130	3	20	
Endosulfan sulfate	1.96	2.04		ug/L		104	70 - 130	3	20	
Endrin	1.96	1.93		ug/L		98	70 - 130	1	20	
Endrin aldehyde	1.96	1.56		ug/L		79	60 - 130	6	20	
EPTC	1.96	2.06		ug/L		105	70 - 130	4	20	
Fluoranthene	1.96	2.17		ug/L		111	70 - 130	8	20	
Fluorene	1.96	2.12		ug/L		108	70 - 130	6	20	
gamma-Chlordane	1.96	2.39		ug/L		122	70 - 130	1	20	
Heptachlor	1.96	2.05		ug/L		104	70 - 130	2	20	
Heptachlor epoxide (isomer B)	1.96	2.37		ug/L		121	70 - 130	1	20	
Hexachlorobenzene	1.96	2.08		ug/L		106	70 - 130	4	20	
Hexachlorocyclopentadiene	1.96	2.02		ug/L		103	70 - 130	3	20	
Indeno[1,2,3-cd]pyrene	1.96	1.98		ug/L		101	70 - 130	14	20	
Isophorone	1.96	2.08		ug/L		106	70 - 130	5	20	
Lindane	1.96	1.91		ug/L		97	70 - 130	6	20	
Malathion	1.96	2.09		ug/L		107	70 - 130	4	20	
Methoxychlor	1.96	2.10		ug/L		107	70 - 130	8	20	
Metolachlor	1.96	2.31		ug/L		118	70 - 130	2	20	
Molinate	1.96	2.16		ug/L		110	70 - 130	4	20	
Naphthalene	1.96	1.95		ug/L		99	70 - 130	4	20	
Parathion	1.96	2.10		ug/L		107	70 - 130	5	20	
Pendimethalin (Penoxaline)	1.96	2.14		ug/L		109	70 - 130	4	20	
Phenanthrene	1.96	2.01		ug/L		102	70 - 130	6	20	

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: LCSD 380-98718/24-A**  
**Matrix: Water**  
**Analysis Batch: 98808**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Propachlor	1.96	2.19		ug/L		112	70 - 130	4	20	
Pyrene	1.96	2.03		ug/L		104	70 - 130	8	20	
Simazine	1.96	2.13		ug/L		109	70 - 130	9	20	
Terbacil	1.96	2.11		ug/L		107	70 - 130	10	20	
Terbutylazine	1.96	2.24		ug/L		114	70 - 130	5	20	
Thiobencarb	1.96	2.36		ug/L		120	70 - 130	5	20	
trans-Nonachlor	1.96	2.30		ug/L		117	70 - 130	2	20	
Trifluralin	1.96	1.97		ug/L		101	70 - 130	6	20	

  

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	93		70 - 130
Perylene-d12	101		70 - 130
Triphenylphosphate	119		70 - 130

**Lab Sample ID: MRL 380-98718/22-A**  
**Matrix: Water**  
**Analysis Batch: 98808**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec	
							Limits	RPD
1-Methylnaphthalene	0.0976	0.108		ug/L		111	50 - 150	
2,4'-DDD	0.0976	0.114		ug/L		117	50 - 150	
2,4'-DDE	0.0976	0.0979	J	ug/L		100	50 - 150	
2,4'-DDT	0.0976	0.119		ug/L		122	50 - 150	
2,4-Dinitrotoluene	0.0976	0.106		ug/L		108	50 - 150	
2,6-Dinitrotoluene	0.0976	0.106		ug/L		109	50 - 150	
2-Methylnaphthalene	0.0976	0.103		ug/L		106	50 - 150	
4,4'-DDD	0.0976	0.124		ug/L		128	50 - 150	
4,4'-DDE	0.0976	0.117		ug/L		119	50 - 150	
4,4'-DDT	0.0976	0.113		ug/L		116	50 - 150	
Acenaphthene	0.0976	0.0999		ug/L		102	50 - 150	
Acenaphthylene	0.0976	0.103		ug/L		106	50 - 150	
Acetochlor	0.0976	0.107		ug/L		110	50 - 150	
Alachlor	0.0488	0.0475	J	ug/L		97	50 - 150	
alpha-BHC	0.0976	0.101		ug/L		104	50 - 150	
alpha-Chlordane	0.0244	0.0332	J	ug/L		136	50 - 150	
Anthracene	0.0195	0.0240		ug/L		123	50 - 150	
Atrazine	0.0488	<0.047		ug/L		96	50 - 150	
Benz(a)anthracene	0.0488	0.0444	J	ug/L		91	50 - 150	
Benzo[a]pyrene	0.0195	0.0200		ug/L		102	50 - 150	
Benzo[b]fluoranthene	0.0195	0.0178	J	ug/L		91	50 - 150	
Benzo[g,h,i]perylene	0.0488	0.0445	J	ug/L		91	50 - 150	
Benzo[k]fluoranthene	0.0195	0.0184	J	ug/L		94	50 - 150	
beta-BHC	0.0976	0.102		ug/L		104	50 - 150	
Bis(2-ethylhexyl) phthalate	0.585	0.609		ug/L		104	50 - 150	
Bromacil	0.0976	0.110		ug/L		113	50 - 150	
Butachlor	0.0488	0.0645		ug/L		132	50 - 150	
Butylbenzylphthalate	0.488	0.541		ug/L		111	50 - 150	
Chlorobenzilate	0.0976	0.0842	J	ug/L		86	50 - 150	



# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: MRL 380-98718/22-A**  
**Matrix: Water**  
**Analysis Batch: 98808**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloroneb	0.0976	0.0867	J	ug/L		89	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0976	0.112		ug/L		115	50 - 150
Chlorpyrifos	0.0488	0.0594		ug/L		122	50 - 150
Chrysene	0.0195	0.0210		ug/L		108	50 - 150
delta-BHC	0.0976	0.107		ug/L		109	50 - 150
Di(2-ethylhexyl)adipate	0.585	0.657		ug/L		112	50 - 150
Dibenz(a,h)anthracene	0.0488	0.0531		ug/L		109	50 - 150
Diclorvos (DDVP)	0.0488	0.0492		ug/L		101	50 - 150
Dieldrin	0.00976	<0.0068		ug/L		67	50 - 150
Diethylphthalate	0.488	0.505		ug/L		104	50 - 150
Dimethylphthalate	0.488	0.534		ug/L		109	50 - 150
Di-n-butyl phthalate	0.488	0.484	J	ug/L		99	49 - 243
Di-n-octyl phthalate	0.0976	0.104		ug/L		106	50 - 150
Endosulfan I (Alpha)	0.0976	0.0895	J	ug/L		92	50 - 150
Endosulfan II (Beta)	0.0976	0.110		ug/L		113	50 - 150
Endosulfan sulfate	0.0976	0.122		ug/L		125	50 - 150
Endrin	0.00976	0.0148	^3+	ug/L		152	50 - 150
Endrin aldehyde	0.0976	0.102		ug/L		104	50 - 150
EPTC	0.0976	0.0925	J	ug/L		95	50 - 150
Fluoranthene	0.0976	0.0995		ug/L		102	50 - 150
Fluorene	0.0488	0.0504		ug/L		103	50 - 150
gamma-Chlordane	0.0244	0.0317	J	ug/L		130	50 - 150
Heptachlor	0.00976	0.0111		ug/L		114	50 - 150
Heptachlor epoxide (isomer B)	0.00976	0.0147	^3+	ug/L		151	50 - 150
Hexachlorobenzene	0.0488	0.0457	J	ug/L		94	50 - 150
Hexachlorocyclopentadiene	0.0488	0.0377	J	ug/L		77	50 - 150
Indeno[1,2,3-cd]pyrene	0.0488	0.0544		ug/L		111	50 - 150
Isophorone	0.0976	0.117		ug/L		120	50 - 150
Lindane	0.00976	0.0111		ug/L		113	50 - 150
Malathion	0.0976	0.113		ug/L		116	50 - 150
Methoxychlor	0.0488	0.0629		ug/L		129	50 - 150
Metolachlor	0.0488	0.0584		ug/L		120	50 - 150
Molinate	0.0976	0.109		ug/L		112	50 - 150
Naphthalene	0.0976	0.102		ug/L		104	50 - 150
Parathion	0.0976	0.101		ug/L		104	50 - 150
Pendimethalin (Penoxaline)	0.0976	0.101		ug/L		104	50 - 150
Phenanthrene	0.0390	0.0429		ug/L		110	50 - 150
Propachlor	0.0488	0.0527		ug/L		108	50 - 150
Pyrene	0.0488	0.0494		ug/L		101	50 - 150
Simazine	0.0488	0.0488	J	ug/L		100	50 - 150
Terbacil	0.0976	0.0913	J	ug/L		94	50 - 150
Terbutylazine	0.0976	0.0983		ug/L		101	50 - 150
Thiobencarb	0.0976	0.113		ug/L		115	50 - 150
trans-Nonachlor	0.0244	0.0352	J	ug/L		144	50 - 150
Trifluralin	0.0976	0.0985		ug/L		101	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	93		70 - 130

# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: MRL 380-98718/22-A**  
**Matrix: Water**  
**Analysis Batch: 98808**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Surrogate	MRL %Recovery	MRL Qualifier	Limits
Perylene-d12	102		70 - 130
Triphenylphosphate	115		70 - 130

**Lab Sample ID: 380-103336-1 MS**  
**Matrix: Drinking Water**  
**Analysis Batch: 98808**

**Client Sample ID: AIEA GULCH WELLS PUMP 2**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.098		1.96	2.06		ug/L		105	70 - 130
2,4'-DDD	<0.098		1.96	2.13		ug/L		109	70 - 130
2,4'-DDE	<0.098		1.96	2.11		ug/L		108	70 - 130
2,4'-DDT	<0.098		1.96	1.98		ug/L		101	70 - 130
2,4-Dinitrotoluene	<0.098		1.96	1.95		ug/L		100	70 - 130
2,6-Dinitrotoluene	<0.098		1.96	1.94		ug/L		99	70 - 130
2-Methylnaphthalene	<0.098		1.96	2.08		ug/L		106	70 - 130
4,4'-DDD	<0.098		1.96	1.96		ug/L		100	70 - 130
4,4'-DDE	<0.098		1.96	2.08		ug/L		106	70 - 130
4,4'-DDT	<0.098		1.96	1.90		ug/L		97	70 - 130
Acenaphthene	<0.098		1.96	2.02		ug/L		103	70 - 130
Acenaphthylene	<0.098		1.96	2.14		ug/L		109	70 - 130
Acetochlor	<0.098		1.96	2.09		ug/L		107	70 - 130
Alachlor	<0.049		1.96	1.96		ug/L		100	70 - 130
alpha-BHC	<0.098		1.96	1.87		ug/L		96	70 - 130
alpha-Chlordane	<0.049		1.96	2.42		ug/L		123	70 - 130
Anthracene	<0.020		1.96	1.77		ug/L		91	70 - 130
Atrazine	<0.049		1.96	2.34		ug/L		119	70 - 130
Benz(a)anthracene	<0.049		1.96	1.90		ug/L		97	70 - 130
Benzo[a]pyrene	<0.020		1.96	1.88		ug/L		96	70 - 130
Benzo[b]fluoranthene	<0.020		1.96	2.02		ug/L		103	70 - 130
Benzo[g,h,i]perylene	<0.049		1.96	2.13		ug/L		109	70 - 130
Benzo[k]fluoranthene	<0.020		1.96	2.07		ug/L		106	70 - 130
beta-BHC	<0.098		1.96	1.95		ug/L		100	70 - 130
Bis(2-ethylhexyl) phthalate	<0.59		1.96	1.81		ug/L		92	70 - 130
Bromacil	<0.098		1.96	1.95		ug/L		100	70 - 130
Butachlor	<0.049		1.96	1.99		ug/L		101	70 - 130
Butylbenzylphthalate	<0.49		1.96	2.08		ug/L		106	70 - 130
Chlorobenzilate	<0.098		1.96	1.60		ug/L		82	70 - 130
Chloroneb	<0.098		1.96	1.90		ug/L		97	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.098		1.96	2.11		ug/L		108	70 - 130
Chlorpyrifos	<0.049		1.96	1.97		ug/L		101	70 - 130
Chrysene	<0.020		1.96	1.92		ug/L		98	70 - 130
delta-BHC	<0.098		1.96	1.95		ug/L		100	70 - 130
Di(2-ethylhexyl)adipate	<0.59		1.96	1.92		ug/L		98	70 - 130
Dibenz(a,h)anthracene	<0.049		1.96	2.17		ug/L		111	70 - 130
Diclorvos (DDVP)	<0.049		1.96	2.23		ug/L		114	70 - 130
Dieldrin	<0.0098		1.96	1.96		ug/L		100	70 - 130
Diethylphthalate	<0.49		1.96	2.03		ug/L		104	70 - 130
Dimethylphthalate	<0.49		1.96	2.10		ug/L		107	70 - 130

# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: 380-103336-1 MS**

**Matrix: Drinking Water**

**Analysis Batch: 98808**

**Client Sample ID: AIEA GULCH WELLS PUMP 2**

**Prep Type: Total/NA**

**Prep Batch: 98718**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Di-n-butyl phthalate	<0.98		3.92	4.02		ug/L		103	70 - 130
Di-n-octyl phthalate	<0.098	*1	1.96	1.58		ug/L		81	70 - 130
Endosulfan I (Alpha)	<0.098		1.96	1.86		ug/L		95	70 - 130
Endosulfan II (Beta)	<0.098		1.96	1.93		ug/L		99	70 - 130
Endosulfan sulfate	<0.098		1.96	1.99		ug/L		102	70 - 130
Endrin	<0.0098	^3+	1.96	1.90		ug/L		97	70 - 130
Endrin aldehyde	<0.098		1.96	1.56		ug/L		80	60 - 130
EPTC	<0.098		1.96	2.02		ug/L		103	70 - 130
Fluoranthene	<0.098		1.96	2.19		ug/L		112	70 - 130
Fluorene	<0.049		1.96	2.10		ug/L		107	70 - 130
gamma-Chlordane	<0.049		1.96	2.41		ug/L		123	70 - 130
Heptachlor	<0.0098		1.96	2.00		ug/L		102	70 - 130
Heptachlor epoxide (isomer B)	<0.0098	^3+	1.96	2.33		ug/L		119	70 - 130
Hexachlorobenzene	<0.049		1.96	2.09		ug/L		107	70 - 130
Hexachlorocyclopentadiene	<0.049		1.96	2.08		ug/L		106	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.96	2.19		ug/L		112	70 - 130
Isophorone	<0.098		1.96	2.03		ug/L		104	70 - 130
Lindane	<0.0098		1.96	1.91		ug/L		98	70 - 130
Malathion	<0.098		1.96	2.03		ug/L		104	70 - 130
Methoxychlor	<0.049		1.96	1.97		ug/L		100	70 - 130
Metolachlor	<0.049		1.96	2.27		ug/L		116	70 - 130
Molinate	<0.098		1.96	2.16		ug/L		110	70 - 130
Naphthalene	<0.098		1.96	1.92		ug/L		98	70 - 130
Parathion	<0.098		1.96	2.03		ug/L		104	70 - 130
Pendimethalin (Penoxaline)	<0.098		1.96	2.10		ug/L		107	70 - 130
Phenanthrene	<0.039		1.96	2.04		ug/L		104	70 - 130
Propachlor	<0.049		1.96	2.18		ug/L		112	70 - 130
Pyrene	<0.049		1.96	2.03		ug/L		104	70 - 130
Simazine	<0.049		1.96	2.19		ug/L		112	70 - 130
Terbacil	<0.098		1.96	2.23		ug/L		114	70 - 130
Terbutylazine	<0.098		1.96	2.26		ug/L		115	70 - 130
Thiobencarb	<0.098		1.96	2.35		ug/L		120	70 - 130
trans-Nonachlor	<0.049		1.96	2.34		ug/L		119	70 - 130
Trifluralin	<0.098		1.96	1.92		ug/L		98	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	93		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	119		70 - 130

**Lab Sample ID: 380-103353-AY-1-A DU**

**Matrix: Water**

**Analysis Batch: 98990**

**Client Sample ID: Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 98718**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
1-Methylnaphthalene	<0.097		<0.096		ug/L		NC	20	
2,4'-DDD	<0.097		<0.096		ug/L		NC	20	
2,4'-DDE	<0.097		<0.096		ug/L		NC	20	

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: 380-103353-AY-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 98990**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
2,4'-DDT	<0.097		<0.096		ug/L		NC	20
2,4-Dinitrotoluene	<0.097		<0.096		ug/L		NC	20
2,6-Dinitrotoluene	<0.097		<0.096		ug/L		NC	20
2-Methylnaphthalene	<0.097		<0.096		ug/L		NC	20
4,4'-DDD	<0.097		<0.096		ug/L		NC	20
4,4'-DDE	<0.097		<0.096		ug/L		NC	20
4,4'-DDT	<0.097		<0.096		ug/L		NC	20
Acenaphthene	<0.097		<0.096		ug/L		NC	20
Acenaphthylene	<0.097		<0.096		ug/L		NC	20
Acetochlor	<0.097		<0.096		ug/L		NC	20
Alachlor	<0.048		<0.048		ug/L		NC	20
alpha-BHC	<0.097		<0.096		ug/L		NC	20
alpha-Chlordane	<0.048		<0.048		ug/L		NC	20
Anthracene	<0.019		<0.019		ug/L		NC	20
Atrazine	<0.048		<0.048		ug/L		NC	20
Benz(a)anthracene	<0.048		<0.048		ug/L		NC	20
Benzo[a]pyrene	<0.019		<0.019		ug/L		NC	20
Benzo[b]fluoranthene	<0.019		<0.019		ug/L		NC	20
Benzo[g,h,i]perylene	<0.048		<0.048		ug/L		NC	20
Benzo[k]fluoranthene	<0.019		<0.019		ug/L		NC	20
beta-BHC	<0.097		<0.096		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.58		<0.58		ug/L		NC	20
Bromacil	<0.097		<0.096		ug/L		NC	20
Butachlor	<0.048		<0.048		ug/L		NC	20
Butylbenzylphthalate	<0.48		<0.48		ug/L		NC	20
Chlorobenzilate	<0.097		<0.096		ug/L		NC	20
Chloroneb	<0.097		<0.096		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.097		<0.096		ug/L		NC	20
Chlorpyrifos	<0.048		<0.048		ug/L		NC	20
Chrysene	<0.019		<0.019		ug/L		NC	20
delta-BHC	<0.097		<0.096		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.58		<0.58		ug/L		NC	20
Dibenz(a,h)anthracene	<0.048		<0.048		ug/L		NC	20
Diclorvos (DDVP)	<0.048		<0.048		ug/L		NC	20
Dieldrin	<0.0097		<0.0096		ug/L		NC	20
Diethylphthalate	<0.48		<0.48		ug/L		NC	20
Dimethylphthalate	<0.48		<0.48		ug/L		NC	20
Di-n-butyl phthalate	<0.97		<0.96		ug/L		NC	20
Di-n-octyl phthalate	<0.097	*1	<0.096	*1	ug/L		NC	20
Endosulfan I (Alpha)	<0.097		<0.096		ug/L		NC	20
Endosulfan II (Beta)	<0.097		<0.096		ug/L		NC	20
Endosulfan sulfate	<0.097		<0.096		ug/L		NC	20
Endrin	<0.0097	^3+	<0.0096		ug/L		NC	20
Endrin aldehyde	<0.097		<0.096		ug/L		NC	20
EPTC	<0.097		<0.096		ug/L		NC	20
Fluoranthene	<0.097		<0.096		ug/L		NC	20
Fluorene	<0.048		<0.048		ug/L		NC	20
gamma-Chlordane	<0.048		<0.048		ug/L		NC	20
Heptachlor	<0.0097		<0.0096		ug/L		NC	20

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# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: 380-103353-AY-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 98990**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 98718**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Heptachlor epoxide (isomer B)	<0.0097	^3+	<0.0096		ug/L		NC	20
Hexachlorobenzene	<0.048		<0.048		ug/L		NC	20
Hexachlorocyclopentadiene	<0.048		<0.048		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	<0.048		<0.048		ug/L		NC	20
Isophorone	<0.097		<0.096		ug/L		NC	20
Lindane	<0.0097		<0.0096		ug/L		NC	20
Malathion	<0.097		<0.096		ug/L		NC	20
Methoxychlor	<0.048		<0.048		ug/L		NC	20
Metolachlor	<0.048		<0.048		ug/L		NC	20
Molinate	<0.097		<0.096		ug/L		NC	20
Naphthalene	<0.097		<0.096		ug/L		NC	20
Parathion	<0.097		<0.096		ug/L		NC	20
Pendimethalin (Penoxaline)	<0.097		<0.096		ug/L		NC	20
Phenanthrene	<0.039		<0.038		ug/L		NC	20
Propachlor	<0.048		<0.048		ug/L		NC	20
Pyrene	<0.048		<0.048		ug/L		NC	20
Simazine	<0.048		<0.048		ug/L		NC	20
Terbacil	<0.097		<0.096		ug/L		NC	20
Terbutylazine	<0.097		<0.096		ug/L		NC	20
Thiobencarb	<0.097		<0.096		ug/L		NC	20
Total Permethrin (mixed isomers)	<0.19		<0.19		ug/L		NC	20
trans-Nonachlor	<0.048		<0.048		ug/L		NC	20
Trifluralin	<0.097		<0.096		ug/L		NC	20

Surrogate	%Recovery	DU Qualifier	Limits
2-Nitro-m-xylene	93		70 - 130
Perylene-d12	100		70 - 130
Triphenylphosphate	105		70 - 130

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

**Lab Sample ID: MB 570-460222/1-A**  
**Matrix: Water**  
**Analysis Batch: 465420**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 460222**

Tentatively Identified Compound	Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	07/15/24 05:12	07/30/24 13:00	1

Surrogate	%Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	66		33 - 139	07/15/24 05:12	07/30/24 13:00	1
2-Fluorobiphenyl (Surr)	64		33 - 126	07/15/24 05:12	07/30/24 13:00	1
2-Fluorophenol (Surr)	49		12 - 120	07/15/24 05:12	07/30/24 13:00	1
Nitrobenzene-d5 (Surr)	68		36 - 120	07/15/24 05:12	07/30/24 13:00	1
Phenol-d6 (Surr)	32		10 - 120	07/15/24 05:12	07/30/24 13:00	1
p-Terphenyl-d14 (Surr)	78		47 - 131	07/15/24 05:12	07/30/24 13:00	1

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# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: MB 570-460222/1-A**  
**Matrix: Water**  
**Analysis Batch: 461962**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 460222**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
2-Methylnaphthalene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Acenaphthene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Acenaphthylene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Anthracene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Benzo[a]anthracene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Benzo[a]pyrene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Chrysene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Fluoranthene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Fluorene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Naphthalene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Phenanthrene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1
Pyrene	<0.20		0.20	ug/L		07/15/24 05:12	07/19/24 10:37	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	97		28 - 127	07/15/24 05:12	07/19/24 10:37	1
2-Fluorobiphenyl (Surr)	61		31 - 120	07/15/24 05:12	07/19/24 10:37	1
2-Fluorophenol (Surr)	53		17 - 120	07/15/24 05:12	07/19/24 10:37	1
Nitrobenzene-d5 (Surr)	70		27 - 120	07/15/24 05:12	07/19/24 10:37	1
Phenol-d6 (Surr)	36		10 - 120	07/15/24 05:12	07/19/24 10:37	1
p-Terphenyl-d14 (Surr)	85		45 - 120	07/15/24 05:12	07/19/24 10:37	1

**Lab Sample ID: LCS 570-460222/2-A**  
**Matrix: Water**  
**Analysis Batch: 461962**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 460222**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1-Methylnaphthalene	20.0	15.0		ug/L		75	47 - 120
2-Methylnaphthalene	20.0	15.0		ug/L		75	43 - 120
Acenaphthene	20.0	15.4		ug/L		77	60 - 132
Acenaphthylene	20.0	18.1		ug/L		91	54 - 126
Anthracene	20.0	17.0		ug/L		85	43 - 120
Benzo[a]anthracene	20.0	17.8		ug/L		89	42 - 133
Benzo[a]pyrene	20.0	18.8		ug/L		94	32 - 148
Benzo[b]fluoranthene	20.0	20.5		ug/L		102	42 - 140
Benzo[g,h,i]perylene	20.0	20.0		ug/L		100	1 - 195
Benzo[k]fluoranthene	20.0	19.8		ug/L		99	25 - 146
Chrysene	20.0	16.8		ug/L		84	44 - 140
Dibenz(a,h)anthracene	20.0	17.9		ug/L		89	1 - 200
Fluoranthene	20.0	18.2		ug/L		91	43 - 121
Fluorene	20.0	16.3		ug/L		81	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	18.0		ug/L		90	1 - 151
Naphthalene	20.0	14.5		ug/L		73	36 - 120

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# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: LCS 570-460222/2-A**  
**Matrix: Water**  
**Analysis Batch: 461962**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 460222**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenanthrene	20.0	16.1		ug/L		81	65 - 120
Pyrene	20.0	16.5		ug/L		82	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	107		28 - 127
2-Fluorobiphenyl (Surr)	75		31 - 120
2-Fluorophenol (Surr)	58		17 - 120
Nitrobenzene-d5 (Surr)	79		27 - 120
Phenol-d6 (Surr)	38		10 - 120
p-Terphenyl-d14 (Surr)	82		45 - 120

**Lab Sample ID: LCSD 570-460222/3-A**  
**Matrix: Water**  
**Analysis Batch: 461962**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 460222**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
1-Methylnaphthalene	20.0	14.3		ug/L		72	47 - 120	4	20
2-Methylnaphthalene	20.0	14.1		ug/L		70	43 - 120	6	20
Acenaphthene	20.0	16.2		ug/L		81	60 - 132	6	29
Acenaphthylene	20.0	19.3		ug/L		97	54 - 126	6	45
Anthracene	20.0	18.3		ug/L		92	43 - 120	8	40
Benzo[a]anthracene	20.0	19.0		ug/L		95	42 - 133	7	32
Benzo[a]pyrene	20.0	20.0		ug/L		100	32 - 148	6	43
Benzo[b]fluoranthene	20.0	21.7		ug/L		108	42 - 140	6	43
Benzo[g,h,i]perylene	20.0	21.5		ug/L		107	1 - 195	7	61
Benzo[k]fluoranthene	20.0	20.7		ug/L		104	25 - 146	5	38
Chrysene	20.0	17.9		ug/L		89	44 - 140	6	53
Dibenz(a,h)anthracene	20.0	18.8		ug/L		94	1 - 200	5	75
Fluoranthene	20.0	19.4		ug/L		97	43 - 121	6	40
Fluorene	20.0	17.3		ug/L		86	70 - 120	6	23
Indeno[1,2,3-cd]pyrene	20.0	19.3		ug/L		96	1 - 151	7	60
Naphthalene	20.0	13.7		ug/L		68	36 - 120	6	39
Phenanthrene	20.0	17.3		ug/L		87	65 - 120	7	24
Pyrene	20.0	17.9		ug/L		89	70 - 120	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	115		28 - 127
2-Fluorobiphenyl (Surr)	78		31 - 120
2-Fluorophenol (Surr)	60		17 - 120
Nitrobenzene-d5 (Surr)	75		27 - 120
Phenol-d6 (Surr)	41		10 - 120
p-Terphenyl-d14 (Surr)	90		45 - 120

# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: 380-103336-1 MS**

**Matrix: Drinking Water**

**Analysis Batch: 461962**

**Client Sample ID: AIEA GULCH WELLS PUMP 2 (Matrix Spike)**

**Prep Type: Total/NA**

**Prep Batch: 460222**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	<0.20		19.5	12.4		ug/L		64	36 - 120
2-Methylnaphthalene	<0.20		19.5	12.2		ug/L		63	32 - 124
Acenaphthene	<0.20		19.5	15.0		ug/L		77	47 - 145
Acenaphthylene	<0.20		19.5	17.7		ug/L		91	33 - 145
Anthracene	<0.20		19.5	18.6		ug/L		96	27 - 133
Benzo[a]anthracene	<0.20		19.5	19.6		ug/L		101	33 - 143
Benzo[a]pyrene	<0.20		19.5	20.3		ug/L		104	17 - 163
Benzo[b]fluoranthene	<0.20		19.5	22.2		ug/L		114	24 - 159
Benzo[g,h,i]perylene	<0.20		19.5	21.2		ug/L		109	1 - 219
Benzo[k]fluoranthene	<0.20		19.5	21.1		ug/L		108	11 - 162
Chrysene	<0.20		19.5	18.5		ug/L		95	17 - 168
Dibenz(a,h)anthracene	<0.20		19.5	18.8		ug/L		97	1 - 227
Fluoranthene	<0.20		19.5	20.2		ug/L		104	26 - 137
Fluorene	<0.20		19.5	16.5		ug/L		85	59 - 121
Indeno[1,2,3-cd]pyrene	<0.20		19.5	19.1		ug/L		98	1 - 171
Naphthalene	<0.20		19.5	11.8		ug/L		60	21 - 133
Phenanthrene	<0.20		19.5	17.7		ug/L		91	54 - 120
Pyrene	<0.20		19.5	18.0		ug/L		92	52 - 120

Surrogate	%Recovery	MS MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	118		28 - 127
2-Fluorobiphenyl (Surr)	72		31 - 120
2-Fluorophenol (Surr)	50		17 - 120
Nitrobenzene-d5 (Surr)	66		27 - 120
Phenol-d6 (Surr)	33		10 - 120
p-Terphenyl-d14 (Surr)	93		45 - 120

**Lab Sample ID: 380-103336-1 MSD**

**Matrix: Drinking Water**

**Analysis Batch: 461962**

**Client Sample ID: AIEA GULCH WELLS PUMP 2 (Matrix Spike Duplicate)**

**Prep Type: Total/NA**

**Prep Batch: 460222**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1-Methylnaphthalene	<0.20		19.4	12.9		ug/L		67	36 - 120	4	30
2-Methylnaphthalene	<0.20		19.4	12.6		ug/L		65	32 - 124	3	30
Acenaphthene	<0.20		19.4	16.2		ug/L		84	47 - 145	8	48
Acenaphthylene	<0.20		19.4	18.9		ug/L		98	33 - 145	6	74
Anthracene	<0.20		19.4	18.7		ug/L		97	27 - 133	1	66
Benzo[a]anthracene	<0.20		19.4	19.6		ug/L		101	33 - 143	0	53
Benzo[a]pyrene	<0.20		19.4	19.1		ug/L		99	17 - 163	6	72
Benzo[b]fluoranthene	<0.20		19.4	21.2		ug/L		109	24 - 159	5	71
Benzo[g,h,i]perylene	<0.20		19.4	20.6		ug/L		107	1 - 219	3	97
Benzo[k]fluoranthene	<0.20		19.4	20.0		ug/L		104	11 - 162	5	63
Chrysene	<0.20		19.4	18.4		ug/L		95	17 - 168	1	87
Dibenz(a,h)anthracene	<0.20		19.4	18.0		ug/L		93	1 - 227	5	126
Fluoranthene	<0.20		19.4	18.9		ug/L		97	26 - 137	7	66
Fluorene	<0.20		19.4	16.7		ug/L		86	59 - 121	1	38
Indeno[1,2,3-cd]pyrene	<0.20		19.4	18.4		ug/L		95	1 - 171	4	99
Naphthalene	<0.20		19.4	12.1		ug/L		63	21 - 133	3	65

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# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: 380-103336-1 MSD**

**Client Sample ID: AIEA GULCH WELLS PUMP 2 (Matrix Spike Duplicate)**

**Matrix: Drinking Water**

**Prep Type: Total/NA**

**Analysis Batch: 461962**

**Prep Batch: 460222**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	<0.20		19.4	17.6		ug/L		91	54 - 120	1	39
Pyrene	<0.20		19.4	19.0		ug/L		98	52 - 120	6	49

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
2,4,6-Tribromophenol (Surr)	122		28 - 127
2-Fluorobiphenyl (Surr)	82		31 - 120
2-Fluorophenol (Surr)	53		17 - 120
Nitrobenzene-d5 (Surr)	69		27 - 120
Phenol-d6 (Surr)	35		10 - 120
p-Terphenyl-d14 (Surr)	96		45 - 120

**Lab Sample ID: 380-103336-3 MS**

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

**Matrix: Drinking Water**

**Prep Type: Total/NA**

**Analysis Batch: 461962**

**Prep Batch: 460222**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.2	13.2		ug/L		68	36 - 120
2-Methylnaphthalene	<0.19		19.2	12.9		ug/L		67	32 - 124
Acenaphthene	<0.19		19.2	15.2		ug/L		79	47 - 145
Acenaphthylene	<0.19		19.2	18.0		ug/L		93	33 - 145
Anthracene	<0.19		19.2	17.2		ug/L		89	27 - 133
Benzo[a]anthracene	<0.19		19.2	17.4		ug/L		91	33 - 143
Benzo[a]pyrene	<0.19		19.2	17.3		ug/L		90	17 - 163
Benzo[b]fluoranthene	<0.19		19.2	19.1		ug/L		99	24 - 159
Benzo[g,h,i]perylene	<0.19		19.2	18.5		ug/L		96	1 - 219
Benzo[k]fluoranthene	<0.19		19.2	18.1		ug/L		94	11 - 162
Chrysene	<0.19		19.2	16.6		ug/L		86	17 - 168
Dibenz(a,h)anthracene	<0.19		19.2	16.7		ug/L		87	1 - 227
Fluoranthene	<0.19		19.2	17.8		ug/L		93	26 - 137
Fluorene	<0.19		19.2	15.9		ug/L		83	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.2	16.5		ug/L		86	1 - 171
Naphthalene	<0.19		19.2	12.6		ug/L		65	21 - 133
Phenanthrene	<0.19		19.2	16.2		ug/L		84	54 - 120
Pyrene	<0.19		19.2	16.6		ug/L		86	52 - 120

Surrogate	MS %Recovery	MS Qualifier	MS Limits
2,4,6-Tribromophenol (Surr)	110		28 - 127
2-Fluorobiphenyl (Surr)	78		31 - 120
2-Fluorophenol (Surr)	55		17 - 120
Nitrobenzene-d5 (Surr)	71		27 - 120
Phenol-d6 (Surr)	36		10 - 120
p-Terphenyl-d14 (Surr)	85		45 - 120

# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: 380-103336-3 MSD**

**Matrix: Drinking Water**  
**Analysis Batch: 461962**

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

**Prep Type: Total/NA**  
**Prep Batch: 460222**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
1-Methylnaphthalene	<0.19		19.2	13.6		ug/L		71	36 - 120	3	30
2-Methylnaphthalene	<0.19		19.2	13.3		ug/L		70	32 - 124	3	30
Acenaphthene	<0.19		19.2	15.8		ug/L		82	47 - 145	3	48
Acenaphthylene	<0.19		19.2	18.2		ug/L		95	33 - 145	2	74
Anthracene	<0.19		19.2	17.2		ug/L		90	27 - 133	0	66
Benzo[a]anthracene	<0.19		19.2	18.1		ug/L		95	33 - 143	4	53
Benzo[a]pyrene	<0.19		19.2	18.6		ug/L		97	17 - 163	8	72
Benzo[b]fluoranthene	<0.19		19.2	20.6		ug/L		107	24 - 159	8	71
Benzo[g,h,i]perylene	<0.19		19.2	20.2		ug/L		105	1 - 219	9	97
Benzo[k]fluoranthene	<0.19		19.2	19.7		ug/L		103	11 - 162	9	63
Chrysene	<0.19		19.2	17.1		ug/L		89	17 - 168	3	87
Dibenz(a,h)anthracene	<0.19		19.2	17.6		ug/L		92	1 - 227	6	126
Fluoranthene	<0.19		19.2	18.6		ug/L		97	26 - 137	4	66
Fluorene	<0.19		19.2	16.2		ug/L		85	59 - 121	2	38
Indeno[1,2,3-cd]pyrene	<0.19		19.2	17.9		ug/L		93	1 - 171	8	99
Naphthalene	<0.19		19.2	12.8		ug/L		67	21 - 133	2	65
Phenanthrene	<0.19		19.2	16.5		ug/L		86	54 - 120	2	39
Pyrene	<0.19		19.2	16.7		ug/L		87	52 - 120	1	49

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
2,4,6-Tribromophenol (Surr)	111		28 - 127
2-Fluorobiphenyl (Surr)	78		31 - 120
2-Fluorophenol (Surr)	54		17 - 120
Nitrobenzene-d5 (Surr)	72		27 - 120
Phenol-d6 (Surr)	35		10 - 120
p-Terphenyl-d14 (Surr)	88		45 - 120

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

**Lab Sample ID: MB 570-460706/6**

**Matrix: Water**  
**Analysis Batch: 460706**

**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			07/16/24 13:13	1

  

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		38 - 134		07/16/24 13:13	1

**Lab Sample ID: LCS 570-460706/4**

**Matrix: Water**  
**Analysis Batch: 460706**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Gasoline Range Organics (C4-C13)	400	401		ug/L		100	78 - 120

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# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: LCS 570-460706/4**  
**Matrix: Water**  
**Analysis Batch: 460706**

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

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

**Lab Sample ID: LCSD 570-460706/5**  
**Matrix: Water**  
**Analysis Batch: 460706**

**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	400		ug/L		100	78 - 120	0	10

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		38 - 134

**Lab Sample ID: MRL 570-460706/3**  
**Matrix: Water**  
**Analysis Batch: 460706**

**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	11.6		ug/L		116	50 - 150

	MRL	MRL	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		38 - 134

**Lab Sample ID: 380-103336-1 MS**  
**Matrix: Drinking Water**  
**Analysis Batch: 460706**

**Client Sample ID: AIEA GULCH WELLS PUMP 2 (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	377		ug/L		94	68 - 122

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

**Lab Sample ID: 380-103336-1 MSD**  
**Matrix: Drinking Water**  
**Analysis Batch: 460706**

**Client Sample ID: AIEA GULCH WELLS PUMP 2 (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	367		ug/L		92	68 - 122	3	18

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		38 - 134

# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: 380-103336-3 MS**  
**Matrix: Drinking Water**  
**Analysis Batch: 460706**

**Client Sample ID: AIEA WELLS PUMPS 1&2 (260) (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	374		ug/L		94	68 - 122	
<b>Surrogate</b>	<b>%Recovery</b>	<b>MS Qualifier</b>	<b>MS Limits</b>							
4-Bromofluorobenzene (Surr)	100		38 - 134							

**Lab Sample ID: 380-103336-3 MSD**  
**Matrix: Drinking Water**  
**Analysis Batch: 460706**

**Client Sample ID: AIEA WELLS PUMPS 1&2 (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	374		ug/L		93	68 - 122	0	18
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>	<b>MSD Limits</b>								
4-Bromofluorobenzene (Surr)	107		38 - 134								

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

**Lab Sample ID: MB 570-459748/1-A**  
**Matrix: Water**  
**Analysis Batch: 462177**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 459748**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics (C10-C24)	<25		25	ug/L		07/12/24 09:29	07/20/24 06:13	1	
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		07/12/24 09:29	07/20/24 06:13	1	
C8-C18	<25		25	ug/L		07/12/24 09:29	07/20/24 06:13	1	
<b>Surrogate</b>	<b>%Recovery</b>	<b>MB Qualifier</b>	<b>MB Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>			
n-Octacosane (Surr)	105		60 - 130	07/12/24 09:29	07/20/24 06:13	1			

**Lab Sample ID: LCS 570-459748/2-A**  
**Matrix: Water**  
**Analysis Batch: 462177**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 459748**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1420		ug/L		89	56 - 127
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>LCS Limits</b>				
n-Octacosane (Surr)	110		60 - 130				

**Lab Sample ID: LCSD 570-459748/3-A**  
**Matrix: Water**  
**Analysis Batch: 462177**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 459748**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	1600	1110	*1	ug/L		70	56 - 127	24	23

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# QC Sample Results

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

Job ID: 380-103336-1

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

**Lab Sample ID: LCSD 570-459748/3-A**  
**Matrix: Water**  
**Analysis Batch: 462177**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 459748**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>n-Octacosane (Surr)</i>	91		60 - 130

**Lab Sample ID: MRL 570-459748/4-A**  
**Matrix: Water**  
**Analysis Batch: 462177**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 459748**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	Limits
C10-C28	0.0200	<0.020		mg/L		87	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
<i>n-Octacosane (Surr)</i>	108		60 - 130

**Lab Sample ID: 380-103336-1 MSD**  
**Matrix: Drinking Water**  
**Analysis Batch: 462177**

**Client Sample ID: AIEA GULCH WELLS PUMP 2 (Matrix Spike Duplicate)**  
**Prep Type: Total/NA**  
**Prep Batch: 459748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
C10-C28	<29	*1	1740	1510		ug/L		87	50 - 150		

Surrogate	MSD %Recovery	MSD Qualifier	Limits
<i>n-Octacosane (Surr)</i>	108		60 - 130

**Lab Sample ID: 380-103336-3 MS**  
**Matrix: Drinking Water**  
**Analysis Batch: 462177**

**Client Sample ID: AIEA WELLS PUMPS 1&2 (260) (Matrix Spike)**  
**Prep Type: Total/NA**  
**Prep Batch: 459748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	<26	*1	1630	1590		ug/L		97	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
<i>n-Octacosane (Surr)</i>	114		60 - 130

**Lab Sample ID: 380-103336-3 MSD**  
**Matrix: Drinking Water**  
**Analysis Batch: 462177**

**Client Sample ID: AIEA WELLS PUMPS 1&2 (Matrix Spike Duplicate)**  
**Prep Type: Total/NA**  
**Prep Batch: 459748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
C10-C28	<26	*1	1650	1510		ug/L		91	70 - 130	5	20

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

# QC Association Summary

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

Job ID: 380-103336-1

## GC/MS Semi VOA

### Prep Batch: 98718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103336-1	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	525.2	
MB 380-98718/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-98718/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-98718/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-98718/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-103336-1 MS	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	
380-103353-AY-1-A DU	Duplicate	Total/NA	Water	525.2	

### Analysis Batch: 98808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103336-1	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	98718
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	525.2	98718
MB 380-98718/21-A	Method Blank	Total/NA	Water	525.2	98718
LCS 380-98718/23-A	Lab Control Sample	Total/NA	Water	525.2	98718
LCSD 380-98718/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	98718
MRL 380-98718/22-A	Lab Control Sample	Total/NA	Water	525.2	98718
380-103336-1 MS	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	98718

### Analysis Batch: 98990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103353-AY-1-A DU	Duplicate	Total/NA	Water	525.2	98718

### Prep Batch: 460222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103336-1	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	625.1	
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	625.1	
MB 570-460222/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-460222/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-460222/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-103336-1 MS	AIEA GULCH WELLS PUMP 2 (Matrix Spike)	Total/NA	Drinking Water	625.1	
380-103336-1 MSD	AIEA GULCH WELLS PUMP 2 (Matrix Spike Dup)	Total/NA	Drinking Water	625.1	
380-103336-3 MS	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	625.1	
380-103336-3 MSD	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	625.1	

### Analysis Batch: 461962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103336-1	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	625.1 SIM	460222
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	625.1 SIM	460222
MB 570-460222/1-A	Method Blank	Total/NA	Water	625.1 SIM	460222
LCS 570-460222/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	460222
LCSD 570-460222/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	460222
380-103336-1 MS	AIEA GULCH WELLS PUMP 2 (Matrix Spike)	Total/NA	Drinking Water	625.1 SIM	460222
380-103336-1 MSD	AIEA GULCH WELLS PUMP 2 (Matrix Spike Dup)	Total/NA	Drinking Water	625.1 SIM	460222
380-103336-3 MS	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	625.1 SIM	460222
380-103336-3 MSD	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	625.1 SIM	460222

### Analysis Batch: 465420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103336-1	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	625.1	460222
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	625.1	460222

Eurofins Eaton Analytical Pomona

# QC Association Summary

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

Job ID: 380-103336-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 465420 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-460222/1-A	Method Blank	Total/NA	Water	625.1	460222

## GC VOA

### Analysis Batch: 460706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103336-1	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	8015B GRO LL	
380-103336-2	TB: AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	8015B GRO LL	
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	8015B GRO LL	
380-103336-4	TB: AIEA WELLS PUMPS 1&2 (260)	Total/NA	Water	8015B GRO LL	
MB 570-460706/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-460706/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-460706/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-460706/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-103336-1 MS	AIEA GULCH WELLS PUMP 2 (Matrix Spike)	Total/NA	Drinking Water	8015B GRO LL	
380-103336-1 MSD	AIEA GULCH WELLS PUMP 2 (Matrix Spike Dup	Total/NA	Drinking Water	8015B GRO LL	
380-103336-3 MS	AIEA WELLS PUMPS 1&2 (260) (Matrix Spike)	Total/NA	Drinking Water	8015B GRO LL	
380-103336-3 MSD	AIEA WELLS PUMPS 1&2 (Matrix Spike Duplicat	Total/NA	Drinking Water	8015B GRO LL	

## GC Semi VOA

### Prep Batch: 459748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103336-1	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	3510C	
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	3510C	
MB 570-459748/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-459748/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-459748/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-459748/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-103336-1 MSD	AIEA GULCH WELLS PUMP 2 (Matrix Spike Dup	Total/NA	Drinking Water	3510C	
380-103336-3 MS	AIEA WELLS PUMPS 1&2 (260) (Matrix Spike)	Total/NA	Drinking Water	3510C	
380-103336-3 MSD	AIEA WELLS PUMPS 1&2 (Matrix Spike Duplicat	Total/NA	Drinking Water	3510C	

### Analysis Batch: 462177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-103336-1	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	8015B	459748
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Drinking Water	8015B	459748
MB 570-459748/1-A	Method Blank	Total/NA	Water	8015B	459748
LCS 570-459748/2-A	Lab Control Sample	Total/NA	Water	8015B	459748
LCSD 570-459748/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	459748
MRL 570-459748/4-A	Lab Control Sample	Total/NA	Water	8015B	459748
380-103336-1 MSD	AIEA GULCH WELLS PUMP 2 (Matrix Spike Dup	Total/NA	Drinking Water	8015B	459748
380-103336-3 MS	AIEA WELLS PUMPS 1&2 (260) (Matrix Spike)	Total/NA	Drinking Water	8015B	459748
380-103336-3 MSD	AIEA WELLS PUMPS 1&2 (Matrix Spike Duplicat	Total/NA	Drinking Water	8015B	459748

# Lab Chronicle

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

Job ID: 380-103336-1

## Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-103336-1

Date Collected: 07/08/24 11:03

Matrix: Drinking Water

Date Received: 07/10/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			98718	OTM3	EA POM	07/12/24 09:10
Total/NA	Analysis	525.2		1	98808	Q8LA	EA POM	07/12/24 16:27
Total/NA	Prep	625.1			460222	H1SH	EET CAL 4	07/15/24 05:12
Total/NA	Analysis	625.1		1	465420	UX77	EET CAL 4	07/30/24 13:29
Total/NA	Prep	625.1			460222	H1SH	EET CAL 4	07/15/24 05:12
Total/NA	Analysis	625.1 SIM		1	461962	CG	EET CAL 4	07/19/24 12:28
Total/NA	Analysis	8015B GRO LL		1	460706	A9VE	EET CAL 4	07/16/24 13:53
Total/NA	Prep	3510C			459748	H6FE	EET CAL 4	07/12/24 09:30
Total/NA	Analysis	8015B		1	462177	SP9M	EET CAL 4	07/20/24 07:16

## Client Sample ID: TB: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-103336-2

Date Collected: 07/08/24 11:03

Matrix: Drinking Water

Date Received: 07/10/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	460706	A9VE	EET CAL 4	07/16/24 20:08

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

Lab Sample ID: 380-103336-3

Date Collected: 07/08/24 11:30

Matrix: Drinking Water

Date Received: 07/10/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			98718	OTM3	EA POM	07/12/24 09:10
Total/NA	Analysis	525.2		1	98808	Q8LA	EA POM	07/12/24 17:08
Total/NA	Prep	625.1			460222	H1SH	EET CAL 4	07/15/24 05:12
Total/NA	Analysis	625.1		1	465420	UX77	EET CAL 4	07/30/24 13:51
Total/NA	Prep	625.1			460222	H1SH	EET CAL 4	07/15/24 05:12
Total/NA	Analysis	625.1 SIM		1	461962	CG	EET CAL 4	07/19/24 13:35
Total/NA	Analysis	8015B GRO LL		1	460706	A9VE	EET CAL 4	07/16/24 15:12
Total/NA	Prep	3510C			459748	H6FE	EET CAL 4	07/12/24 09:30
Total/NA	Analysis	8015B		1	462177	SP9M	EET CAL 4	07/20/24 07:58

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

Lab Sample ID: 380-103336-4

Date Collected: 07/08/24 11:30

Matrix: Water

Date Received: 07/10/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	460706	A9VE	EET CAL 4	07/16/24 20:34

**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: 380-103336-1

## 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	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	07-31-24
Kansas	NELAP	E-10420	07-31-24
Nevada	State	CA00111	07-31-24

Eurofins Eaton Analytical Pomona

# Accreditation/Certification Summary

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

Job ID: 380-103336-1

## 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: 380-103336-1

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: 380-103336-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-103336-1	AIEA GULCH WELLS PUMP 2	Drinking Water	07/08/24 11:03	07/10/24 09:55	HI0000331
380-103336-2	TB: AIEA GULCH WELLS PUMP 2	Drinking Water	07/08/24 11:03	07/10/24 09:55	HI0000331
380-103336-3	AIEA WELLS PUMPS 1&2 (260) P2	Drinking Water	07/08/24 11:30	07/10/24 09:55	
380-103336-4	TB: AIEA WELLS PUMPS 1&2 (260)	Water	07/08/24 11:30	07/10/24 09:55	

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# Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-103336-1

SDG Number:

**Login Number: 103336**

**List Number: 1**

**Creator: Elyas, Matthew**

**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: 380-103336-1

SDG Number:

**Login Number: 103336**

**List Number: 2**

**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**

**List Creation: 07/11/24 02:28 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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	2.2
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	

