

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

# ANALYTICAL REPORT

## PREPARED FOR

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City & County of Honolulu  
630 South Beretania Street  
Public Service Bldg. Room 310  
Honolulu, Hawaii 96843

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## JOB DESCRIPTION

RED-HILL  
Quarterly  
RUSH Weekly Red Hill

## JOB NUMBER

380-143838-1

# Eurofins Eaton Analytical Pomona

## Job Notes

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

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

## Compliance Statement

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

## Authorization



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# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Definitions/Glossary . . . . .	4
Case Narrative . . . . .	6
Detection Summary . . . . .	9
Client Sample Results . . . . .	10
Action Limit Summary . . . . .	29
Surrogate Summary . . . . .	34
QC Sample Results . . . . .	41
QC Association Summary . . . . .	92
Lab Chronicle . . . . .	100
Certification Summary . . . . .	103
Method Summary . . . . .	105
Sample Summary . . . . .	106
Chain of Custody . . . . .	107
Receipt Checklists . . . . .	114

# Definitions/Glossary

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

Job ID: 380-143838-1  
SDG: Quarterly

## Qualifiers

### GC/MS VOA

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

### GC/MS VOA TICs

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

### GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
B	Analyte was found in the associated method blank.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
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
^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.

### HPLC/IC

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
B	Analyte was found in the associated method blank.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)

## Definitions/Glossary

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

Job ID: 380-143838-1  
SDG: Quarterly

### Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 380-143838-1

**Job ID: 380-143838-1**

**Eurofins Eaton Analytical Pomona**

## Job Narrative 380-143838-1

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 4/4/2025 10:36 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 4.5°C and 4.8°C.

### GC/MS VOA

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

### GC/MS Semi VOA

Method 625.1\_SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-555182. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 625 SIM

Method 625.1\_SIM: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 570-553677 and analytical batch 570-556409 recovered outside control limits for the following analyte(s): Benzidine. Benzidine has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method 625.1\_SIM: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 570-553677 and analytical batch 570-556409: Fluoranthene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 625.1\_SIM: The matrix spike/matrix spike duplicate (MS/MSD) for preparation batch 570-553677 and analytical batch 570-557358 exceeded control limits for the following analyte(s): Benzidine, Note that this analyte is a known poor performer when analyzed using this method.

Method 625.1\_SIM: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 570-553677 and analytical batch 570-557358 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 625.1\_SIM: The method blank for preparation batch 570-555182 contained Aniline above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 625.1\_SIM: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 570-553677 and analytical batch 570-556409: Fluoranthene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 625.1\_SIM: The continuing calibration verification (CCV) associated with batch 570-558586 recovered above the upper control limit for 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are:AIEA GULCH WELLS PUMP 1 (331-201-TP071) (380-143838-1) and (CCVIS 570-558586/2).

Method 625.1\_SIM: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation

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# Case Narrative

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

Job ID: 380-143838-1

## Job ID: 380-143838-1 (Continued)

## Eurofins Eaton Analytical Pomona

batch 570-555182 and analytical batch 570-558249 recovered outside control limits for the following analyte(s): 3-Nitroaniline, 4-Chloroaniline, 4-Nitroaniline, Aniline and Benzidine. 3-Nitroaniline, 4-Chloroaniline, 4-Nitroaniline, Aniline and Benzidine have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method 625.1\_SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-555182 and analytical batch 570-558249 recovered outside control limits for the following analytes: 3-Nitroaniline, 4-Chloroaniline, 4-Nitroaniline, Benzidine and N-Nitrosodiphenylamine.

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

### Gasoline Range Organics

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

### Diesel Range Organics

Method 8015B\_DRO\_LL\_CS: The method reporting limit check (MRL) for preparation batch 570-554296 and analytical batch 570-557672 recovered outside control limits for the following analytes: C10-C28. These analytes were biased high in the MRL and were not detected in the associated samples; therefore, the data have been reported.

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

### GC Semi VOA

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

### Hydrocarbons

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

### Pesticides/PCBs

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

### HPLC/IC

Method 300\_OF\_28D\_PREC: The continuing calibration blank (CCB) for analytical batch 380-145652 contained Chloride above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 300\_OF\_28D\_PREC: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 380-145652 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 300\_OF\_28D\_PREC: Due to the high concentration of Chloride, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 380-145652 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 300\_OF\_48H\_PREC: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: AIEA GULCH WELLS PUMP 1 (331-201-TP071) (380-143838-1) and AIEA GULCH WELLS PUMP 2 (331-202-TP072) (380-143838-2). The client was notified and a resample was scheduled. (XWB4)

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

### Metals

Method 200.7: The method blank for analytical batch 380-145860 contained Magnesium above the method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

### General Chemistry

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

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# Case Narrative

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

Job ID: 380-143838-1

**Job ID: 380-143838-1 (Continued)**

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

# Detection Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1**  
**(331-201-TP071)**  
**PWSID Number: HI0000331**

**Lab Sample ID: 380-143838-1**

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Bromide	130		5.0	ug/L	1		300.0	Total/NA
Chloride	95	F1 ^2	1.0	mg/L	2		300.0	Total/NA
Sulfate	13		0.25	mg/L	1		300.0	Total/NA
Calcium	21		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	17	B	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.3		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	32		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	2.7		0.90	ug/L	1		200.8	Total/NA
Copper	3.3		1.0	ug/L	1		200.8	Total/NA
Selenium	2.4		2.0	ug/L	1		200.8	Total/NA
Zinc	12		5.0	ug/L	1		200.8	Total/NA
Alkalinity	55		4.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	55		4.0	mg/L	1		SM 2320B	Total/NA
Specific Conductance	430		2.0	umhos/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	300		20	mg/L	1		SM 2540C	Total/NA
pH	8.0	HF		SU	1		SM 4500 H+ B	Total/NA

**Client Sample ID: AIEA GULCH WELLS PUMP 2**  
**(331-202-TP072)**  
**PWSID Number: HI0000331**

**Lab Sample ID: 380-143838-2**

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Bromide	120		5.0	ug/L	1		300.0	Total/NA
Chloride	87	^2	1.0	mg/L	2		300.0	Total/NA
Sulfate	12		0.25	mg/L	1		300.0	Total/NA
Calcium	19		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	16	B	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.1		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	30		0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	2.5		0.90	ug/L	1		200.8	Total/NA
Copper	2.1		1.0	ug/L	1		200.8	Total/NA
Alkalinity	56		4.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	56		4.0	mg/L	1		SM 2320B	Total/NA
Specific Conductance	400		2.0	umhos/cm	1		SM 2510B	Total/NA
Total Dissolved Solids	270		20	mg/L	1		SM 2540C	Total/NA
pH	7.9	HF		SU	1		SM 4500 H+ B	Total/NA

**Client Sample ID: TB: AIEA GULCH WELLS PUMP 1**  
**(331-201-TP071)**

**Lab Sample ID: 380-143838-3**

No Detections.

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

**Lab Sample ID: 380-143838-4**

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: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-1**

Date Collected: 04/02/25 09:49

Matrix: Drinking Water

Date Received: 04/04/25 10:36

PWSID Number: HI0000331

**Method: EPA-DW 524.2 - Total Trihalomethanes**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trihalomethanes, Total	<0.50		0.50	ug/L			04/05/25 08:21	1

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS SIM)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tertiary Butyl Alcohol (TBA)	<2.0		2.0	ug/L			04/06/25 01:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130		04/06/25 01:02	1
4-Bromofluorobenzene (Surr)	105		70 - 130		04/06/25 01:02	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		04/06/25 01:02	1

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			04/05/25 08:21	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			04/05/25 08:21	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			04/05/25 08:21	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			04/05/25 08:21	1
1,1-Dichlorethylene	<0.50		0.50	ug/L			04/05/25 08:21	1
1,1-Dichloroethane	<0.50		0.50	ug/L			04/05/25 08:21	1
1,1-Dichloropropene	<0.50		0.50	ug/L			04/05/25 08:21	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			04/05/25 08:21	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
1,2-Dichloroethane	<0.50		0.50	ug/L			04/05/25 08:21	1
1,2-Dichloropropane	<0.50		0.50	ug/L			04/05/25 08:21	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
1,3-Dichloropropane	<0.50		0.50	ug/L			04/05/25 08:21	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			04/05/25 08:21	1
2,2-Dichloropropane	<0.50		0.50	ug/L			04/05/25 08:21	1
2-Butanone (MEK)	<5.0		5.0	ug/L			04/05/25 08:21	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			04/05/25 08:21	1
Acetone	<500		500	ug/L			04/05/25 08:21	1
Benzene	<0.50		0.50	ug/L			04/05/25 08:21	1
Bromobenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
Bromochloromethane	<0.50		0.50	ug/L			04/05/25 08:21	1
Bromodichloromethane	<0.50		0.50	ug/L			04/05/25 08:21	1
Bromoethane	<0.50		0.50	ug/L			04/05/25 08:21	1
Bromoform	<0.50		0.50	ug/L			04/05/25 08:21	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			04/05/25 08:21	1
Carbon disulfide	<0.50		0.50	ug/L			04/05/25 08:21	1
Carbon tetrachloride	<0.50		0.50	ug/L			04/05/25 08:21	1
Chlorobenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
Chlorodibromomethane	<0.50		0.50	ug/L			04/05/25 08:21	1
Chloroethane	<0.50		0.50	ug/L			04/05/25 08:21	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			04/05/25 08:21	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			04/05/25 08:21	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 08:21	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			04/05/25 08:21	1

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# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-1**

Date Collected: 04/02/25 09:49

Matrix: Drinking Water

Date Received: 04/04/25 10:36

PWSID Number: HI0000331

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	<0.50		0.50	ug/L			04/05/25 08:21	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			04/05/25 08:21	1
Dichloromethane	<0.50		0.50	ug/L			04/05/25 08:21	1
Diisopropyl ether	<3.0		3.0	ug/L			04/05/25 08:21	1
Ethylbenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
Hexachlorobutadiene	<0.50	^3+	0.50	ug/L			04/05/25 08:21	1
Isopropylbenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
m,p-Xylenes	<0.50		0.50	ug/L			04/05/25 08:21	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			04/05/25 08:21	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			04/05/25 08:21	1
Naphthalene	<0.50		0.50	ug/L			04/05/25 08:21	1
n-Butylbenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
N-Propylbenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
o-Chlorotoluene	<0.50		0.50	ug/L			04/05/25 08:21	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			04/05/25 08:21	1
o-Xylene	<0.50		0.50	ug/L			04/05/25 08:21	1
p-Chlorotoluene	<0.50		0.50	ug/L			04/05/25 08:21	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			04/05/25 08:21	1
p-Isopropyltoluene	<0.50		0.50	ug/L			04/05/25 08:21	1
sec-Butylbenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
Styrene	<0.50		0.50	ug/L			04/05/25 08:21	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			04/05/25 08:21	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			04/05/25 08:21	1
tert-Butylbenzene	<0.50		0.50	ug/L			04/05/25 08:21	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			04/05/25 08:21	1
Toluene	<0.50		0.50	ug/L			04/05/25 08:21	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 08:21	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			04/05/25 08:21	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			04/05/25 08:21	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			04/05/25 08:21	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			04/05/25 08:21	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			04/05/25 08:21	1
Xylenes, Total	<0.50		0.50	ug/L			04/05/25 08:21	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		04/05/25 08:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		04/05/25 08:21	1
4-Bromofluorobenzene (Surr)	99		70 - 130		04/05/25 08:21	1
Toluene-d8 (Surr)	101		70 - 130		04/05/25 08:21	1

**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		04/07/25 08:00	04/08/25 14:33	1
2,4'-DDD	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
2,4'-DDE	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
2,4'-DDT	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-1**

Date Collected: 04/02/25 09:49

Matrix: Drinking Water

Date Received: 04/04/25 10:36

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
2-Methylnaphthalene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
4,4'-DDD	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
4,4'-DDE	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
4,4' DDT	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Acenaphthene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Acenaphthylene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Acetochlor	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Alachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
alpha-BHC	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
alpha-Chlordane	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Anthracene	<0.019		0.019	ug/L		04/07/25 08:00	04/08/25 14:33	1
Atrazine	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Benz(a)anthracene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Benzo[a]pyrene	<0.019		0.019	ug/L		04/07/25 08:00	04/08/25 14:33	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		04/07/25 08:00	04/08/25 14:33	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Benzo[k]fluoranthene	<0.019		0.019	ug/L		04/07/25 08:00	04/08/25 14:33	1
beta-BHC	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		04/07/25 08:00	04/08/25 14:33	1
Bromacil	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Butachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Butylbenzylphthalate	<0.49		0.49	ug/L		04/07/25 08:00	04/08/25 14:33	1
Chlorobenzilate	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Chloroneb	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Chlorpyrifos	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Chrysene	<0.019		0.019	ug/L		04/07/25 08:00	04/08/25 14:33	1
delta-BHC	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		04/07/25 08:00	04/08/25 14:33	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Dieldrin	<0.0097		0.0097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Diethylphthalate	<0.49		0.49	ug/L		04/07/25 08:00	04/08/25 14:33	1
Dimethylphthalate	<0.49		0.49	ug/L		04/07/25 08:00	04/08/25 14:33	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		04/07/25 08:00	04/08/25 14:33	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Endosulfan sulfate	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Endrin	<0.0097		0.0097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Endrin aldehyde	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
EPTC	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Fluoranthene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Fluorene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
gamma-Chlordane	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Heptachlor	<0.0097		0.0097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		04/07/25 08:00	04/08/25 14:33	1

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# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-1**

Date Collected: 04/02/25 09:49

Matrix: Drinking Water

Date Received: 04/04/25 10:36

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Isophorone	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Lindane	<0.0097		0.0097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Malathion	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Methoxychlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Metolachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Molinate	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Naphthalene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Parathion	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Phenanthrene	<0.039		0.039	ug/L		04/07/25 08:00	04/08/25 14:33	1
Propachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Pyrene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Simazine	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Terbacil	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Terbutylazine	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Thiobencarb	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		04/07/25 08:00	04/08/25 14:33	1
trans-Nonachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:33	1
Trifluralin	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:33	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	04/07/25 08:00	04/08/25 14:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	99		70 - 130	04/07/25 08:00	04/08/25 14:33	1
Perylene-d12	90		70 - 130	04/07/25 08:00	04/08/25 14:33	1
Triphenylphosphate	103		70 - 130	04/07/25 08:00	04/08/25 14:33	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		04/04/25 09:08	04/16/25 08:29	1
2,4,5-Trichlorophenol	<4.8		4.8	ug/L		04/04/25 09:08	04/16/25 08:29	1
2,4,6-Trichlorophenol	<0.97		0.97	ug/L		04/04/25 09:08	04/16/25 08:29	1
2,4-Dichlorophenol	<0.97		0.97	ug/L		04/04/25 09:08	04/16/25 08:29	1
2,4-Dinitrophenol	<4.8		4.8	ug/L		04/04/25 09:08	04/16/25 08:29	1
2,6-Dichlorophenol	<4.8		4.8	ug/L		04/04/25 09:08	04/16/25 08:29	1
2-Chloronaphthalene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
2-Chlorophenol	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
2-Methylnaphthalene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
2-Methylphenol	<0.97		0.97	ug/L		04/04/25 09:08	04/16/25 08:29	1
2-Nitroaniline	<4.8		4.8	ug/L		04/04/25 09:08	04/16/25 08:29	1
2-Nitrophenol	<4.8		4.8	ug/L		04/04/25 09:08	04/16/25 08:29	1
3/4-Methylphenol	<1.9		1.9	ug/L		04/04/25 09:08	04/16/25 08:29	1
3-Nitroaniline	<4.8		4.8	ug/L		04/04/25 09:08	04/16/25 08:29	1
4,6-Dinitro-2-methylphenol	<4.8		4.8	ug/L		04/04/25 09:08	04/16/25 08:29	1
4-Bromophenyl phenyl ether	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-1**

Date Collected: 04/02/25 09:49

Matrix: Drinking Water

Date Received: 04/04/25 10:36

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
4-Chloro-3-methylphenol	<0.97		0.97	ug/L		04/04/25 09:08	04/16/25 08:29	1
4-Chloroaniline	<4.8		4.8	ug/L		04/04/25 09:08	04/16/25 08:29	1
4-Chlorophenyl phenyl ether	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
4-Nitroaniline	<4.8		4.8	ug/L		04/04/25 09:08	04/16/25 08:29	1
4-Nitrophenol	4.8		4.8	ug/L		04/04/25 09:08	04/16/25 08:29	1
Acenaphthene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Acenaphthylene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Aniline	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Anthracene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Benzidine	<4.8	*	4.8	ug/L		04/04/25 09:08	04/16/25 08:29	1
Benzo[a]anthracene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Benzo[a]pyrene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Benzoic acid	<9.7		9.7	ug/L		04/04/25 09:08	04/16/25 08:29	1
Benzyl alcohol	<0.97		0.97	ug/L		04/04/25 09:08	04/16/25 08:29	1
Bis(2-chloroethoxy)methane	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Bis(2-chloroethyl)ether	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
bis (2-Chloroisopropyl) ether	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Chrysene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Dibenzofuran	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Fluoranthene	<0.19	*+	0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Fluorene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Hexachloroethane	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Naphthalene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Nitrobenzene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
N-Nitrosodi-n-propylamine	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
N-Nitrosodiphenylamine	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Pentachlorophenol	<0.97		0.97	ug/L		04/04/25 09:08	04/16/25 08:29	1
Phenanthrene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1
Phenol	<0.97		0.97	ug/L		04/04/25 09:08	04/16/25 08:29	1
Pyrene	<0.19		0.19	ug/L		04/04/25 09:08	04/16/25 08:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	116		28 - 127	04/04/25 09:08	04/16/25 08:29	1
2-Fluorobiphenyl (Surr)	92		31 - 120	04/04/25 09:08	04/16/25 08:29	1
2-Fluorophenol (Surr)	54		17 - 120	04/04/25 09:08	04/16/25 08:29	1
Nitrobenzene-d5 (Surr)	98		27 - 120	04/04/25 09:08	04/16/25 08:29	1
Phenol-d6 (Surr)	33		10 - 120	04/04/25 09:08	04/16/25 08:29	1
p-Terphenyl-d14 (Surr)	91		45 - 120	04/04/25 09:08	04/16/25 08:29	1

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	5.0	T J	ug/L		2.14	N/A	04/04/25 09:08	04/16/25 16:25	1
2-Butenal, 3-methyl-	9.4	T J N	ug/L		2.78	107-86-8	04/04/25 09:08	04/16/25 16:25	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-1**

Date Collected: 04/02/25 09:49  
Date Received: 04/04/25 10:36

Matrix: Drinking Water  
PWSID Number: HI0000331

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	5.5	T J	ug/L		2.88	N/A	04/04/25 09:08	04/16/25 16:25	1
2-Pentene, 2,4,4-trimethyl-	6.5	T J N	ug/L		3.01	107-40-4	04/04/25 09:08	04/16/25 16:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	92		33 - 139				04/04/25 09:08	04/16/25 16:25	1
2-Fluorobiphenyl (Surr)	79		33 - 126				04/04/25 09:08	04/16/25 16:25	1
2-Fluorophenol (Surr)	56		12 - 120				04/04/25 09:08	04/16/25 16:25	1
Nitrobenzene-d5 (Surr)	87		36 - 120				04/04/25 09:08	04/16/25 16:25	1
Phenol-d6 (Surr)	25		10 - 120				04/04/25 09:08	04/16/25 16:25	1
p-Terphenyl-d14 (Surr)	78		47 - 131				04/04/25 09:08	04/16/25 16:25	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			04/15/25 18:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		38 - 134				04/15/25 18:31	1

## Method: EPA-DW2 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.020		0.020	ug/L		04/09/25 11:50	04/09/25 16:58	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		04/09/25 11:50	04/09/25 16:58	1
1,2-Dibromoethane	<0.010		0.010	ug/L		04/09/25 11:50	04/09/25 16:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	108		60 - 140			04/09/25 11:50	04/09/25 16:58	1

## Method: EPA 505 - Organochlorine Pesticides/PCBs (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	<0.50		0.50	ug/L		04/04/25 15:40	04/05/25 09:22	1
Chlordane (n.o.s.)	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:22	1
PCB-1016	<0.070		0.070	ug/L		04/04/25 15:40	04/05/25 09:22	1
PCB-1221	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:22	1
PCB-1232	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:22	1
PCB-1242	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:22	1
PCB-1248	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:22	1
PCB-1254	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:22	1
PCB-1260	<0.070		0.070	ug/L		04/04/25 15:40	04/05/25 09:22	1
Polychlorinated biphenyls, Total	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	95		70 - 130			04/04/25 15:40	04/05/25 09:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<26		26	ug/L		04/06/25 17:06	04/14/25 20:33	1
Motor Oil Range Organics [C24-C36]	<26		26	ug/L		04/06/25 17:06	04/14/25 20:33	1
C8-C18	<26		26	ug/L		04/06/25 17:06	04/14/25 20:33	1

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-1**

Date Collected: 04/02/25 09:49  
Date Received: 04/04/25 10:36

Matrix: Drinking Water  
PWSID Number: HI0000331

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	87		60 - 130	04/06/25 17:06	04/14/25 20:33	1

**Method: SW846 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	<0.10		0.10	mg/L			04/12/25 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Hexafluoro-2-propanol (Surr)	81		54 - 120		04/12/25 18:15	1

**Method: EPA 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	130		5.0	ug/L			04/09/25 05:57	1
Chloride	95	F1 ^2	1.0	mg/L			04/05/25 13:09	2
Sulfate	13		0.25	mg/L			04/04/25 22:17	1

**Method: EPA 200.7 Rev 4.4 - Metals (ICP)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	21		0.10	mg/L			04/07/25 13:45	1
Magnesium	17	B	0.10	mg/L			04/07/25 13:45	1
Potassium	2.3		0.10	mg/L			04/07/25 13:45	1
Sodium	32		0.10	mg/L			04/07/25 13:45	1

**Method: EPA 200.8 - Mercury (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	ug/L		04/07/25 10:20	04/08/25 14:46	1

**Method: EPA 200.8 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	ug/L			04/07/25 14:55	1
Arsenic	<1.0		1.0	ug/L			04/07/25 14:55	1
Beryllium	<0.30		0.30	ug/L			04/08/25 12:58	1
Cadmium	<0.50		0.50	ug/L			04/07/25 14:55	1
Chromium	2.7		0.90	ug/L			04/07/25 14:55	1
Copper	3.3		1.0	ug/L			04/07/25 14:55	1
Lead	<0.50		0.50	ug/L			04/07/25 14:55	1
Nickel	<1.0		1.0	ug/L			04/07/25 14:55	1
Selenium	2.4		2.0	ug/L			04/07/25 14:55	1
Silver	<0.50		0.50	ug/L			04/07/25 14:55	1
Thallium	<0.30		0.30	ug/L			04/07/25 14:55	1
Zinc	12		5.0	ug/L			04/07/25 14:55	1

**General Chemistry**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity (SM 2320B)	55		4.0	mg/L			04/04/25 19:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	55		4.0	mg/L			04/04/25 19:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.0		4.0	mg/L			04/04/25 19:43	1
Specific Conductance (SM 2510B)	430		2.0	umhos/cm			04/04/25 19:43	1
Total Dissolved Solids (SM 2540C)	300		20	mg/L			04/04/25 16:23	1
Fluoride (SM 4500 F C)	<0.050		0.050	mg/L			04/04/25 23:46	1

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# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1**  
**(331-201-TP071)**

**Lab Sample ID: 380-143838-1**

Date Collected: 04/02/25 09:49  
Date Received: 04/04/25 10:36

Matrix: Drinking Water  
PWSID Number: HI0000331

## General Chemistry (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	8.0	HF		SU			04/04/25 19:43	1
Sulfide (SM 4500 S2 D)	<0.050		0.050	mg/L			04/07/25 17:38	1

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

**Lab Sample ID: 380-143838-2**

Date Collected: 04/02/25 10:24  
Date Received: 04/04/25 10:36

Matrix: Drinking Water  
PWSID Number: HI0000331

## Method: EPA-DW 524.2 - Total Trihalomethanes

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trihalomethanes, Total	<0.50		0.50	ug/L			04/05/25 08:44	1

## Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tertiary Butyl Alcohol (TBA)	<2.0		2.0	ug/L			04/06/25 01:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		04/06/25 01:24	1
4-Bromofluorobenzene (Surr)	106		70 - 130		04/06/25 01:24	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		04/06/25 01:24	1

## Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			04/05/25 08:44	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			04/05/25 08:44	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			04/05/25 08:44	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			04/05/25 08:44	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 08:44	1
1,1-Dichloroethane	<0.50		0.50	ug/L			04/05/25 08:44	1
1,1-Dichloropropene	<0.50		0.50	ug/L			04/05/25 08:44	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			04/05/25 08:44	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
1,2-Dichloroethane	<0.50		0.50	ug/L			04/05/25 08:44	1
1,2-Dichloropropane	<0.50		0.50	ug/L			04/05/25 08:44	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
1,3-Dichloropropane	<0.50		0.50	ug/L			04/05/25 08:44	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			04/05/25 08:44	1
2,2-Dichloropropane	<0.50		0.50	ug/L			04/05/25 08:44	1
2-Butanone (MEK)	<5.0		5.0	ug/L			04/05/25 08:44	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			04/05/25 08:44	1
Acetone	<500		500	ug/L			04/05/25 08:44	1
Benzene	<0.50		0.50	ug/L			04/05/25 08:44	1
Bromobenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
Bromochloromethane	<0.50		0.50	ug/L			04/05/25 08:44	1
Bromodichloromethane	<0.50		0.50	ug/L			04/05/25 08:44	1
Bromoethane	<0.50		0.50	ug/L			04/05/25 08:44	1
Bromoform	<0.50		0.50	ug/L			04/05/25 08:44	1

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# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-2**

Date Collected: 04/02/25 10:24

Matrix: Drinking Water

Date Received: 04/04/25 10:36

PWSID Number: HI0000331

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			04/05/25 08:44	1
Carbon disulfide	<0.50		0.50	ug/L			04/05/25 08:44	1
Carbon tetrachloride	<0.50		0.50	ug/L			04/05/25 08:44	1
Chlorobenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
Chlorodibromomethane	<0.50		0.50	ug/L			04/05/25 08:44	1
Chloroethane	<0.50		0.50	ug/L			04/05/25 08:44	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			04/05/25 08:44	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			04/05/25 08:44	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 08:44	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			04/05/25 08:44	1
Dibromomethane	<0.50		0.50	ug/L			04/05/25 08:44	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			04/05/25 08:44	1
Dichloromethane	<0.50		0.50	ug/L			04/05/25 08:44	1
Diisopropyl ether	<3.0		3.0	ug/L			04/05/25 08:44	1
Ethylbenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
Hexachlorobutadiene	<0.50	^3+	0.50	ug/L			04/05/25 08:44	1
Isopropylbenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
m,p-Xylenes	<0.50		0.50	ug/L			04/05/25 08:44	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			04/05/25 08:44	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			04/05/25 08:44	1
Naphthalene	<0.50		0.50	ug/L			04/05/25 08:44	1
n-Butylbenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
N-Propylbenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
o-Chlorotoluene	<0.50		0.50	ug/L			04/05/25 08:44	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			04/05/25 08:44	1
o-Xylene	<0.50		0.50	ug/L			04/05/25 08:44	1
p-Chlorotoluene	<0.50		0.50	ug/L			04/05/25 08:44	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			04/05/25 08:44	1
p-Isopropyltoluene	<0.50		0.50	ug/L			04/05/25 08:44	1
sec-Butylbenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
Styrene	<0.50		0.50	ug/L			04/05/25 08:44	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			04/05/25 08:44	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			04/05/25 08:44	1
tert-Butylbenzene	<0.50		0.50	ug/L			04/05/25 08:44	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			04/05/25 08:44	1
Toluene	<0.50		0.50	ug/L			04/05/25 08:44	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 08:44	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			04/05/25 08:44	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			04/05/25 08:44	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			04/05/25 08:44	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			04/05/25 08:44	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			04/05/25 08:44	1
Xylenes, Total	<0.50		0.50	ug/L			04/05/25 08:44	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.57	T J	ug/L		9.90	N/A		04/05/25 08:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		04/05/25 08:44	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-2**

Date Collected: 04/02/25 10:24

Matrix: Drinking Water

Date Received: 04/04/25 10:36

PWSID Number: HI0000331

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130		04/05/25 08:44	1
Toluene-d8 (Surr)	101		70 - 130		04/05/25 08:44	1

**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		04/07/25 08:00	04/08/25 17:15	1
2,4'-DDD	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
2,4'-DDE	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
2,4'-DDT	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
2,4-Dinitrotoluene	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
2,6 Dinitrotoluene	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
2-Methylnaphthalene	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
4,4'-DDD	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
4,4'-DDE	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
4,4'-DDT	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Acenaphthene	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Acenaphthylene	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Acetochlor	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Alachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
alpha-BHC	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
alpha-Chlordane	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Anthracene	<0.020		0.020	ug/L		04/07/25 08:00	04/08/25 17:15	1
Atrazine	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Benz(a)anthracene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Benzo[a]pyrene	<0.020		0.020	ug/L		04/07/25 08:00	04/08/25 17:15	1
Benzo[b]fluoranthene	<0.020		0.020	ug/L		04/07/25 08:00	04/08/25 17:15	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Benzo[k]fluoranthene	<0.020		0.020	ug/L		04/07/25 08:00	04/08/25 17:15	1
beta-BHC	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59	ug/L		04/07/25 08:00	04/08/25 17:15	1
Bromacil	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Butachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Butylbenzylphthalate	<0.49		0.49	ug/L		04/07/25 08:00	04/08/25 17:15	1
Chlorobenzilate	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Chloroneb	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Chlorpyrifos	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Chrysene	<0.020		0.020	ug/L		04/07/25 08:00	04/08/25 17:15	1
delta-BHC	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Di(2-ethylhexyl)adipate	<0.59		0.59	ug/L		04/07/25 08:00	04/08/25 17:15	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Dieldrin	<0.0098		0.0098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Diethylphthalate	<0.49		0.49	ug/L		04/07/25 08:00	04/08/25 17:15	1
Dimethylphthalate	<0.49		0.49	ug/L		04/07/25 08:00	04/08/25 17:15	1
Di-n-butyl phthalate	<0.98		0.98	ug/L		04/07/25 08:00	04/08/25 17:15	1
Di-n-octyl phthalate	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Endosulfan I (Alpha)	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-2**

Date Collected: 04/02/25 10:24

Matrix: Drinking Water

Date Received: 04/04/25 10:36

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II (Beta)	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Endosulfan sulfate	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Endrin	<0.0098		0.0098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Endrin aldehyde	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
EPTC	0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Fluoranthene	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Fluorene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
gamma-Chlordane	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Heptachlor	<0.0098		0.0098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Heptachlor epoxide (isomer B)	<0.0098		0.0098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Hexachlorobenzene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Isophorone	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Lindane	<0.0098		0.0098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Malathion	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Methoxychlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Metolachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Molinate	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Naphthalene	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Parathion	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Pendimethalin (Penoxaline)	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Phenanthrene	<0.039		0.039	ug/L		04/07/25 08:00	04/08/25 17:15	1
Propachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Pyrene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Simazine	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Terbacil	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Terbutylazine	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Thiobencarb	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1
Total Permethrin (mixed isomers)	<0.20		0.20	ug/L		04/07/25 08:00	04/08/25 17:15	1
trans-Nonachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 17:15	1
Trifluralin	<0.098		0.098	ug/L		04/07/25 08:00	04/08/25 17:15	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	04/07/25 08:00	04/08/25 17:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	04/07/25 08:00	04/08/25 17:15	1
Perylene-d12	91		70 - 130	04/07/25 08:00	04/08/25 17:15	1
Triphenylphosphate	106		70 - 130	04/07/25 08:00	04/08/25 17:15	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		04/08/25 13:10	04/14/25 17:48	1
2,4,5-Trichlorophenol	<4.8		4.8	ug/L		04/08/25 13:10	04/14/25 17:48	1
2,4,6-Trichlorophenol	<0.96		0.96	ug/L		04/08/25 13:10	04/14/25 17:48	1
2,4-Dichlorophenol	<0.96		0.96	ug/L		04/08/25 13:10	04/14/25 17:48	1
2,4-Dinitrophenol	<4.8		4.8	ug/L		04/08/25 13:10	04/14/25 17:48	1
2,6-Dichlorophenol	<4.8		4.8	ug/L		04/08/25 13:10	04/14/25 17:48	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-2**

Date Collected: 04/02/25 10:24

Matrix: Drinking Water

Date Received: 04/04/25 10:36

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
2-Chloronaphthalene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
2-Chlorophenol	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
2-Methylnaphthalene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
2-Methylphenol	<0.96		0.96	ug/L		04/08/25 13:10	04/14/25 17:48	1
2 Nitroaniline	<4.8		4.8	ug/L		04/08/25 13:10	04/14/25 17:48	1
2-Nitrophenol	<4.8		4.8	ug/L		04/08/25 13:10	04/14/25 17:48	1
3/4-Methylphenol	<1.9		1.9	ug/L		04/08/25 13:10	04/14/25 17:48	1
3-Nitroaniline	<4.8	*- *1	4.8	ug/L		04/08/25 13:10	04/14/25 17:48	1
4,6-Dinitro-2-methylphenol	<4.8		4.8	ug/L		04/08/25 13:10	04/14/25 17:48	1
4-Bromophenyl phenyl ether	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
4-Chloro-3-methylphenol	<0.96		0.96	ug/L		04/08/25 13:10	04/14/25 17:48	1
4-Chloroaniline	<4.8	*- *1	4.8	ug/L		04/08/25 13:10	04/14/25 17:48	1
4-Chlorophenyl phenyl ether	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
4-Nitroaniline	<4.8	*- *1	4.8	ug/L		04/08/25 13:10	04/14/25 17:48	1
4-Nitrophenol	<4.8		4.8	ug/L		04/08/25 13:10	04/14/25 17:48	1
Acenaphthene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Acenaphthylene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Aniline	<0.19	B *-	0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Anthracene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Benzidine	<4.8	*- *1	4.8	ug/L		04/08/25 13:10	04/14/25 17:48	1
Benzo[a]anthracene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Benzo[a]pyrene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Benzo[b]fluoranthene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Benzo[g,h,i]perylene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Benzo[k]fluoranthene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Benzoic acid	<9.6		9.6	ug/L		04/08/25 13:10	04/14/25 17:48	1
Benzyl alcohol	<0.96		0.96	ug/L		04/08/25 13:10	04/14/25 17:48	1
Bis(2-chloroethoxy)methane	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Bis(2-chloroethyl)ether	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
bis (2-Chloroisopropyl) ether	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Chrysene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Dibenz(a,h)anthracene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Dibenzofuran	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Fluoranthene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Fluorene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Hexachloroethane	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Naphthalene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Nitrobenzene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
N-Nitrosodi-n-propylamine	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
N-Nitrosodiphenylamine	<0.19	*1	0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Pentachlorophenol	<0.96		0.96	ug/L		04/08/25 13:10	04/14/25 17:48	1
Phenanthrene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1
Phenol	<0.96		0.96	ug/L		04/08/25 13:10	04/14/25 17:48	1
Pyrene	<0.19		0.19	ug/L		04/08/25 13:10	04/14/25 17:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	103		28 - 127	04/08/25 13:10	04/14/25 17:48	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-2**

Date Collected: 04/02/25 10:24

Matrix: Drinking Water

Date Received: 04/04/25 10:36

PWSID Number: HI0000331

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	95		31 - 120	04/08/25 13:10	04/14/25 17:48	1
2-Fluorophenol (Surr)	44		17 - 120	04/08/25 13:10	04/14/25 17:48	1
Nitrobenzene-d5 (Surr)	91		27 - 120	04/08/25 13:10	04/14/25 17:48	1
Phenol-d6 (Surr)	25		10 - 120	04/08/25 13:10	04/14/25 17:48	1
p-Terphenyl-d14 (Surr)	97		45 - 120	04/08/25 13:10	04/14/25 17:48	1

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	6.8	T J	ug/L		2.14	N/A	04/04/25 20:19	04/16/25 16:48	1
2-Pentenal, (E)-	12	T J N	ug/L		2.78	1576-87-0	04/04/25 20:19	04/16/25 16:48	1
Unknown	6.0	T J	ug/L		2.88	N/A	04/04/25 20:19	04/16/25 16:48	1
1-(1-Methyl-cyclohexyl)-ethanone	6.1	T J N	ug/L		3.01	1000193-88-2	04/04/25 20:19	04/16/25 16:48	1
Cyclopentasiloxane, decamethyl-	4.0	T J N	ug/L		4.46	541-02-6	04/04/25 20:19	04/16/25 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	97		33 - 139	04/04/25 20:19	04/16/25 16:48	1
2-Fluorobiphenyl (Surr)	89		33 - 126	04/04/25 20:19	04/16/25 16:48	1
2-Fluorophenol (Surr)	52		12 - 120	04/04/25 20:19	04/16/25 16:48	1
Nitrobenzene-d5 (Surr)	96		36 - 120	04/04/25 20:19	04/16/25 16:48	1
Phenol-d6 (Surr)	31		10 - 120	04/04/25 20:19	04/16/25 16:48	1
p-Terphenyl-d14 (Surr)	93		47 - 131	04/04/25 20:19	04/16/25 16:48	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			04/15/25 18:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		38 - 134		04/15/25 18:56	1

### Method: EPA-DW2 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.020		0.020	ug/L		04/09/25 11:50	04/09/25 17:20	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		04/09/25 11:50	04/09/25 17:20	1
1,2-Dibromoethane	<0.010		0.010	ug/L		04/09/25 11:50	04/09/25 17:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	104		60 - 140	04/09/25 11:50	04/09/25 17:20	1

### Method: EPA 505 - Organochlorine Pesticides/PCBs (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	<0.51		0.51	ug/L		04/04/25 15:40	04/05/25 09:44	1
Chlordane (n.o.s.)	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:44	1
PCB-1016	<0.071		0.071	ug/L		04/04/25 15:40	04/05/25 09:44	1
PCB-1221	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:44	1
PCB-1232	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:44	1
PCB-1242	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:44	1
PCB-1248	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:44	1
PCB-1254	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:44	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-2**

Date Collected: 04/02/25 10:24

Matrix: Drinking Water

Date Received: 04/04/25 10:36

PWSID Number: HI0000331

## Method: EPA 505 - Organochlorine Pesticides/PCBs (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	<0.071		0.071	ug/L		04/04/25 15:40	04/05/25 09:44	1
Polychlorinated biphenyls, Total	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 09:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro- <i>m</i> -xylene	96		70 - 130			04/04/25 15:40	04/05/25 09:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<27		27	ug/L		04/06/25 17:06	04/14/25 20:55	1
Motor Oil Range Organics [C24-C36]	<27		27	ug/L		04/06/25 17:06	04/14/25 20:55	1
C8-C18	<27		27	ug/L		04/06/25 17:06	04/14/25 20:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	97		60 - 130			04/06/25 17:06	04/14/25 20:55	1

## Method: SW846 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	<0.10		0.10	mg/L			04/12/25 18:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Hexafluoro-2-propanol (Surr)	88		54 - 120				04/12/25 18:37	1

## Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	120		5.0	ug/L			04/09/25 08:35	1
Chloride	87	^2	1.0	mg/L			04/05/25 13:47	2
Sulfate	12		0.25	mg/L			04/04/25 22:43	1

## Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	19		0.10	mg/L			04/07/25 13:47	1
Magnesium	16	B	0.10	mg/L			04/07/25 13:47	1
Potassium	2.1		0.10	mg/L			04/07/25 13:47	1
Sodium	30		0.10	mg/L			04/07/25 13:47	1

## Method: EPA 200.8 - Mercury (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	ug/L		04/07/25 10:20	04/08/25 14:49	1

## Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.0		1.0	ug/L			04/07/25 14:57	1
Arsenic	<1.0		1.0	ug/L			04/07/25 14:57	1
Beryllium	<0.30		0.30	ug/L			04/08/25 13:08	1
Cadmium	<0.50		0.50	ug/L			04/07/25 14:57	1
Chromium	2.5		0.90	ug/L			04/07/25 14:57	1
Copper	2.1		1.0	ug/L			04/07/25 14:57	1
Lead	<0.50		0.50	ug/L			04/07/25 14:57	1
Nickel	<1.0		1.0	ug/L			04/07/25 14:57	1
Selenium	<2.0		2.0	ug/L			04/07/25 14:57	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-2**

Date Collected: 04/02/25 10:24

Matrix: Drinking Water

Date Received: 04/04/25 10:36

PWSID Number: HI0000331

**Method: EPA 200.8 - Metals (ICP/MS) (Continued)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.50		0.50	ug/L			04/07/25 14:57	1
Thallium	<0.30		0.30	ug/L			04/07/25 14:57	1
Zinc	<5.0		5.0	ug/L			04/07/25 14:57	1

**General Chemistry**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity (SM 2320B)	56		4.0	mg/L			04/04/25 19:35	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	56		4.0	mg/L			04/04/25 19:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.0		4.0	mg/L			04/04/25 19:35	1
Specific Conductance (SM 2510B)	400		2.0	umhos/cm			04/04/25 19:35	1
Total Dissolved Solids (SM 2540C)	270		20	mg/L			04/04/25 16:23	1
Fluoride (SM 4500 F C)	<0.050		0.050	mg/L			04/04/25 22:54	1
pH (SM 4500 H+ B)	7.9	HF		SU			04/04/25 19:35	1
Sulfide (SM 4500 S2 D)	<0.050		0.050	mg/L			04/07/25 17:38	1

**Client Sample ID: TB: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-3**

Date Collected: 04/02/25 09:49

Matrix: Water

Date Received: 04/04/25 10:36

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS SIM)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tertiary Butyl Alcohol (TBA)	<2.0		2.0	ug/L			04/06/25 01:47	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Toluene-d8 (Surr)	98		70 - 130				04/06/25 01:47	1
4-Bromofluorobenzene (Surr)	101		70 - 130				04/06/25 01:47	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				04/06/25 01:47	1

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			04/05/25 09:07	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			04/05/25 09:07	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			04/05/25 09:07	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			04/05/25 09:07	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 09:07	1
1,1-Dichloroethane	<0.50		0.50	ug/L			04/05/25 09:07	1
1,1-Dichloropropene	<0.50		0.50	ug/L			04/05/25 09:07	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			04/05/25 09:07	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
1,2-Dichloroethane	<0.50		0.50	ug/L			04/05/25 09:07	1
1,2-Dichloropropane	<0.50		0.50	ug/L			04/05/25 09:07	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
1,3-Dichloropropane	<0.50		0.50	ug/L			04/05/25 09:07	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			04/05/25 09:07	1
2,2-Dichloropropane	<0.50		0.50	ug/L			04/05/25 09:07	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: TB: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-3**

**Date Collected: 04/02/25 09:49**

**Matrix: Water**

**Date Received: 04/04/25 10:36**

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<5.0		5.0	ug/L			04/05/25 09:07	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			04/05/25 09:07	1
Acetone	<500		500	ug/L			04/05/25 09:07	1
Benzene	<0.50		0.50	ug/L			04/05/25 09:07	1
Bromobenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
Bromochloromethane	<0.50		0.50	ug/L			04/05/25 09:07	1
Bromodichloromethane	<0.50		0.50	ug/L			04/05/25 09:07	1
Bromoethane	<0.50		0.50	ug/L			04/05/25 09:07	1
Bromoform	<0.50		0.50	ug/L			04/05/25 09:07	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			04/05/25 09:07	1
Carbon disulfide	<0.50		0.50	ug/L			04/05/25 09:07	1
Carbon tetrachloride	<0.50		0.50	ug/L			04/05/25 09:07	1
Chlorobenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
Chlorodibromomethane	<0.50		0.50	ug/L			04/05/25 09:07	1
Chloroethane	<0.50		0.50	ug/L			04/05/25 09:07	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			04/05/25 09:07	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			04/05/25 09:07	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 09:07	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			04/05/25 09:07	1
Dibromomethane	<0.50		0.50	ug/L			04/05/25 09:07	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			04/05/25 09:07	1
Dichloromethane	<0.50		0.50	ug/L			04/05/25 09:07	1
Diisopropyl ether	<3.0		3.0	ug/L			04/05/25 09:07	1
Ethylbenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
Hexachlorobutadiene	<0.50	^3+	0.50	ug/L			04/05/25 09:07	1
Isopropylbenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
m,p-Xylenes	<0.50		0.50	ug/L			04/05/25 09:07	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			04/05/25 09:07	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			04/05/25 09:07	1
Naphthalene	<0.50		0.50	ug/L			04/05/25 09:07	1
n-Butylbenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
N-Propylbenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
o-Chlorotoluene	<0.50		0.50	ug/L			04/05/25 09:07	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			04/05/25 09:07	1
o-Xylene	<0.50		0.50	ug/L			04/05/25 09:07	1
p-Chlorotoluene	<0.50		0.50	ug/L			04/05/25 09:07	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			04/05/25 09:07	1
p-Isopropyltoluene	<0.50		0.50	ug/L			04/05/25 09:07	1
sec-Butylbenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
Styrene	<0.50		0.50	ug/L			04/05/25 09:07	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			04/05/25 09:07	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			04/05/25 09:07	1
tert-Butylbenzene	<0.50		0.50	ug/L			04/05/25 09:07	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			04/05/25 09:07	1
Toluene	<0.50		0.50	ug/L			04/05/25 09:07	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 09:07	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			04/05/25 09:07	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			04/05/25 09:07	1

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: TB: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-3**

Date Collected: 04/02/25 09:49

Matrix: Water

Date Received: 04/04/25 10:36

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			04/05/25 09:07	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			04/05/25 09:07	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			04/05/25 09:07	1
Xylenes, Total	<0.50		0.50	ug/L			04/05/25 09:07	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	21	T J	ug/L		9.02	N/A		04/05/25 09:07	1
Unknown	0.56	T J	ug/L		10.38	N/A		04/05/25 09:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		04/05/25 09:07	1
4-Bromofluorobenzene (Surr)	97		70 - 130		04/05/25 09:07	1
Toluene-d8 (Surr)	99		70 - 130		04/05/25 09:07	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			04/15/25 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		38 - 134		04/15/25 16:27	1

**Method: EPA-DW2 504.1 - EDB, DBCP and 1,2,3-TCP (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.020		0.020	ug/L		04/09/25 11:50	04/09/25 15:33	1
1,2 Dibromo 3 Chloropropane	<0.010		0.010	ug/L		04/09/25 11:50	04/09/25 15:33	1
1,2-Dibromoethane	<0.010		0.010	ug/L		04/09/25 11:50	04/09/25 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	106		60 - 140	04/09/25 11:50	04/09/25 15:33	1

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

**Lab Sample ID: 380-143838-4**

Date Collected: 04/02/25 10:24

Matrix: Water

Date Received: 04/04/25 10:36

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS SIM)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tertiary Butyl Alcohol (TBA)	<2.0		2.0	ug/L			04/06/25 02:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		04/06/25 02:09	1
4-Bromofluorobenzene (Surr)	102		70 - 130		04/06/25 02:09	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		04/06/25 02:09	1

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			04/05/25 09:30	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			04/05/25 09:30	1
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			04/05/25 09:30	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			04/05/25 09:30	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-4**

Date Collected: 04/02/25 10:24

Matrix: Water

Date Received: 04/04/25 10:36

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichlorethylene	<0.50		0.50	ug/L			04/05/25 09:30	1
1,1-Dichloroethane	<0.50		0.50	ug/L			04/05/25 09:30	1
1,1-Dichloropropene	<0.50		0.50	ug/L			04/05/25 09:30	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
1,2,3-Trichloropropane	0.50		0.50	ug/L			04/05/25 09:30	1
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
1,2-Dichloroethane	<0.50		0.50	ug/L			04/05/25 09:30	1
1,2-Dichloropropane	<0.50		0.50	ug/L			04/05/25 09:30	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
1,3-Dichloropropane	<0.50		0.50	ug/L			04/05/25 09:30	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			04/05/25 09:30	1
2,2-Dichloropropane	<0.50		0.50	ug/L			04/05/25 09:30	1
2-Butanone (MEK)	<5.0		5.0	ug/L			04/05/25 09:30	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			04/05/25 09:30	1
Acetone	<500		500	ug/L			04/05/25 09:30	1
Benzene	<0.50		0.50	ug/L			04/05/25 09:30	1
Bromobenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
Bromochloromethane	<0.50		0.50	ug/L			04/05/25 09:30	1
Bromodichloromethane	<0.50		0.50	ug/L			04/05/25 09:30	1
Bromoethane	<0.50		0.50	ug/L			04/05/25 09:30	1
Bromoform	<0.50		0.50	ug/L			04/05/25 09:30	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			04/05/25 09:30	1
Carbon disulfide	<0.50		0.50	ug/L			04/05/25 09:30	1
Carbon tetrachloride	<0.50		0.50	ug/L			04/05/25 09:30	1
Chlorobenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
Chlorodibromomethane	<0.50		0.50	ug/L			04/05/25 09:30	1
Chloroethane	<0.50		0.50	ug/L			04/05/25 09:30	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			04/05/25 09:30	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			04/05/25 09:30	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 09:30	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			04/05/25 09:30	1
Dibromomethane	<0.50		0.50	ug/L			04/05/25 09:30	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			04/05/25 09:30	1
Dichloromethane	<0.50		0.50	ug/L			04/05/25 09:30	1
Diisopropyl ether	<3.0		3.0	ug/L			04/05/25 09:30	1
Ethylbenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
Hexachlorobutadiene	<0.50	^3+	0.50	ug/L			04/05/25 09:30	1
Isopropylbenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
m,p-Xylenes	<0.50		0.50	ug/L			04/05/25 09:30	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			04/05/25 09:30	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			04/05/25 09:30	1
Naphthalene	<0.50		0.50	ug/L			04/05/25 09:30	1
n-Butylbenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
N-Propylbenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
o-Chlorotoluene	<0.50		0.50	ug/L			04/05/25 09:30	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			04/05/25 09:30	1
o-Xylene	<0.50		0.50	ug/L			04/05/25 09:30	1

# Client Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-4**

**Date Collected: 04/02/25 10:24**

**Matrix: Water**

**Date Received: 04/04/25 10:36**

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
p-Chlorotoluene	<0.50		0.50	ug/L			04/05/25 09:30	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			04/05/25 09:30	1
p-Isopropyltoluene	<0.50		0.50	ug/L			04/05/25 09:30	1
sec-Butylbenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
Styrene	0.50		0.50	ug/L			04/05/25 09:30	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			04/05/25 09:30	1
Tert-butyl ethyl ether	<3.0		3.0	ug/L			04/05/25 09:30	1
tert-Butylbenzene	<0.50		0.50	ug/L			04/05/25 09:30	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			04/05/25 09:30	1
Toluene	<0.50		0.50	ug/L			04/05/25 09:30	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 09:30	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			04/05/25 09:30	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			04/05/25 09:30	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			04/05/25 09:30	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			04/05/25 09:30	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			04/05/25 09:30	1
Xylenes, Total	<0.50		0.50	ug/L			04/05/25 09:30	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	16	TJ	ug/L		9.02	N/A		04/05/25 09:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		04/05/25 09:30	1
4-Bromofluorobenzene (Surr)	103		70 - 130		04/05/25 09:30	1
Toluene-d8 (Surr)	102		70 - 130		04/05/25 09:30	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			04/15/25 16:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		38 - 134		04/15/25 16:52	1

**Method: EPA-DW2 504.1 - EDB, DBCP and 1,2,3-TCP (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.020		0.020	ug/L		04/09/25 11:50	04/09/25 15:55	1
1,2-Dibromo-3-Chloropropane	<0.010		0.010	ug/L		04/09/25 11:50	04/09/25 15:55	1
1,2-Dibromoethane	<0.010		0.010	ug/L		04/09/25 11:50	04/09/25 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane (Surr)	105		60 - 140	04/09/25 11:50	04/09/25 15:55	1

# Action Limit Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-143838-1

(331-201-TP071)

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	HI Org	EPAMCL	EPAMCL	Method	Prep Type
				Limit	Limit	S Limit		
Trihalomethanes, Total	<0.50		ug/L		80		524.2	Total/NA
1,1,1-Trichloroethane	<0.50		ug/L	200.0	200		524.2	Total/NA
1,1,2-Trichloroethane	<0.50		ug/L	5.000	5		524.2	Total/NA
1,1-Dichloroethylene	<0.50		ug/L	7.000	7		524.2	Total/NA
1,2,3-Trichloropropane	<0.50		ug/L	0.6000			524.2	Total/NA
1,2,4-Trichlorobenzene	<0.50		ug/L	70.00	70		524.2	Total/NA
1,2-Dichloroethane	<0.50		ug/L	5.000	5		524.2	Total/NA
1,2-Dichloropropane	<0.50		ug/L	5.000	5		524.2	Total/NA
Benzene	<0.50		ug/L	5.000	5		524.2	Total/NA
Carbon tetrachloride	<0.50		ug/L	5.000	5		524.2	Total/NA
Chlorobenzene	<0.50		ug/L	100.0	100		524.2	Total/NA
cis-1,2-Dichloroethylene	<0.50		ug/L	70.00	70		524.2	Total/NA
Dichloromethane	<0.50		ug/L	5.000	5		524.2	Total/NA
Ethylbenzene	<0.50		ug/L	700.0	700		524.2	Total/NA
o-Dichlorobenzene (1,2-DCB)	<0.50		ug/L	600.0	600		524.2	Total/NA
p-Dichlorobenzene (1,4-DCB)	<0.50		ug/L	75.000	75		524.2	Total/NA
Styrene	<0.50		ug/L	100.0	100		524.2	Total/NA
Tetrachloroethene (PCE)	<0.50		ug/L	5.000	5		524.2	Total/NA
Toluene	<0.50		ug/L	1000	1000		524.2	Total/NA
trans-1,2-Dichloroethylene	<0.50		ug/L	100.0	100		524.2	Total/NA
Trichloroethylene (TCE)	<0.50		ug/L	5.000	5		524.2	Total/NA
Vinyl Chloride (VC)	<0.30		ug/L	2.000	2		524.2	Total/NA
Xylenes, Total	<0.50		ug/L	10000	10000		524.2	Total/NA
Alachlor	<0.049		ug/L		2		525.2	Total/NA
Atrazine	<0.049		ug/L		3		525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L		0.2		525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L		6		525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L		400		525.2	Total/NA
Endrin	<0.0097		ug/L		2		525.2	Total/NA
Heptachlor	<0.0097		ug/L		0.4		525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		ug/L		0.2		525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L		1		525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L		50		525.2	Total/NA
Lindane	<0.0097		ug/L		0.2		525.2	Total/NA
Methoxychlor	<0.049		ug/L		40		525.2	Total/NA
Simazine	<0.049		ug/L		4		525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L		0.2		625.1 SIM	Total/NA
Pentachlorophenol	<0.97		ug/L		1		625.1 SIM	Total/NA
1,2,3-Trichloropropane	<0.020		ug/L	0.6000			504.1	Total/NA
1,2-Dibromo-3-Chloropropane	<0.010		ug/L		0.2		504.1	Total/NA
1,2-Dibromoethane	<0.010		ug/L		0.05		504.1	Total/NA
Toxaphene	<0.50		ug/L		3		505	Total/NA
Chlordane (n.o.s.)	<0.10		ug/L		2		505	Total/NA
Polychlorinated biphenyls, Total	<0.10		ug/L		0.5		505	Total/NA
Chloride	95	F1 ^2	mg/L			250	300.0	Total/NA

# Action Limit Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1**  
**(331-201-TP071) (Continued)**  
PWSID Number: HI0000331

**Lab Sample ID: 380-143838-1**

## Compliance Check

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

Analyte	Result	Qualifier	Unit	HI Org Limit	EPAMCL Limit	EPAMCL S Limit	Method	Prep Type
Sulfate	13		mg/L			250	300.0	Total/NA
Antimony	<1.0		ug/L		6		200.8	Total/NA
Arsenic	<1.0		ug/L		10		200.8	Total/NA
Beryllium	<0.30		ug/L		4		200.8	Total/NA
Cadmium	<0.50		ug/L		5		200.8	Total/NA
Chromium	2.7		ug/L		100		200.8	Total/NA
Copper	3.3		ug/L			1000	200.8	Total/NA
Lead	<0.50		ug/L		15.000		200.8	Total/NA
Selenium	2.4		ug/L		50		200.8	Total/NA
Silver	<0.50		ug/L			100	200.8	Total/NA
Thallium	<0.30		ug/L		2		200.8	Total/NA
Zinc	12		ug/L			5000	200.8	Total/NA
Total Dissolved Solids	300		mg/L			500	SM 2540C	Total/NA
Fluoride	<0.050		mg/L		4	2	SM 4500 F C	Total/NA
pH	8.0	HF	SU			6.5	SM 4500 H+ B	Total/NA

**Client Sample ID: AIEA GULCH WELLS PUMP 2**  
**(331-202-TP072)**  
PWSID Number: HI0000331

**Lab Sample ID: 380-143838-2**

## 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	HI Org Limit	EPAMCL Limit	EPAMCL S Limit	Method	Prep Type
Trihalomethanes, Total	<0.50		ug/L		80		524.2	Total/NA
1,1,1-Trichloroethane	<0.50		ug/L	200.0	200		524.2	Total/NA
1,1,2-Trichloroethane	<0.50		ug/L	5.000	5		524.2	Total/NA
1,1-Dichloroethylene	<0.50		ug/L	7.000	7		524.2	Total/NA
1,2,3-Trichloropropane	<0.50		ug/L	0.6000			524.2	Total/NA
1,2,4-Trichlorobenzene	<0.50		ug/L	70.00	70		524.2	Total/NA
1,2-Dichloroethane	<0.50		ug/L	5.000	5		524.2	Total/NA
1,2-Dichloropropane	<0.50		ug/L	5.000	5		524.2	Total/NA
Benzene	<0.50		ug/L	5.000	5		524.2	Total/NA
Carbon tetrachloride	<0.50		ug/L	5.000	5		524.2	Total/NA
Chlorobenzene	<0.50		ug/L	100.0	100		524.2	Total/NA
cis-1,2-Dichloroethylene	<0.50		ug/L	70.00	70		524.2	Total/NA
Dichloromethane	<0.50		ug/L	5.000	5		524.2	Total/NA
Ethylbenzene	<0.50		ug/L	700.0	700		524.2	Total/NA
o-Dichlorobenzene (1,2-DCB)	<0.50		ug/L	600.0	600		524.2	Total/NA
p-Dichlorobenzene (1,4-DCB)	<0.50		ug/L	75.000	75		524.2	Total/NA
Styrene	<0.50		ug/L	100.0	100		524.2	Total/NA
Tetrachloroethene (PCE)	<0.50		ug/L	5.000	5		524.2	Total/NA
Toluene	<0.50		ug/L	1000	1000		524.2	Total/NA
trans-1,2-Dichloroethylene	<0.50		ug/L	100.0	100		524.2	Total/NA

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# Action Limit Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 2  
(331-202-TP072) (Continued)**  
PWSID Number: HI0000331

**Lab Sample ID: 380-143838-2**

## 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	HI Org	EPAMCL	EPAMCL	Method	Prep Type
				Limit	Limit	S Limit		
Trichloroethylene (TCE)	<0.50		ug/L	5.000	5		524.2	Total/NA
Vinyl Chloride (VC)	<0.30		ug/L	2.000	2		524.2	Total/NA
Xylenes, Total	<0.50		ug/L	10000	10000		524.2	Total/NA
Alachlor	<0.049		ug/L		2		525.2	Total/NA
Atrazine	<0.049		ug/L		3		525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L		0.2		525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L		6		525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59		ug/L		400		525.2	Total/NA
Endrin	<0.0098		ug/L		2		525.2	Total/NA
Heptachlor	<0.0098		ug/L		0.4		525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0098		ug/L		0.2		525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L		1		525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L		50		525.2	Total/NA
Lindane	<0.0098		ug/L		0.2		525.2	Total/NA
Methoxychlor	<0.049		ug/L		40		525.2	Total/NA
Simazine	<0.049		ug/L		4		525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L		0.2		625.1 SIM	Total/NA
Pentachlorophenol	<0.96		ug/L		1		625.1 SIM	Total/NA
1,2,3-Trichloropropane	<0.020		ug/L	0.6000			504.1	Total/NA
1,2-Dibromo-3-Chloropropane	<0.010		ug/L		0.2		504.1	Total/NA
1,2-Dibromoethane	<0.010		ug/L		0.05		504.1	Total/NA
Toxaphene	<0.51		ug/L		3		505	Total/NA
Chlordane (n.o.s.)	<0.10		ug/L		2		505	Total/NA
Polychlorinated biphenyls, Total	<0.10		ug/L		0.5		505	Total/NA
Chloride	87 ^2		mg/L			250	300.0	Total/NA
Sulfate	12		mg/L			250	300.0	Total/NA
Antimony	<1.0		ug/L		6		200.8	Total/NA
Arsenic	<1.0		ug/L		10		200.8	Total/NA
Beryllium	<0.30		ug/L		4		200.8	Total/NA
Cadmium	<0.50		ug/L		5		200.8	Total/NA
Chromium	2.5		ug/L		100		200.8	Total/NA
Copper	2.1		ug/L			1000	200.8	Total/NA
Lead	<0.50		ug/L		15.000		200.8	Total/NA
Selenium	<2.0		ug/L		50		200.8	Total/NA
Silver	<0.50		ug/L			100	200.8	Total/NA
Thallium	<0.30		ug/L		2		200.8	Total/NA
Zinc	<5.0		ug/L			5000	200.8	Total/NA
Total Dissolved Solids	270		mg/L			500	SM 2540C	Total/NA
Fluoride	<0.050		mg/L		4	2	SM 4500 F C	Total/NA
pH	7.9 HF		SU			6.5	SM 4500 H+ B	Total/NA

# Action Limit Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: TB: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-3**

## 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	HI Org Limit	EPAMCL Limit	RL	Method	Prep Type
1,1,1-Trichloroethane	<0.50		ug/L	200.0	200	0.50	524.2	Total/NA
1,1,2-Trichloroethane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
1,1-Dichlorethylene	<0.50		ug/L	7.000	7	0.50	524.2	Total/NA
1,2,3-Trichloropropane	<0.50		ug/L	0.6000		0.50	524.2	Total/NA
1,2,4-Trichlorobenzene	<0.50		ug/L	70.00	70	0.50	524.2	Total/NA
1,2-Dichloroethane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
1,2-Dichloropropane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Benzene	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Carbon tetrachloride	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Chlorobenzene	<0.50		ug/L	100.0	100	0.50	524.2	Total/NA
cis-1,2-Dichloroethylene	<0.50		ug/L	70.00	70	0.50	524.2	Total/NA
Dichloromethane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Ethylbenzene	<0.50		ug/L	700.0	700	0.50	524.2	Total/NA
o-Dichlorobenzene (1,2-DCB)	<0.50		ug/L	600.0	600	0.50	524.2	Total/NA
p-Dichlorobenzene (1,4-DCB)	<0.50		ug/L	75.000	75	0.50	524.2	Total/NA
Styrene	<0.50		ug/L	100.0	100	0.50	524.2	Total/NA
Tetrachloroethene (PCE)	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Toluene	<0.50		ug/L	1000	1000	0.50	524.2	Total/NA
trans-1,2-Dichloroethylene	<0.50		ug/L	100.0	100	0.50	524.2	Total/NA
Trichloroethylene (TCE)	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Vinyl Chloride (VC)	<0.30		ug/L	2.000	2	0.30	524.2	Total/NA
Xylenes, Total	<0.50		ug/L	10000	10000	0.50	524.2	Total/NA
1,2,3-Trichloropropane	<0.020		ug/L	0.6000		0.020	504.1	Total/NA
1,2-Dibromo-3-Chloropropane	<0.010		ug/L		0.2	0.010	504.1	Total/NA
1,2-Dibromoethane	<0.010		ug/L		0.05	0.010	504.1	Total/NA

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

**Lab Sample ID: 380-143838-4**

## 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	HI Org Limit	EPAMCL Limit	RL	Method	Prep Type
1,1,1-Trichloroethane	<0.50		ug/L	200.0	200	0.50	524.2	Total/NA
1,1,2-Trichloroethane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
1,1-Dichlorethylene	<0.50		ug/L	7.000	7	0.50	524.2	Total/NA
1,2,3-Trichloropropane	<0.50		ug/L	0.6000		0.50	524.2	Total/NA
1,2,4-Trichlorobenzene	<0.50		ug/L	70.00	70	0.50	524.2	Total/NA
1,2-Dichloroethane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
1,2-Dichloropropane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Benzene	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Carbon tetrachloride	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Chlorobenzene	<0.50		ug/L	100.0	100	0.50	524.2	Total/NA
cis-1,2-Dichloroethylene	<0.50		ug/L	70.00	70	0.50	524.2	Total/NA
Dichloromethane	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA

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# Action Limit Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-4**

## 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	HI Org Limit	EPAMCL Limit	RL	Method	Prep Type
Ethylbenzene	<0.50		ug/L	700.0	700	0.50	524.2	Total/NA
o-Dichlorobenzene (1,2-DCB)	<0.50		ug/L	600.0	600	0.50	524.2	Total/NA
p-Dichlorobenzene (1,4-DCB)	<0.50		ug/L	75.000	75	0.50	524.2	Total/NA
Styrene	<0.50		ug/L	100.0	100	0.50	524.2	Total/NA
Tetrachloroethene (PCE)	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Toluene	<0.50		ug/L	1000	1000	0.50	524.2	Total/NA
trans-1,2-Dichloroethylene	<0.50		ug/L	100.0	100	0.50	524.2	Total/NA
Trichloroethylene (TCE)	<0.50		ug/L	5.000	5	0.50	524.2	Total/NA
Vinyl Chloride (VC)	<0.30		ug/L	2.000	2	0.30	524.2	Total/NA
Xylenes, Total	<0.50		ug/L	10000	10000	0.50	524.2	Total/NA
1,2,3-Trichloropropane	<0.020		ug/L	0.6000		0.020	504.1	Total/NA
1,2-Dibromo-3-Chloropropane	<0.010		ug/L		0.2	0.010	504.1	Total/NA
1,2-Dibromoethane	<0.010		ug/L		0.05	0.010	504.1	Total/NA

# Surrogate Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 524.2 - Volatile Organic Compounds (GC/MS SIM)

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	BFB (70-130)	DCA (70-130)
380-143838-1	AIEA GULCH WELLS PUMP 1 (	97	105	98
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	100	106	100

**Surrogate Legend**  
TOL = Toluene-d8 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DCA = 1,2-Dichloroethane-d4 (Surr)

## Method: 524.2 - Volatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	BFB (70-130)	DCA (70-130)
380-143838-3	TB: AIEA GULCH WELLS PUMF	98	101	99
380-143838-4	TB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	98	102	101
LCS 380-145654/8	Lab Control Sample	100	98	98
LCSD 380-145654/9	Lab Control Sample Dup	100	99	100
MB 380-145654/11	Method Blank	98	102	100

**Surrogate Legend**  
TOL = Toluene-d8 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DCA = 1,2-Dichloroethane-d4 (Surr)

## Method: 524.2 - Volatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (50-150)	BFB (50-150)	DCA (50-150)
MRL 380-145654/10	Lab Control Sample	98	103	100

**Surrogate Legend**  
TOL = Toluene-d8 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DCA = 1,2-Dichloroethane-d4 (Surr)

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DCA (70-130)	BFB (70-130)	TOL (70-130)
380-143838-1	AIEA GULCH WELLS PUMP 1 (	105	99	101
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	105	100	101

**Surrogate Legend**  
DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
TOL = Toluene-d8 (Surr)

# Surrogate Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DCA (70-130)	BFB (70-130)	TOL (70-130)
380-143838-3	TB: AIEA GULCH WELLS PUMF	102	97	99
380-143838-4	TB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	98	103	102
LCS 380-145599/3	Lab Control Sample	107	101	99
LCSD 380-145599/4	Lab Control Sample Dup	107	104	100
MB 380-145599/5	Method Blank	108	99	99
MRL 380-145568/13	Lab Control Sample	97	106	102
MRL 380-145568/14	Lab Control Sample	97	99	101

**Surrogate Legend**  
DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
TOL = Toluene-d8 (Surr)

## 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)
380-143838-1	AIEA GULCH WELLS PUMP 1 (	99	90	103
380-143838-1 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	98	93	107
380-143838-1 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	98	94	107
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	98	91	106

**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)
LCS 380-145789/23-A	Lab Control Sample	98	96	106
MB 380-145789/21-A	Method Blank	98	87	105
MRL 380-145789/22-A	Lab Control Sample	97	88	103

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

# Surrogate Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

## 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)
380-143838-1	AIEA GULCH WELLS PUMP 1 (	92	79	56	87	25	78
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	97	89	52	96	31	93

**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 570-553677/1-A	Method Blank	85	113	68	120	39	115

**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)
380-143838-1	AIEA GULCH WELLS PUMP 1 (	116	92	54	98	33	91
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	103	95	44	91	25	97

**Surrogate Legend**

TBP = 2,4,6-Tribromophenol (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 2FP = 2-Fluorophenol (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 PHL6 = Phenol-d6 (Surr)  
 TPHd14 = p-Terphenyl-d14 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHd14 (45-120)
380-143376-A-3-A MS	Matrix Spike	112	96	64	81	43	105

# Surrogate Summary

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

Job ID: 380-143838-1  
 SDG: Quarterly

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (28-127)	FBP (31-120)	2FP (17-120)	NBZ (27-120)	PHL6 (10-120)	TPHd14 (45-120)
380-143376-A-3-B MSD	Matrix Spike Duplicate	113	101	69	84	45	107
LCS 570-553677/2-A	Lab Control Sample	103	98	70	81	48	104
LCS 570-555182/2-A	Lab Control Sample	79	84	53	88	34	92
LCSD 570-553677/3-A	Lab Control Sample Dup	104	104	75	89	53	109
LCSD 570-555182/3-A	Lab Control Sample Dup	87	92	60	94	39	98
MB 570-553677/1-A	Method Blank	108	94	65	100	43	105
MB 570-555182/1-A	Method Blank	100	88	46	88	27	94

### 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)
380-143838-1	AIEA GULCH WELLS PUMP 1 (	87
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	87

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB1 (38-134)
380-143838-3	TB: AIEA GULCH WELLS PUMI	85
380-143838-4	TB: AIEA GULCH WELLS PUMI 2 (331-202-TP072)	86
380-144829-C-3 MS	Matrix Spike	91
380-144829-C-3 MSD	Matrix Spike Duplicate	93
LCS 570-558265/4	Lab Control Sample	90
LCSD 570-558265/5	Lab Control Sample Dup	90
MB 570-558265/6	Method Blank	87
MRL 570-558265/3	Lab Control Sample	87

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

# Surrogate Summary

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

Job ID: 380-143838-1  
 SDG: Quarterly

## Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Matrix: Drinking Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DBPP1 (60-140)
380-143838-1	AIEA GULCH WELLS PUMP 1 (	108
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	104

**Surrogate Legend**

DBPP = 1,2-Dibromopropane (Surr)

## Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DBPP1 (60-140)
380-143838-3	TB: AIEA GULCH WELLS PUMF	106
380-143838-4	TB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	105
380-144238-DR-1-A MS	Matrix Spike	99
380-144238-DS-1-A DU	Duplicate	105
LCS 380-146213/29-A	Lab Control Sample	105
MBL 380-146213/4-A	Method Blank	98
MRL 380-146213/2-A	Lab Control Sample	105
MRL 380-146213/3-A	Lab Control Sample	105

**Surrogate Legend**

DBPP = 1,2-Dibromopropane (Surr)

## Method: 505 - Organochlorine Pesticides/PCBs (GC)

Matrix: Drinking Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (70-130)
380-143838-1	AIEA GULCH WELLS PUMP 1 (	95
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	96

**Surrogate Legend**

TCX = Tetrachloro-m-xylene

## Method: 505 - Organochlorine Pesticides/PCBs (GC)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (70-130)
380-143067-AP-1-A MS	Matrix Spike	94
380-143067-AR-1-A MS	Matrix Spike	74
380-143769-BU-1-A MS	Matrix Spike	91
380-143769-BV-1-A MS	Matrix Spike	94
LCS 380-145540/28-A	Lab Control Sample	99
LCS 380-145540/30-A	Lab Control Sample	101
LCS 380-145540/31-A	Lab Control Sample	99
LCSD 380-145540/29-A	Lab Control Sample Dup	98
MB 380-145540/3-A	Method Blank	98

# Surrogate Summary

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

Job ID: 380-143838-1  
 SDG: Quarterly

## Method: 505 - Organochlorine Pesticides/PCBs (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (70-130)
MRL 380-145540/1-A	Lab Control Sample	104
MRL 380-145540/2-A	Lab Control Sample	99

**Surrogate Legend**

TCX = Tetrachloro-m-xylene

## 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)
380-143838-1	AIEA GULCH WELLS PUMP 1 (	87
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	97

**Surrogate Legend**

OTCSN = n-Octacosane (Surr)

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-143376-B-3-B MS	Matrix Spike	104
380-143376-B-3-C MSD	Matrix Spike Duplicate	94
LCS 570-554296/2-A	Lab Control Sample	103
LCSD 570-554296/3-A	Lab Control Sample Dup	106
MB 570-554296/1-A	Method Blank	96
MRL 570-554296/4-A	Lab Control Sample	106

**Surrogate Legend**

OTCSN = n-Octacosane (Surr)

## Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Matrix: Drinking Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HF2PP1 (54-120)
380-143838-1	AIEA GULCH WELLS PUMP 1 (	81
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	88

**Surrogate Legend**

HF2PP = Hexafluoro-2-propanol (Surr)

# Surrogate Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HF2PP1 (54-120)
380-143415-AC-1 MS	Matrix Spike	86
380-143415-AC-1 MSD	Matrix Spike Duplicate	88
LCS 570-557182/4	Lab Control Sample	95
LCSD 570-557182/5	Lab Control Sample Dup	94
MB 570-557182/3	Method Blank	91
MRL 570-557182/6	Lab Control Sample	116

### Surrogate Legend

HF2PP = Hexafluoro-2-propanol (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: 380-143838-1  
SDG: Quarterly

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MRL 380-145568/13**  
**Matrix: Water**  
**Analysis Batch: 145568**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
m,p-Xylenes	0.500	0.604		ug/L		121	50 - 150
Vinyl Chloride (VC)	0.250	0.332		ug/L		133	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	106		70 - 130
Toluene-d8 (Surr)	102		70 - 130

**Lab Sample ID: MRL 380-145568/14**  
**Matrix: Water**  
**Analysis Batch: 145568**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	0.500	0.426	J	ug/L		85	50 - 150
1,1,1-Trichloroethane	0.500	0.421	J	ug/L		84	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.483	J	ug/L		97	50 - 150
1,1,2-Trichloroethane	0.500	0.545		ug/L		109	50 - 150
1,1-Dichlorethylene	0.500	0.448	J	ug/L		90	50 - 150
1,1-Dichloroethane	0.500	0.486	J	ug/L		97	50 - 150
1,1-Dichloropropene	0.500	0.435	J	ug/L		87	50 - 150
1,2,3-Trichlorobenzene	0.500	0.666		ug/L		133	50 - 150
1,2,3-Trichloropropane	0.500	0.546		ug/L		109	50 - 150
1,2,4-Trichlorobenzene	0.500	0.653		ug/L		131	50 - 150
1,2,4-Trimethylbenzene	0.500	0.528		ug/L		106	50 - 150
1,2-Dichloroethane	0.500	0.446	J	ug/L		89	50 - 150
1,2-Dichloropropane	0.500	0.512		ug/L		102	50 - 150
1,3,5-Trimethylbenzene	0.500	0.528		ug/L		106	50 - 150
1,3-Dichloropropane	0.500	0.499	J	ug/L		100	50 - 150
1,3-Dichloropropene, Total	1.00	0.769		ug/L		77	50 - 150
2,2-Dichloropropane	0.500	0.450	J	ug/L		90	50 - 150
2-Butanone (MEK)	5.00	4.98	J	ug/L		100	50 - 150
4-Methyl-2-pentanone (MIBK)	5.00	5.33		ug/L		107	50 - 150
Acetone	5.00	4.90	J	ug/L		98	50 - 150
Benzene	0.500	0.502		ug/L		100	50 - 150
Bromobenzene	0.500	0.511		ug/L		102	50 - 150
Bromochloromethane	0.500	0.435	J	ug/L		87	50 - 150
Bromodichloromethane	0.500	0.412	J	ug/L		82	50 - 150
Bromoethane	0.500	0.423	J	ug/L		85	50 - 150
Bromoform	0.500	0.505		ug/L		101	50 - 150
Bromomethane (Methyl Bromide)	0.500	0.502		ug/L		100	50 - 150
Carbon disulfide	0.500	0.398	J	ug/L		80	50 - 150
Carbon tetrachloride	0.500	0.406	J	ug/L		81	50 - 150
Chlorobenzene	0.500	0.509		ug/L		102	50 - 150
Chlorodibromomethane	0.500	0.405	J	ug/L		81	50 - 150
cis-1,3-Dichloropropene	0.500	0.393	J	ug/L		79	50 - 150
Dichloromethane	0.500	0.477	J	ug/L		95	50 - 150
Diisopropyl ether	0.500	0.468	J	ug/L		94	50 - 150
Ethylbenzene	0.500	0.523		ug/L		105	50 - 150

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MRL 380-145568/14**  
**Matrix: Water**  
**Analysis Batch: 145568**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobutadiene	0.500	0.770	^3+	ug/L		154	50 - 150
Isopropylbenzene	0.500	0.538		ug/L		108	50 - 150
m,p-Xylenes	1.00	1.05		ug/L		105	50 - 150
m-Dichlorobenzene (1,3-DCB)	0.500	0.558		ug/L		112	50 - 150
Methyl-tert-butyl Ether (MTBE)	0.500	0.500		ug/L		100	50 - 150
Naphthalene	0.500	0.645		ug/L		129	50 - 150
n-Butylbenzene	0.500	0.549		ug/L		110	50 - 150
N-Propylbenzene	0.500	0.542		ug/L		108	50 - 150
o-Chlorotoluene	0.500	0.512		ug/L		102	50 - 150
o-Dichlorobenzene (1,2-DCB)	0.500	0.560		ug/L		112	50 - 150
o-Xylene	0.500	0.519		ug/L		104	50 - 150
p-Chlorotoluene	0.500	0.543		ug/L		109	50 - 150
p-Dichlorobenzene (1,4-DCB)	0.500	0.580		ug/L		116	50 - 150
p-Isopropyltoluene	0.500	0.558		ug/L		112	50 - 150
sec-Butylbenzene	0.500	0.572		ug/L		114	50 - 150
Styrene	0.500	0.495	J	ug/L		99	50 - 150
Tert-amyl methyl ether	0.500	0.484	J	ug/L		97	50 - 150
Tert-butyl ethyl ether	0.500	0.452	J	ug/L		90	50 - 150
tert-Butylbenzene	0.500	0.556		ug/L		111	50 - 150
Tetrachloroethene (PCE)	0.500	0.510		ug/L		102	50 - 150
Toluene	0.500	0.505		ug/L		101	50 - 150
trans-1,2-Dichloroethylene	0.500	0.452	J	ug/L		90	50 - 150
trans-1,3-Dichloropropene	0.500	0.376	J	ug/L		75	50 - 150
Trichloroethylene (TCE)	0.500	0.463	J	ug/L		93	50 - 150
Trichlorofluoromethane (Freon 11)	0.500	0.476	J	ug/L		95	50 - 150
Trichlorotrifluoroethane	0.500	0.544		ug/L		109	50 - 150
Vinyl Chloride (VC)	0.500	0.522		ug/L		104	50 - 150
Xylenes, Total	1.50	1.57		ug/L		105	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Toluene-d8 (Surr)	101		70 - 130

**Lab Sample ID: MB 380-145599/5**  
**Matrix: Water**  
**Analysis Batch: 145599**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L			04/05/25 02:20	1
1,1,1-Trichloroethane	<0.50		0.50	ug/L			04/05/25 02:20	1
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L			04/05/25 02:20	1
1,1,2-Trichloroethane	<0.50		0.50	ug/L			04/05/25 02:20	1
1,1-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 02:20	1
1,1-Dichloroethane	<0.50		0.50	ug/L			04/05/25 02:20	1
1,1-Dichloropropene	<0.50		0.50	ug/L			04/05/25 02:20	1
1,2,3-Trichlorobenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
1,2,3-Trichloropropane	<0.50		0.50	ug/L			04/05/25 02:20	1

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# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 380-145599/5**  
**Matrix: Water**  
**Analysis Batch: 145599**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
1,2,4-Trimethylbenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
1,2-Dichloroethane	<0.50		0.50	ug/L			04/05/25 02:20	1
1,2-Dichloropropane	<0.50		0.50	ug/L			04/05/25 02:20	1
1,3,5-Trimethylbenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
1,3-Dichloropropane	<0.50		0.50	ug/L			04/05/25 02:20	1
1,3-Dichloropropene, Total	<0.50		0.50	ug/L			04/05/25 02:20	1
2,2-Dichloropropane	<0.50		0.50	ug/L			04/05/25 02:20	1
2-Butanone (MEK)	<5.0		5.0	ug/L			04/05/25 02:20	1
4-Methyl-2-pentanone (MIBK)	<5.0		5.0	ug/L			04/05/25 02:20	1
Acetone	<500		500	ug/L			04/05/25 02:20	1
Benzene	<0.50		0.50	ug/L			04/05/25 02:20	1
Bromobenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
Bromochloromethane	<0.50		0.50	ug/L			04/05/25 02:20	1
Bromodichloromethane	<0.50		0.50	ug/L			04/05/25 02:20	1
Bromoethane	<0.50		0.50	ug/L			04/05/25 02:20	1
Bromoform	<0.50		0.50	ug/L			04/05/25 02:20	1
Bromomethane (Methyl Bromide)	<0.50		0.50	ug/L			04/05/25 02:20	1
Carbon disulfide	<0.50		0.50	ug/L			04/05/25 02:20	1
Carbon tetrachloride	<0.50		0.50	ug/L			04/05/25 02:20	1
Chlorobenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
Chlorodibromomethane	<0.50		0.50	ug/L			04/05/25 02:20	1
Chloroethane	<0.50		0.50	ug/L			04/05/25 02:20	1
Chloroform (Trichloromethane)	<0.50		0.50	ug/L			04/05/25 02:20	1
Chloromethane (methyl chloride)	<0.50		0.50	ug/L			04/05/25 02:20	1
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 02:20	1
cis-1,3-Dichloropropene	<0.50		0.50	ug/L			04/05/25 02:20	1
Dibromomethane	<0.50		0.50	ug/L			04/05/25 02:20	1
Dichlorodifluoromethane	<0.50		0.50	ug/L			04/05/25 02:20	1
Dichloromethane	<0.50		0.50	ug/L			04/05/25 02:20	1
Diisopropyl ether	<3.0		3.0	ug/L			04/05/25 02:20	1
Ethylbenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
Hexachlorobutadiene	<0.50		0.50	ug/L			04/05/25 02:20	1
Isopropylbenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
m,p-Xylenes	<0.50		0.50	ug/L			04/05/25 02:20	1
m-Dichlorobenzene (1,3-DCB)	<0.50		0.50	ug/L			04/05/25 02:20	1
Methyl-tert-butyl Ether (MTBE)	<0.50		0.50	ug/L			04/05/25 02:20	1
Naphthalene	<0.50		0.50	ug/L			04/05/25 02:20	1
n-Butylbenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
N-Propylbenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
o-Chlorotoluene	<0.50		0.50	ug/L			04/05/25 02:20	1
o-Dichlorobenzene (1,2-DCB)	<0.50		0.50	ug/L			04/05/25 02:20	1
o-Xylene	<0.50		0.50	ug/L			04/05/25 02:20	1
p-Chlorotoluene	<0.50		0.50	ug/L			04/05/25 02:20	1
p-Dichlorobenzene (1,4-DCB)	<0.50		0.50	ug/L			04/05/25 02:20	1
p-Isopropyltoluene	<0.50		0.50	ug/L			04/05/25 02:20	1
sec-Butylbenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
Styrene	<0.50		0.50	ug/L			04/05/25 02:20	1
Tert-amyl methyl ether	<3.0		3.0	ug/L			04/05/25 02:20	1

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 380-145599/5**  
**Matrix: Water**  
**Analysis Batch: 145599**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-butyl ethyl ether	<3.0		3.0	ug/L			04/05/25 02:20	1
tert-Butylbenzene	<0.50		0.50	ug/L			04/05/25 02:20	1
Tetrachloroethene (PCE)	<0.50		0.50	ug/L			04/05/25 02:20	1
Toluene	<0.50		0.50	ug/L			04/05/25 02:20	1
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L			04/05/25 02:20	1
trans-1,3-Dichloropropene	<0.50		0.50	ug/L			04/05/25 02:20	1
Trichloroethylene (TCE)	<0.50		0.50	ug/L			04/05/25 02:20	1
Trichlorofluoromethane (Freon 11)	<0.50		0.50	ug/L			04/05/25 02:20	1
Trichlorotrifluoroethane	<0.50		0.50	ug/L			04/05/25 02:20	1
Vinyl Chloride (VC)	<0.30		0.30	ug/L			04/05/25 02:20	1
Xylenes, Total	<0.50		0.50	ug/L			04/05/25 02:20	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		04/05/25 02:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 130		04/05/25 02:20	1
4-Bromofluorobenzene (Surr)	99		70 - 130		04/05/25 02:20	1
Toluene-d8 (Surr)	99		70 - 130		04/05/25 02:20	1

**Lab Sample ID: LCS 380-145599/3**  
**Matrix: Water**  
**Analysis Batch: 145599**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	5.00	4.53		ug/L		91	70 - 130
1,1,1-Trichloroethane	5.00	4.65		ug/L		93	70 - 130
1,1,2,2-Tetrachloroethane	5.00	5.17		ug/L		103	70 - 130
1,1,2-Trichloroethane	5.00	4.73		ug/L		95	70 - 130
1,1-Dichloroethylene	5.00	4.77		ug/L		95	70 - 130
1,1-Dichloroethane	5.00	4.74		ug/L		95	70 - 130
1,1-Dichloropropene	5.00	4.77		ug/L		95	70 - 130
1,2,3-Trichlorobenzene	5.00	6.40		ug/L		128	70 - 130
1,2,3-Trichloropropane	5.00	5.06		ug/L		101	70 - 130
1,2,4-Trichlorobenzene	5.00	6.06		ug/L		121	70 - 130
1,2,4-Trimethylbenzene	5.00	5.30		ug/L		106	70 - 130
1,2-Dichloroethane	5.00	5.15		ug/L		103	70 - 130
1,2-Dichloropropane	5.00	4.65		ug/L		93	70 - 130
1,3,5-Trimethylbenzene	5.00	5.32		ug/L		106	70 - 130
1,3-Dichloropropane	5.00	4.75		ug/L		95	70 - 130
1,3-Dichloropropene, Total	10.0	8.63		ug/L		86	70 - 130
2,2-Dichloropropane	5.00	4.25		ug/L		85	70 - 130
2-Butanone (MEK)	50.0	49.3		ug/L		99	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	49.3		ug/L		99	70 - 130
Acetone	50.0	45.5	J	ug/L		91	70 - 130
Benzene	5.00	5.32		ug/L		106	70 - 130
Bromobenzene	5.00	5.13		ug/L		103	70 - 130
Bromochloromethane	5.00	4.57		ug/L		91	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 380-145599/3**  
**Matrix: Water**  
**Analysis Batch: 145599**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	5.00	4.17		ug/L		83	70 - 130
Bromoethane	5.00	4.83		ug/L		97	70 - 130
Bromoform	5.00	4.47		ug/L		89	70 - 130
Bromomethane (Methyl Bromide)	5.00	4.50		ug/L		90	70 - 130
Carbon disulfide	5.00	4.20		ug/L		84	70 - 130
Carbon tetrachloride	5.00	4.29		ug/L		86	70 - 130
Chlorobenzene	5.00	4.86		ug/L		97	70 - 130
Chlorodibromomethane	5.00	4.42		ug/L		88	70 - 130
cis-1,3-Dichloropropene	5.00	4.38		ug/L		88	70 - 130
Dichloromethane	5.00	4.59		ug/L		92	70 - 130
Diisopropyl ether	5.00	4.57		ug/L		91	70 - 130
Ethylbenzene	5.00	4.84		ug/L		97	70 - 130
Hexachlorobutadiene	5.00	6.23		ug/L		125	70 - 130
Isopropylbenzene	5.00	5.24		ug/L		105	70 - 130
m,p-Xylenes	10.0	10.1		ug/L		101	70 - 130
m-Dichlorobenzene (1,3-DCB)	5.00	5.27		ug/L		105	70 - 130
Methyl-tert-butyl Ether (MTBE)	5.00	4.78		ug/L		96	70 - 130
Naphthalene	5.00	6.14		ug/L		123	70 - 130
n-Butylbenzene	5.00	5.31		ug/L		106	70 - 130
N-Propylbenzene	5.00	5.37		ug/L		107	70 - 130
o-Chlorotoluene	5.00	4.92		ug/L		98	70 - 130
o-Dichlorobenzene (1,2-DCB)	5.00	5.10		ug/L		102	70 - 130
o-Xylene	5.00	4.94		ug/L		99	70 - 130
p-Chlorotoluene	5.00	5.26		ug/L		105	70 - 130
p-Dichlorobenzene (1,4-DCB)	5.00	5.23		ug/L		105	70 - 130
p-Isopropyltoluene	5.00	5.67		ug/L		113	70 - 130
sec-Butylbenzene	5.00	5.58		ug/L		112	70 - 130
Styrene	5.00	4.75		ug/L		95	70 - 130
Tert-amyl methyl ether	5.00	4.85		ug/L		97	70 - 130
Tert-butyl ethyl ether	5.00	4.49		ug/L		90	70 - 130
tert-Butylbenzene	5.00	5.46		ug/L		109	70 - 130
Tetrachloroethene (PCE)	5.00	4.97		ug/L		99	70 - 130
Toluene	5.00	4.73		ug/L		95	70 - 130
trans-1,2-Dichloroethylene	5.00	4.80		ug/L		96	70 - 130
trans-1,3-Dichloropropene	5.00	4.25		ug/L		85	70 - 130
Trichloroethylene (TCE)	5.00	4.71		ug/L		94	70 - 130
Trichlorofluoromethane (Freon 11)	5.00	4.85		ug/L		97	70 - 130
Trichlorotrifluoroethane	5.00	4.75		ug/L		95	70 - 130
Vinyl Chloride (VC)	5.00	4.35		ug/L		87	70 - 130
Xylenes, Total	15.0	15.1		ug/L		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Toluene-d8 (Surr)	99		70 - 130

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 380-145599/4**  
**Matrix: Water**  
**Analysis Batch: 145599**

**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
1,1,1,2-Tetrachloroethane	5.00	4.45		ug/L		89	70 - 130	2	20
1,1,1-Trichloroethane	5.00	4.41		ug/L		88	70 - 130	5	20
1,1,2,2-Tetrachloroethane	5.00	5.11		ug/L		102	70 - 130	1	20
1,1,2-Trichloroethane	5.00	4.85		ug/L		97	70 - 130	3	20
1,1-Dichlorethylene	5.00	4.36		ug/L		87	70 - 130	9	20
1,1-Dichloroethane	5.00	4.39		ug/L		88	70 - 130	8	20
1,1-Dichloropropene	5.00	4.27		ug/L		85	70 - 130	11	20
1,2,3-Trichlorobenzene	5.00	5.60		ug/L		112	70 - 130	13	20
1,2,3-Trichloropropane	5.00	5.11		ug/L		102	70 - 130	1	20
1,2,4-Trichlorobenzene	5.00	5.34		ug/L		107	70 - 130	13	20
1,2,4-Trimethylbenzene	5.00	5.00		ug/L		100	70 - 130	6	20
1,2-Dichloroethane	5.00	5.14		ug/L		103	70 - 130	0	20
1,2-Dichloropropane	5.00	4.56		ug/L		91	70 - 130	2	20
1,3,5-Trimethylbenzene	5.00	5.01		ug/L		100	70 - 130	6	20
1,3-Dichloropropane	5.00	4.73		ug/L		95	70 - 130	0	20
1,3-Dichloropropene, Total	10.0	8.61		ug/L		86	70 - 130	0	20
2,2-Dichloropropane	5.00	3.90		ug/L		78	70 - 130	9	20
2-Butanone (MEK)	50.0	51.3		ug/L		103	70 - 130	4	20
4-Methyl-2-pentanone (MIBK)	50.0	49.6		ug/L		99	70 - 130	1	20
Acetone	50.0	45.4	J	ug/L		91	70 - 130	0	20
Benzene	5.00	5.01		ug/L		100	70 - 130	6	20
Bromobenzene	5.00	4.87		ug/L		97	70 - 130	5	20
Bromochloromethane	5.00	4.60		ug/L		92	70 - 130	1	20
Bromodichloromethane	5.00	3.98		ug/L		80	70 - 130	5	20
Bromoethane	5.00	4.51		ug/L		90	70 - 130	7	20
Bromoform	5.00	4.41		ug/L		88	70 - 130	1	20
Bromomethane (Methyl Bromide)	5.00	4.29		ug/L		86	70 - 130	5	20
Carbon disulfide	5.00	3.76		ug/L		75	70 - 130	11	20
Carbon tetrachloride	5.00	4.09		ug/L		82	70 - 130	5	20
Chlorobenzene	5.00	4.57		ug/L		91	70 - 130	6	20
Chlorodibromomethane	5.00	4.34		ug/L		87	70 - 130	2	20
cis-1,3-Dichloropropene	5.00	4.29		ug/L		86	70 - 130	2	20
Dichloromethane	5.00	4.39		ug/L		88	70 - 130	4	20
Diisopropyl ether	5.00	4.43		ug/L		89	70 - 130	3	20
Ethylbenzene	5.00	4.60		ug/L		92	70 - 130	5	20
Hexachlorobutadiene	5.00	5.32		ug/L		106	70 - 130	16	20
Isopropylbenzene	5.00	4.86		ug/L		97	70 - 130	8	20
m,p-Xylenes	10.0	9.33		ug/L		93	70 - 130	8	20
m-Dichlorobenzene (1,3-DCB)	5.00	5.01		ug/L		100	70 - 130	5	20
Methyl-tert-butyl Ether (MTBE)	5.00	4.75		ug/L		95	70 - 130	1	20
Naphthalene	5.00	5.69		ug/L		114	70 - 130	8	20
n-Butylbenzene	5.00	4.72		ug/L		94	70 - 130	12	20
N-Propylbenzene	5.00	4.94		ug/L		99	70 - 130	9	20
o-Chlorotoluene	5.00	4.65		ug/L		93	70 - 130	6	20
o-Dichlorobenzene (1,2-DCB)	5.00	4.81		ug/L		96	70 - 130	6	20
o-Xylene	5.00	4.65		ug/L		93	70 - 130	6	20
p-Chlorotoluene	5.00	4.87		ug/L		97	70 - 130	8	20
p-Dichlorobenzene (1,4-DCB)	5.00	4.99		ug/L		100	70 - 130	5	20

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 380-145599/4**  
**Matrix: Water**  
**Analysis Batch: 145599**

**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
p-Isopropyltoluene	5.00	5.05		ug/L		101	70 - 130	11	20
sec-Butylbenzene	5.00	5.08		ug/L		102	70 - 130	9	20
Styrene	5.00	4.57		ug/L		91	70 - 130	4	20
Tert-amyl methyl ether	5.00	4.79		ug/L		96	70 - 130	1	20
Tert-butyl ethyl ether	5.00	4.66		ug/L		93	70 - 130	4	20
tert-Butylbenzene	5.00	5.09		ug/L		102	70 - 130	7	20
Tetrachloroethene (PCE)	5.00	4.46		ug/L		89	70 - 130	11	20
Toluene	5.00	4.43		ug/L		89	70 - 130	7	20
trans-1,2-Dichloroethylene	5.00	4.31		ug/L		86	70 - 130	11	20
trans-1,3-Dichloropropene	5.00	4.32		ug/L		86	70 - 130	2	20
Trichloroethylene (TCE)	5.00	4.42		ug/L		88	70 - 130	6	20
Trichlorofluoromethane (Freon 11)	5.00	4.51		ug/L		90	70 - 130	7	20
Trichlorotrifluoroethane	5.00	4.27		ug/L		85	70 - 130	11	20
Vinyl Chloride (VC)	5.00	4.18		ug/L		84	70 - 130	4	20
Xylenes, Total	15.0	14.0		ug/L		93	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130
Toluene-d8 (Surr)	100		70 - 130

## Method: 524.2 - Volatile Organic Compounds (GC/MS SIM)

**Lab Sample ID: MB 380-145654/11**  
**Matrix: Water**  
**Analysis Batch: 145654**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tertiary Butyl Alcohol (TBA)	<2.0		2.0	ug/L			04/05/25 23:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		04/05/25 23:09	1
4-Bromofluorobenzene (Surr)	102		70 - 130		04/05/25 23:09	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		04/05/25 23:09	1

**Lab Sample ID: LCS 380-145654/8**  
**Matrix: Water**  
**Analysis Batch: 145654**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Tertiary Butyl Alcohol (TBA)	5.00	4.91		ug/L		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	98		70 - 130

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 524.2 - Volatile Organic Compounds (GC/MS SIM) (Continued)

**Lab Sample ID: LCSD 380-145654/9**  
**Matrix: Water**  
**Analysis Batch: 145654**

**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
Tertiary Butyl Alcohol (TBA)	5.00	4.88		ug/L		98	70 - 130	1	20
<b>LCSD LCSD</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
Toluene-d8 (Surr)	100		70 - 130						
4-Bromofluorobenzene (Surr)	99		70 - 130						
1,2-Dichloroethane-d4 (Surr)	100		70 - 130						

**Lab Sample ID: MRL 380-145654/10**  
**Matrix: Water**  
**Analysis Batch: 145654**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Tertiary Butyl Alcohol (TBA)	2.00	2.29		ug/L		115	50 - 150		
<b>MRL MRL</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
Toluene-d8 (Surr)	98		50 - 150						
4-Bromofluorobenzene (Surr)	103		50 - 150						
1,2-Dichloroethane-d4 (Surr)	100		50 - 150						

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

**Lab Sample ID: MB 380-145789/21-A**  
**Matrix: Water**  
**Analysis Batch: 145979**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 145789**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
2,4'-DDD	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
2,4'-DDE	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
2,4'-DDT	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
2,4-Dinitrotoluene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
2,6-Dinitrotoluene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
2-Methylnaphthalene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
4,4'-DDD	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
4,4'-DDE	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
4,4'-DDT	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Acenaphthene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Acenaphthylene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Acetochlor	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Alachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
alpha-BHC	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
alpha-Chlordane	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Anthracene	<0.019		0.019	ug/L		04/07/25 08:00	04/08/25 14:13	1
Atrazine	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Benz(a)anthracene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Benzo[a]pyrene	<0.019		0.019	ug/L		04/07/25 08:00	04/08/25 14:13	1
Benzo[b]fluoranthene	<0.019		0.019	ug/L		04/07/25 08:00	04/08/25 14:13	1
Benzo[g,h,i]perylene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
 SDG: Quarterly

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

**Lab Sample ID: MB 380-145789/21-A**  
**Matrix: Water**  
**Analysis Batch: 145979**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 145789**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	<0.019		0.019	ug/L		04/07/25 08:00	04/08/25 14:13	1
beta-BHC	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58	ug/L		04/07/25 08:00	04/08/25 14:13	1
Bromacil	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Butachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Butylbenzylphthalate	<0.49		0.49	ug/L		04/07/25 08:00	04/08/25 14:13	1
Chlorobenzilate	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Chloroneb	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Chlorpyrifos	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Chrysene	<0.019		0.019	ug/L		04/07/25 08:00	04/08/25 14:13	1
delta-BHC	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Di(2-ethylhexyl)adipate	<0.58		0.58	ug/L		04/07/25 08:00	04/08/25 14:13	1
Dibenz(a,h)anthracene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Diclorvos (DDVP)	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Dieldrin	<0.0097		0.0097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Diethylphthalate	<0.49		0.49	ug/L		04/07/25 08:00	04/08/25 14:13	1
Dimethylphthalate	<0.49		0.49	ug/L		04/07/25 08:00	04/08/25 14:13	1
Di-n-butyl phthalate	<0.97		0.97	ug/L		04/07/25 08:00	04/08/25 14:13	1
Di-n-octyl phthalate	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Endosulfan I (Alpha)	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Endosulfan II (Beta)	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Endosulfan sulfate	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Endrin	<0.0097		0.0097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Endrin aldehyde	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
EPTC	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Fluoranthene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Fluorene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
gamma-Chlordane	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Heptachlor	<0.0097		0.0097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Hexachlorobenzene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Hexachlorocyclopentadiene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Isophorone	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Lindane	<0.0097		0.0097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Malathion	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Methoxychlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Metolachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Molinate	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Naphthalene	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Parathion	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Pendimethalin (Penoxaline)	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Phenanthrene	<0.039		0.039	ug/L		04/07/25 08:00	04/08/25 14:13	1
Propachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Pyrene	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Simazine	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Terbacil	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Terbutylazine	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: MB 380-145789/21-A**  
**Matrix: Water**  
**Analysis Batch: 145979**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 145789**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Thiobencarb	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1
Total Permethrin (mixed isomers)	<0.19		0.19	ug/L		04/07/25 08:00	04/08/25 14:13	1
trans-Nonachlor	<0.049		0.049	ug/L		04/07/25 08:00	04/08/25 14:13	1
Trifluralin	<0.097		0.097	ug/L		04/07/25 08:00	04/08/25 14:13	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Ethyl 3-acetoxybutyrate	0.735	T J N	ug/L		3.25	27846-49-7	04/07/25 08:00	04/08/25 14:13	1
9-Octadecenamide, (Z)-	1.41	T J N	ug/L		8.07	301-02-0	04/07/25 08:00	04/08/25 14:13	1
13-Docosenamide, (Z)-	0.498	T J N	ug/L		10.67	112-84-5	04/07/25 08:00	04/08/25 14:13	1
Unknown	0.805	T J	ug/L		11.66	N/A	04/07/25 08:00	04/08/25 14:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	98		70 - 130	04/07/25 08:00	04/08/25 14:13	1
Perylene-d12	87		70 - 130	04/07/25 08:00	04/08/25 14:13	1
Triphenylphosphate	105		70 - 130	04/07/25 08:00	04/08/25 14:13	1

**Lab Sample ID: LCS 380-145789/23-A**  
**Matrix: Water**  
**Analysis Batch: 145979**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145789**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1-Methylnaphthalene	1.95	1.96		ug/L		101	70 - 130
2,4'-DDD	1.95	2.12		ug/L		109	70 - 130
2,4'-DDE	1.95	2.12		ug/L		109	70 - 130
2,4'-DDT	1.95	2.01		ug/L		103	70 - 130
2,4-Dinitrotoluene	1.95	2.04		ug/L		105	70 - 130
2,6-Dinitrotoluene	1.95	1.99		ug/L		102	70 - 130
2-Methylnaphthalene	1.95	1.99		ug/L		102	70 - 130
4,4'-DDD	1.95	2.06		ug/L		106	70 - 130
4,4'-DDE	1.95	2.11		ug/L		108	70 - 130
4,4'-DDT	1.95	1.97		ug/L		101	70 - 130
Acenaphthene	1.95	2.03		ug/L		104	70 - 130
Acenaphthylene	1.95	2.07		ug/L		106	70 - 130
Acetochlor	1.95	2.24		ug/L		115	70 - 130
Alachlor	1.95	2.28		ug/L		117	70 - 130
alpha-BHC	1.95	2.15		ug/L		110	70 - 130
alpha-Chlordane	1.95	2.18		ug/L		112	70 - 130
Anthracene	1.95	2.03		ug/L		104	70 - 130
Atrazine	1.95	2.35		ug/L		121	70 - 130
Benz(a)anthracene	1.95	2.01		ug/L		103	70 - 130
Benzo[a]pyrene	1.95	2.02		ug/L		104	70 - 130
Benzo[b]fluoranthene	1.95	2.25		ug/L		116	70 - 130
Benzo[g,h,i]perylene	1.95	2.06		ug/L		106	70 - 130
Benzo[k]fluoranthene	1.95	2.01		ug/L		103	70 - 130
beta-BHC	1.95	2.20		ug/L		113	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	2.07		ug/L		106	70 - 130
Bromacil	1.95	2.06		ug/L		106	70 - 130
Butachlor	1.95	2.27		ug/L		117	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
 SDG: Quarterly

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

**Lab Sample ID: LCS 380-145789/23-A**  
**Matrix: Water**  
**Analysis Batch: 145979**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145789**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Butylbenzylphthalate	1.95	2.23		ug/L		115	70 - 130
Chlorobenzilate	1.95	2.19		ug/L		113	70 - 130
Chloroneb	1.95	2.06		ug/L		106	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.25		ug/L		115	70 - 130
Chlorpyrifos	1.95	2.23		ug/L		115	70 - 130
Chrysene	1.95	2.06		ug/L		106	70 - 130
delta-BHC	1.95	2.14		ug/L		110	70 - 130
Di(2-ethylhexyl)adipate	1.95	2.21		ug/L		113	70 - 130
Dibenz(a,h)anthracene	1.95	2.17		ug/L		111	70 - 130
Diclorvos (DDVP)	1.95	2.09		ug/L		107	70 - 130
Dieldrin	1.95	2.05		ug/L		105	70 - 130
Diethylphthalate	1.95	2.25		ug/L		116	70 - 130
Dimethylphthalate	1.95	2.20		ug/L		113	70 - 130
Di-n-butyl phthalate	3.90	4.23		ug/L		109	70 - 130
Di-n-octyl phthalate	1.95	2.01		ug/L		103	70 - 130
Endosulfan I (Alpha)	1.95	2.10		ug/L		108	70 - 130
Endosulfan II (Beta)	1.95	2.15		ug/L		110	70 - 130
Endosulfan sulfate	1.95	2.16		ug/L		111	70 - 130
Endrin	1.95	2.09		ug/L		107	70 - 130
Endrin aldehyde	1.95	2.06		ug/L		106	60 - 130
EPTC	1.95	2.10		ug/L		108	70 - 130
Fluoranthene	1.95	2.22		ug/L		114	70 - 130
Fluorene	1.95	2.13		ug/L		109	70 - 130
gamma-Chlordane	1.95	2.12		ug/L		109	70 - 130
Heptachlor	1.95	2.10		ug/L		108	70 - 130
Heptachlor epoxide (isomer B)	1.95	2.10		ug/L		108	70 - 130
Hexachlorobenzene	1.95	2.01		ug/L		103	70 - 130
Hexachlorocyclopentadiene	1.95	1.95		ug/L		100	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	2.05		ug/L		105	70 - 130
Isophorone	1.95	2.01		ug/L		103	70 - 130
Lindane	1.95	2.12		ug/L		109	70 - 130
Malathion	1.95	2.28		ug/L		117	70 - 130
Methoxychlor	1.95	2.07		ug/L		106	70 - 130
Metolachlor	1.95	2.33		ug/L		119	70 - 130
Molinate	1.95	2.17		ug/L		111	70 - 130
Naphthalene	1.95	1.85		ug/L		95	70 - 130
Parathion	1.95	2.16		ug/L		111	70 - 130
Pendimethalin (Penoxaline)	1.95	2.02		ug/L		104	70 - 130
Phenanthrene	1.95	1.96		ug/L		100	70 - 130
Propachlor	1.95	2.27		ug/L		116	70 - 130
Pyrene	1.95	2.25		ug/L		115	70 - 130
Simazine	1.95	2.37		ug/L		122	70 - 130
Terbacil	1.95	2.21		ug/L		113	70 - 130
Terbutylazine	1.95	2.35		ug/L		121	70 - 130
Thiobencarb	1.95	2.31		ug/L		118	70 - 130
trans-Nonachlor	1.95	2.09		ug/L		107	70 - 130
Trifluralin	1.95	1.98		ug/L		102	70 - 130

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: LCS 380-145789/23-A**  
**Matrix: Water**  
**Analysis Batch: 145979**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145789**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	96		70 - 130
Triphenylphosphate	106		70 - 130

**Lab Sample ID: MRL 380-145789/22-A**  
**Matrix: Water**  
**Analysis Batch: 145979**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145789**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0975	0.111		ug/L		114	50 - 150
2,4'-DDD	0.0975	0.0907	J	ug/L		93	50 - 150
2,4'-DDE	0.0975	0.101		ug/L		103	50 - 150
2,4'-DDT	0.0975	0.100		ug/L		103	50 - 150
2,4-Dinitrotoluene	0.0975	0.0967	J	ug/L		99	50 - 150
2,6-Dinitrotoluene	0.0975	0.115		ug/L		118	50 - 150
2-Methylnaphthalene	0.0975	0.109		ug/L		112	50 - 150
4,4'-DDD	0.0975	0.112		ug/L		115	50 - 150
4,4'-DDE	0.0975	0.0927	J	ug/L		95	50 - 150
4,4'-DDT	0.0975	0.105		ug/L		107	50 - 150
Acenaphthene	0.0975	0.103		ug/L		106	50 - 150
Acenaphthylene	0.0975	0.0936	J	ug/L		96	50 - 150
Acetochlor	0.0975	0.110		ug/L		113	50 - 150
Alachlor	0.0488	0.0541		ug/L		111	50 - 150
alpha-BHC	0.0975	0.107		ug/L		110	50 - 150
alpha-Chlordane	0.0244	<0.028		ug/L		96	50 - 150
Anthracene	0.0195	0.0213		ug/L		109	50 - 150
Atrazine	0.0488	0.0562		ug/L		115	50 - 150
Benz(a)anthracene	0.0488	0.0549		ug/L		113	50 - 150
Benzo[a]pyrene	0.0195	0.0225		ug/L		115	50 - 150
Benzo[b]fluoranthene	0.0195	0.0206		ug/L		105	50 - 150
Benzo[g,h,i]perylene	0.0488	0.0499		ug/L		102	50 - 150
Benzo[k]fluoranthene	0.0195	0.0225		ug/L		116	50 - 150
beta-BHC	0.0975	0.116		ug/L		119	50 - 150
Bis(2-ethylhexyl) phthalate	0.585	0.609		ug/L		104	50 - 150
Bromacil	0.0975	0.115		ug/L		117	50 - 150
Butachlor	0.0488	0.0591		ug/L		121	50 - 150
Butylbenzylphthalate	0.488	0.549		ug/L		113	50 - 150
Chlorobenzilate	0.0975	0.105		ug/L		108	50 - 150
Chloroneb	0.0975	0.111		ug/L		114	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0975	0.0898	J	ug/L		92	50 - 150
Chlorpyrifos	0.0488	0.0516		ug/L		106	50 - 150
Chrysene	0.0195	0.0221		ug/L		113	50 - 150
delta-BHC	0.0975	0.104		ug/L		107	50 - 150
Di(2-ethylhexyl)adipate	0.585	0.636		ug/L		109	50 - 150
Dibenz(a,h)anthracene	0.0488	0.0499		ug/L		102	50 - 150
Diclorvos (DDVP)	0.0488	0.0587		ug/L		120	50 - 150
Dieldrin	0.00975	0.00889	J	ug/L		91	50 - 150
Diethylphthalate	0.488	0.557		ug/L		114	50 - 150

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: MRL 380-145789/22-A**  
**Matrix: Water**  
**Analysis Batch: 145979**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145789**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Dimethylphthalate	0.488	0.538		ug/L		110	50 - 150
Di-n-butyl phthalate	0.488	0.557	J	ug/L		114	49 - 243
Di-n-octyl phthalate	0.0975	0.0971	J	ug/L		100	50 - 150
Endosulfan I (Alpha)	0.0975	0.102		ug/L		104	50 - 150
Endosulfan II (Beta)	0.0975	0.0968	J	ug/L		99	50 - 150
Endosulfan sulfate	0.0975	0.0950	J	ug/L		97	50 - 150
Endrin	0.00975	0.0105		ug/L		107	50 - 150
Endrin aldehyde	0.0975	0.0867	J	ug/L		89	50 - 150
EPTC	0.0975	0.104		ug/L		106	50 - 150
Fluoranthene	0.0975	0.104		ug/L		107	50 - 150
Fluorene	0.0488	0.0547		ug/L		112	50 - 150
gamma-Chlordane	0.0244	0.0235	J	ug/L		96	50 - 150
Heptachlor	0.00975	0.00892	J	ug/L		92	50 - 150
Heptachlor epoxide (isomer B)	0.00975	0.0101		ug/L		103	50 - 150
Hexachlorobenzene	0.0488	0.0472	J	ug/L		97	50 - 150
Hexachlorocyclopentadiene	0.0488	0.0431	J	ug/L		88	50 - 150
Indeno[1,2,3-cd]pyrene	0.0488	0.0591		ug/L		121	50 - 150
Isophorone	0.0975	0.119		ug/L		122	50 - 150
Lindane	0.00975	0.0112		ug/L		115	50 - 150
Malathion	0.0975	0.101		ug/L		104	50 - 150
Methoxychlor	0.0488	0.0510		ug/L		105	50 - 150
Metolachlor	0.0488	0.0565		ug/L		116	50 - 150
Molinate	0.0975	0.105		ug/L		108	50 - 150
Naphthalene	0.0975	0.103		ug/L		106	50 - 150
Parathion	0.0975	0.0843	J	ug/L		87	50 - 150
Pendimethalin (Penoxaline)	0.0975	0.0859	J	ug/L		88	50 - 150
Phenanthrene	0.0390	0.0464		ug/L		119	50 - 150
Propachlor	0.0488	0.0540		ug/L		111	50 - 150
Pyrene	0.0488	0.0553		ug/L		113	50 - 150
Simazine	0.0488	0.0539		ug/L		111	50 - 150
Terbacil	0.0975	0.115		ug/L		118	50 - 150
Terbutylazine	0.0975	0.114		ug/L		117	50 - 150
Thiobencarb	0.0975	0.105		ug/L		108	50 - 150
trans-Nonachlor	0.0244	<0.025		ug/L		100	50 - 150
Trifluralin	0.0975	0.0954	J	ug/L		98	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Perylene-d12	88		70 - 130
Triphenylphosphate	103		70 - 130

**Lab Sample ID: 380-143838-1 MS**  
**Matrix: Drinking Water**  
**Analysis Batch: 145979**

**Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)**  
**Prep Type: Total/NA**  
**Prep Batch: 145789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.97	2.02		ug/L		102	70 - 130
2,4'-DDD	<0.097		1.97	2.20		ug/L		112	70 - 130

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-1 MS**

**Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)**

**Matrix: Drinking Water**

**Prep Type: Total/NA**

**Analysis Batch: 145979**

**Prep Batch: 145789**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
2,4'-DDE	<0.097		1.97	2.18		ug/L		111	70 - 130
2,4'-DDT	<0.097		1.97	2.05		ug/L		104	70 - 130
2,4-Dinitrotoluene	<0.097		1.97	2.06		ug/L		105	70 - 130
2,6-Dinitrotoluene	<0.097		1.97	2.06		ug/L		105	70 - 130
2-Methylnaphthalene	<0.097		1.97	2.04		ug/L		103	70 - 130
4,4'-DDD	<0.097		1.97	2.17		ug/L		110	70 - 130
4,4'-DDE	<0.097		1.97	2.17		ug/L		111	70 - 130
4,4'-DDT	<0.097		1.97	2.06		ug/L		105	70 - 130
Acenaphthene	<0.097		1.97	2.04		ug/L		104	70 - 130
Acenaphthylene	<0.097		1.97	2.06		ug/L		104	70 - 130
Acetochlor	<0.097		1.97	2.27		ug/L		116	70 - 130
Alachlor	<0.049		1.97	2.33		ug/L		118	70 - 130
alpha-BHC	<0.097		1.97	2.13		ug/L		108	70 - 130
alpha-Chlordane	<0.049		1.97	2.27		ug/L		115	70 - 130
Anthracene	<0.019		1.97	1.49		ug/L		76	70 - 130
Atrazine	<0.049		1.97	2.33		ug/L		118	70 - 130
Benz(a)anthracene	<0.049		1.97	2.01		ug/L		102	70 - 130
Benzo[a]pyrene	<0.019		1.97	1.87		ug/L		95	70 - 130
Benzo[b]fluoranthene	<0.019		1.97	2.43		ug/L		124	70 - 130
Benzo[g,h,i]perylene	<0.049		1.97	2.09		ug/L		106	70 - 130
Benzo[k]fluoranthene	<0.019		1.97	2.01		ug/L		102	70 - 130
beta-BHC	<0.097		1.97	2.22		ug/L		113	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.97	2.09		ug/L		106	70 - 130
Bromacil	<0.097		1.97	2.23		ug/L		113	70 - 130
Butachlor	<0.049		1.97	2.36		ug/L		120	70 - 130
Butylbenzylphthalate	<0.49		1.97	2.29		ug/L		116	70 - 130
Chlorobenzilate	<0.097		1.97	2.28		ug/L		116	70 - 130
Chloroneb	<0.097		1.97	2.05		ug/L		104	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.97	2.28		ug/L		116	70 - 130
Chlorpyrifos	<0.049		1.97	2.26		ug/L		115	70 - 130
Chrysene	<0.019		1.97	2.10		ug/L		107	70 - 130
delta-BHC	<0.097		1.97	2.15		ug/L		109	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.97	2.26		ug/L		111	70 - 130
Dibenz(a,h)anthracene	<0.049		1.97	2.21		ug/L		113	70 - 130
Diclorvos (DDVP)	<0.049		1.97	2.07		ug/L		105	70 - 130
Dieldrin	<0.0097		1.97	2.16		ug/L		110	70 - 130
Diethylphthalate	<0.49		1.97	2.22		ug/L		113	70 - 130
Dimethylphthalate	<0.49		1.97	2.21		ug/L		112	70 - 130
Di-n-butyl phthalate	<0.97		3.94	4.23		ug/L		108	70 - 130
Di-n-octyl phthalate	<0.097		1.97	2.08		ug/L		106	70 - 130
Endosulfan I (Alpha)	<0.097		1.97	2.16		ug/L		110	70 - 130
Endosulfan II (Beta)	<0.097		1.97	2.23		ug/L		114	70 - 130
Endosulfan sulfate	<0.097		1.97	2.27		ug/L		115	70 - 130
Endrin	<0.0097		1.97	2.21		ug/L		112	70 - 130
Endrin aldehyde	<0.097		1.97	1.98		ug/L		100	60 - 130
EPTC	<0.097		1.97	2.14		ug/L		109	70 - 130
Fluoranthene	<0.097		1.97	2.26		ug/L		115	70 - 130
Fluorene	<0.049		1.97	2.13		ug/L		108	70 - 130
gamma-Chlordane	<0.049		1.97	2.21		ug/L		112	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-1 MS**

**Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)**

**Matrix: Drinking Water**

**Prep Type: Total/NA**

**Analysis Batch: 145979**

**Prep Batch: 145789**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Heptachlor	<0.0097		1.97	2.12		ug/L		108	70 - 130	
Heptachlor epoxide (isomer B)	<0.0097		1.97	2.22		ug/L		113	70 - 130	
Hexachlorobenzene	<0.049		1.97	2.04		ug/L		104	70 - 130	
Hexachlorocyclopentadiene	<0.049		1.97	1.88		ug/L		96	70 - 130	
Indeno[1,2,3-cd]pyrene	<0.049		1.97	2.13		ug/L		108	70 - 130	
Isophorone	<0.097		1.97	2.09		ug/L		106	70 - 130	
Lindane	<0.0097		1.97	2.10		ug/L		107	70 - 130	
Malathion	<0.097		1.97	2.36		ug/L		120	70 - 130	
Methoxychlor	<0.049		1.97	2.14		ug/L		109	70 - 130	
Metolachlor	<0.049		1.97	2.41		ug/L		123	70 - 130	
Molinate	<0.097		1.97	2.15		ug/L		109	70 - 130	
Naphthalene	<0.097		1.97	1.91		ug/L		97	70 - 130	
Parathion	<0.097		1.97	2.21		ug/L		112	70 - 130	
Pendimethalin (Penoxaline)	<0.097		1.97	2.09		ug/L		106	70 - 130	
Phenanthrene	<0.039		1.97	2.00		ug/L		102	70 - 130	
Propachlor	<0.049		1.97	2.27		ug/L		115	70 - 130	
Pyrene	<0.049		1.97	2.29		ug/L		117	70 - 130	
Simazine	<0.049		1.97	2.33		ug/L		119	70 - 130	
Terbacil	<0.097		1.97	2.23		ug/L		113	70 - 130	
Terbutylazine	<0.097		1.97	2.33		ug/L		119	70 - 130	
Thiobencarb	<0.097		1.97	2.31		ug/L		117	70 - 130	
trans-Nonachlor	<0.049		1.97	2.18		ug/L		111	70 - 130	
Trifluralin	<0.097		1.97	2.04		ug/L		103	70 - 130	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	93		70 - 130
Triphenylphosphate	107		70 - 130

**Lab Sample ID: 380-143838-1 MSD**

**Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)**

**Matrix: Drinking Water**

**Prep Type: Total/NA**

**Analysis Batch: 145979**

**Prep Batch: 145789**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	
	Result	Qualifier	Added	Result	Qualifier						RPD	Limit
1-Methylnaphthalene	<0.097		1.95	2.00		ug/L		102	70 - 130	1	20	
2,4'-DDD	<0.097		1.95	2.17		ug/L		111	70 - 130	2	20	
2,4'-DDE	<0.097		1.95	2.17		ug/L		111	70 - 130	1	20	
2,4'-DDT	<0.097		1.95	2.05		ug/L		105	70 - 130	0	20	
2,4-Dinitrotoluene	<0.097		1.95	2.06		ug/L		106	70 - 130	0	20	
2,6-Dinitrotoluene	<0.097		1.95	2.04		ug/L		105	70 - 130	1	20	
2-Methylnaphthalene	<0.097		1.95	2.02		ug/L		103	70 - 130	1	20	
4,4'-DDD	<0.097		1.95	2.14		ug/L		110	70 - 130	1	20	
4,4'-DDE	<0.097		1.95	2.18		ug/L		112	70 - 130	0	20	
4,4'-DDT	<0.097		1.95	2.03		ug/L		104	70 - 130	1	20	
Acenaphthene	<0.097		1.95	2.04		ug/L		104	70 - 130	0	20	
Acenaphthylene	<0.097		1.95	2.06		ug/L		105	70 - 130	0	20	
Acetochlor	<0.097		1.95	2.35		ug/L		120	70 - 130	3	20	
Alachlor	<0.049		1.95	2.33		ug/L		119	70 - 130	0	20	

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# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-1 MSD**

**Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)**

**Matrix: Drinking Water**

**Prep Type: Total/NA**

**Analysis Batch: 145979**

**Prep Batch: 145789**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
alpha-BHC	<0.097		1.95	2.14		ug/L		110	70 - 130	1	20
alpha-Chlordane	<0.049		1.95	2.26		ug/L		116	70 - 130	0	20
Anthracene	<0.019		1.95	1.53		ug/L		78	70 - 130	3	20
Atrazine	<0.049		1.95	2.32		ug/L		119	70 - 130	0	20
Benz(a)anthracene	<0.049		1.95	1.99		ug/L		102	70 - 130	1	20
Benzo[a]pyrene	<0.019		1.95	1.90		ug/L		97	70 - 130	2	20
Benzo[b]fluoranthene	<0.019		1.95	2.40		ug/L		123	70 - 130	1	20
Benzo[g,h,i]perylene	<0.049		1.95	2.10		ug/L		107	70 - 130	0	20
Benzo[k]fluoranthene	<0.019		1.95	2.02		ug/L		103	70 - 130	0	20
beta-BHC	<0.097		1.95	2.25		ug/L		115	70 - 130	1	20
Bis(2-ethylhexyl) phthalate	<0.58		1.95	2.12		ug/L		109	70 - 130	1	20
Bromacil	<0.097		1.95	2.20		ug/L		112	70 - 130	1	20
Butachlor	<0.049		1.95	2.36		ug/L		121	70 - 130	0	20
Butylbenzylphthalate	<0.49		1.95	2.29		ug/L		117	70 - 130	0	20
Chlorobenzilate	<0.097		1.95	2.25		ug/L		115	70 - 130	1	20
Chloroneb	<0.097		1.95	2.07		ug/L		106	70 - 130	1	20
Chlorothalonil (Draconil, Bravo)	<0.097		1.95	2.23		ug/L		114	70 - 130	2	20
Chlorpyrifos	<0.049		1.95	2.27		ug/L		116	70 - 130	0	20
Chrysene	<0.019		1.95	2.07		ug/L		106	70 - 130	2	20
delta-BHC	<0.097		1.95	2.15		ug/L		110	70 - 130	0	20
Di(2-ethylhexyl)adipate	<0.58		1.95	2.27		ug/L		113	70 - 130	0	20
Dibenz(a,h)anthracene	<0.049		1.95	2.22		ug/L		114	70 - 130	0	20
Diclorvos (DDVP)	<0.049		1.95	2.06		ug/L		106	70 - 130	1	20
Dieldrin	<0.0097		1.95	2.17		ug/L		111	70 - 130	0	20
Diethylphthalate	<0.49		1.95	2.25		ug/L		115	70 - 130	1	20
Dimethylphthalate	<0.49		1.95	2.17		ug/L		111	70 - 130	2	20
Di-n-butyl phthalate	<0.97		3.91	4.23		ug/L		108	70 - 130	0	20
Di-n-octyl phthalate	<0.097		1.95	2.09		ug/L		107	70 - 130	0	20
Endosulfan I (Alpha)	<0.097		1.95	2.16		ug/L		111	70 - 130	0	20
Endosulfan II (Beta)	<0.097		1.95	2.25		ug/L		115	70 - 130	1	20
Endosulfan sulfate	<0.097		1.95	2.22		ug/L		114	70 - 130	2	20
Endrin	<0.0097		1.95	2.19		ug/L		112	70 - 130	1	20
Endrin aldehyde	<0.097		1.95	1.92		ug/L		98	60 - 130	3	20
EPTC	<0.097		1.95	2.15		ug/L		110	70 - 130	1	20
Fluoranthene	<0.097		1.95	2.22		ug/L		114	70 - 130	2	20
Fluorene	<0.049		1.95	2.16		ug/L		111	70 - 130	2	20
gamma-Chlordane	<0.049		1.95	2.20		ug/L		113	70 - 130	0	20
Heptachlor	<0.0097		1.95	2.15		ug/L		110	70 - 130	1	20
Heptachlor epoxide (isomer B)	<0.0097		1.95	2.20		ug/L		113	70 - 130	1	20
Hexachlorobenzene	<0.049		1.95	2.07		ug/L		106	70 - 130	1	20
Hexachlorocyclopentadiene	<0.049		1.95	1.91		ug/L		98	70 - 130	2	20
Indeno[1,2,3-cd]pyrene	<0.049		1.95	2.14		ug/L		110	70 - 130	1	20
Isophorone	<0.097		1.95	2.06		ug/L		105	70 - 130	1	20
Lindane	<0.0097		1.95	2.11		ug/L		108	70 - 130	1	20
Malathion	<0.097		1.95	2.35		ug/L		120	70 - 130	0	20
Methoxychlor	<0.049		1.95	2.13		ug/L		109	70 - 130	0	20
Metolachlor	<0.049		1.95	2.39		ug/L		122	70 - 130	1	20
Molinate	<0.097		1.95	2.14		ug/L		109	70 - 130	1	20
Naphthalene	<0.097		1.95	1.90		ug/L		97	70 - 130	1	20

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

Lab Sample ID: 380-143838-1 MSD

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)

Matrix: Drinking Water

Prep Type: Total/NA

Analysis Batch: 145979

Prep Batch: 145789

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Parathion	<0.097		1.95	2.23		ug/L		114	70 - 130	1	20
Pendimethalin (Penoxaline)	<0.097		1.95	2.11		ug/L		108	70 - 130	1	20
Phenanthrene	<0.039		1.95	1.97		ug/L		101	70 - 130	2	20
Propachlor	<0.049		1.95	2.28		ug/L		117	70 - 130	1	20
Pyrene	<0.049		1.95	2.26		ug/L		116	70 - 130	2	20
Simazine	<0.049		1.95	2.36		ug/L		121	70 - 130	1	20
Terbacil	<0.097		1.95	2.15		ug/L		110	70 - 130	3	20
Terbutylazine	<0.097		1.95	2.35		ug/L		120	70 - 130	1	20
Thiobencarb	<0.097		1.95	2.28		ug/L		117	70 - 130	1	20
trans-Nonachlor	<0.049		1.95	2.18		ug/L		112	70 - 130	0	20
Trifluralin	<0.097		1.95	2.07		ug/L		106	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Nitro-m-xylene	98		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	107		70 - 130

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

Lab Sample ID: MB 570-553677/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 558159

Prep Batch: 553677

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A	04/04/25 09:08	04/15/25 11:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	85		33 - 139	04/04/25 09:08	04/15/25 11:33	1
2-Fluorobiphenyl (Surr)	113		33 - 126	04/04/25 09:08	04/15/25 11:33	1
2-Fluorophenol (Surr)	68		12 - 120	04/04/25 09:08	04/15/25 11:33	1
Nitrobenzene-d5 (Surr)	120		36 - 120	04/04/25 09:08	04/15/25 11:33	1
Phenol-d6 (Surr)	39		10 - 120	04/04/25 09:08	04/15/25 11:33	1
p-Terphenyl-d14 (Surr)	115		47 - 131	04/04/25 09:08	04/15/25 11:33	1

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

Lab Sample ID: MB 570-553677/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 556409

Prep Batch: 553677

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
2,4,5-Trichlorophenol	<5.0		5.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
2,4,6-Trichlorophenol	<1.0		1.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
2,4-Dichlorophenol	<1.0		1.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
2,4-Dinitrophenol	<5.0		5.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
2,6-Dichlorophenol	<5.0		5.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
2-Chloronaphthalene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: MB 570-553677/1-A**  
**Matrix: Water**  
**Analysis Batch: 556409**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 553677**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
2-Methylnaphthalene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
2-Methylphenol	<1.0		1.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
2-Nitroaniline	<5.0		5.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
2-Nitrophenol	<5.0		5.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
3/4-Methylphenol	<2.0		2.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
3-Nitroaniline	<5.0		5.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
4,6-Dinitro-2-methylphenol	<5.0		5.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
4-Bromophenyl phenyl ether	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
4-Chloro-3-methylphenol	<1.0		1.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
4-Chloroaniline	<5.0		5.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
4-Chlorophenyl phenyl ether	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
4-Nitroaniline	<5.0		5.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
4-Nitrophenol	<5.0		5.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
Acenaphthene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Acenaphthylene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Aniline	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Anthracene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Benzidine	<5.0		5.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
Benzo[a]anthracene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Benzo[a]pyrene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Benzoic acid	<10		10	ug/L		04/04/25 09:08	04/10/25 16:13	1
Benzyl alcohol	<1.0		1.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
Bis(2-chloroethoxy)methane	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Bis(2-chloroethyl)ether	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
bis (2-Chloroisopropyl) ether	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Chrysene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Dibenzofuran	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Fluoranthene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Fluorene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Hexachloroethane	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Naphthalene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Nitrobenzene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
N-Nitrosodi-n-propylamine	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
N-Nitrosodiphenylamine	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Pentachlorophenol	<1.0		1.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
Phenanthrene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1
Phenol	<1.0		1.0	ug/L		04/04/25 09:08	04/10/25 16:13	1
Pyrene	<0.20		0.20	ug/L		04/04/25 09:08	04/10/25 16:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	108		28 - 127	04/04/25 09:08	04/10/25 16:13	1
2-Fluorobiphenyl (Surr)	94		31 - 120	04/04/25 09:08	04/10/25 16:13	1

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: MB 570-553677/1-A**  
**Matrix: Water**  
**Analysis Batch: 556409**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 553677**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol (Surr)	65		17 - 120	04/04/25 09:08	04/10/25 16:13	1
Nitrobenzene-d5 (Surr)	100		27 - 120	04/04/25 09:08	04/10/25 16:13	1
Phenol-d6 (Surr)	43		10 - 120	04/04/25 09:08	04/10/25 16:13	1
p-Terphenyl-d14 (Surr)	105		45 - 120	04/04/25 09:08	04/10/25 16:13	1

**Lab Sample ID: LCS 570-553677/2-A**  
**Matrix: Water**  
**Analysis Batch: 556409**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 553677**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec
2,4,5-Trichlorophenol	20.0	19.5		ug/L		98	57 - 120	
2,4,6-Trichlorophenol	20.0	19.6		ug/L		98	52 - 129	
2,4-Dichlorophenol	20.0	17.5		ug/L		88	53 - 122	
2,4-Dinitrophenol	20.0	21.6		ug/L		108	1 - 173	
2,6-Dichlorophenol	20.0	17.3		ug/L		86	50 - 120	
2-Chloronaphthalene	20.0	19.1		ug/L		96	65 - 120	
2-Chlorophenol	20.0	20.3		ug/L		102	36 - 120	
2-Methylnaphthalene	20.0	18.5		ug/L		93	43 - 120	
2-Methylphenol	20.0	19.6		ug/L		98	46 - 120	
2-Nitroaniline	20.0	19.3		ug/L		96	51 - 125	
2-Nitrophenol	20.0	15.6		ug/L		78	45 - 167	
3/4-Methylphenol	40.0	37.4		ug/L		93	29 - 120	
3-Nitroaniline	20.0	21.0		ug/L		105	62 - 129	
4,6-Dinitro-2-methylphenol	20.0	22.3		ug/L		111	53 - 130	
4-Bromophenyl phenyl ether	20.0	20.0		ug/L		100	65 - 120	
4-Chloro-3-methylphenol	20.0	18.7		ug/L		93	41 - 128	
4-Chloroaniline	20.0	13.7		ug/L		68	51 - 120	
4-Chlorophenyl phenyl ether	20.0	20.2		ug/L		101	38 - 145	
4-Nitroaniline	20.0	21.3		ug/L		106	64 - 129	
4-Nitrophenol	20.0	9.92		ug/L		50	13 - 129	
Acenaphthene	20.0	19.2		ug/L		96	60 - 132	
Acenaphthylene	20.0	18.6		ug/L		93	54 - 126	
Aniline	20.0	11.7		ug/L		59	52 - 121	
Anthracene	20.0	20.7		ug/L		104	43 - 120	
Benzidine	20.0	<0.94	*-	ug/L		0.7	20 - 164	
Benzo[a]anthracene	20.0	20.0		ug/L		100	42 - 133	
Benzo[a]pyrene	20.0	20.6		ug/L		103	32 - 148	
Benzo[b]fluoranthene	20.0	21.4		ug/L		107	42 - 140	
Benzo[g,h,i]perylene	20.0	21.7		ug/L		108	1 - 195	
Benzo[k]fluoranthene	20.0	20.4		ug/L		102	25 - 146	
Benzoic acid	20.0	9.84	J	ug/L		49	20 - 120	
Benzyl alcohol	20.0	20.2		ug/L		101	44 - 122	
Bis(2-chloroethoxy)methane	20.0	17.2		ug/L		86	49 - 165	
Bis(2-chloroethyl)ether	20.0	19.9		ug/L		99	43 - 126	
bis (2-Chloroisopropyl) ether	20.0	19.8		ug/L		99	63 - 139	
Chrysene	20.0	19.3		ug/L		97	44 - 140	
Dibenz(a,h)anthracene	20.0	21.8		ug/L		109	1 - 200	

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: LCS 570-553677/2-A**  
**Matrix: Water**  
**Analysis Batch: 556409**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 553677**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenzofuran	20.0	20.0		ug/L		100	48 - 120
Fluoranthene	20.0	22.5		ug/L		113	43 - 121
Fluorene	20.0	20.1		ug/L		100	70 - 120
Hexachloroethane	20.0	15.7		ug/L		79	55 - 120
Indeno[1,2,3-cd]pyrene	20.0	22.3		ug/L		112	1 - 151
Naphthalene	20.0	15.6		ug/L		78	36 - 120
Nitrobenzene	20.0	15.7		ug/L		79	54 - 158
N-Nitrosodi-n-propylamine	20.0	20.5		ug/L		102	14 - 198
N-Nitrosodiphenylamine	20.0	23.6		ug/L		118	65 - 133
Pentachlorophenol	20.0	22.3		ug/L		112	38 - 152
Phenanthrene	20.0	20.4		ug/L		102	65 - 120
Phenol	20.0	10.3		ug/L		51	17 - 120
Pyrene	20.0	19.7		ug/L		98	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	103		28 - 127
2-Fluorobiphenyl (Surr)	98		31 - 120
2-Fluorophenol (Surr)	70		17 - 120
Nitrobenzene-d5 (Surr)	81		27 - 120
Phenol-d6 (Surr)	48		10 - 120
p-Terphenyl-d14 (Surr)	104		45 - 120

**Lab Sample ID: LCSD 570-553677/3-A**  
**Matrix: Water**  
**Analysis Batch: 556409**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 553677**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	20.0	17.0		ug/L		85	47 - 120	4	20
2,4,5-Trichlorophenol	20.0	21.2		ug/L		106	57 - 120	8	20
2,4,6-Trichlorophenol	20.0	20.9		ug/L		105	52 - 129	7	35
2,4-Dichlorophenol	20.0	18.3		ug/L		91	53 - 122	4	30
2,4-Dinitrophenol	20.0	23.5		ug/L		118	1 - 173	9	79
2,6-Dichlorophenol	20.0	18.5		ug/L		93	50 - 120	7	20
2-Chloronaphthalene	20.0	20.5		ug/L		102	65 - 120	7	15
2-Chlorophenol	20.0	21.8		ug/L		109	36 - 120	7	37
2-Methylnaphthalene	20.0	19.7		ug/L		99	43 - 120	6	20
2-Methylphenol	20.0	20.6		ug/L		103	46 - 120	5	20
2-Nitroaniline	20.0	20.9		ug/L		105	51 - 125	8	20
2-Nitrophenol	20.0	17.5		ug/L		88	45 - 167	12	33
3/4-Methylphenol	40.0	38.5		ug/L		96	29 - 120	3	20
3-Nitroaniline	20.0	23.3		ug/L		116	62 - 129	10	20
4,6-Dinitro-2-methylphenol	20.0	23.7		ug/L		119	53 - 130	6	122
4-Bromophenyl phenyl ether	20.0	20.7		ug/L		104	65 - 120	3	26
4-Chloro-3-methylphenol	20.0	19.0		ug/L		95	41 - 128	2	44
4-Chloroaniline	20.0	15.7		ug/L		79	51 - 120	14	20
4-Chlorophenyl phenyl ether	20.0	21.7		ug/L		109	38 - 145	7	36
4-Nitroaniline	20.0	23.7		ug/L		118	64 - 129	11	20
4-Nitrophenol	20.0	11.3		ug/L		56	13 - 129	13	79

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

Lab Sample ID: LCSD 570-553677/3-A

Matrix: Water

Analysis Batch: 556409

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 553677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	20.0	20.5		ug/L		102	60 - 132	6	29
Acenaphthylene	20.0	19.7		ug/L		99	54 - 126	6	45
Aniline	20.0	14.4		ug/L		72	52 - 121	20	21
Anthracene	20.0	22.3		ug/L		112	43 - 120	7	40
Benzidine	20.0	<0.94	*-	ug/L		0.8	20 - 164	16	30
Benzo[a]anthracene	20.0	21.4		ug/L		107	42 - 133	7	32
Benzo[a]pyrene	20.0	21.9		ug/L		109	32 - 148	6	43
Benzo[b]fluoranthene	20.0	22.9		ug/L		114	42 - 140	7	43
Benzo[g,h,i]perylene	20.0	22.4		ug/L		112	1 - 195	3	61
Benzo[k]fluoranthene	20.0	21.6		ug/L		108	25 - 146	6	38
Benzoic acid	20.0	8.85	J	ug/L		44	20 - 120	11	30
Benzyl alcohol	20.0	21.4		ug/L		107	44 - 122	6	20
Bis(2-chloroethoxy)methane	20.0	18.4		ug/L		92	49 - 165	7	32
Bis(2-chloroethyl)ether	20.0	21.7		ug/L		109	43 - 126	9	65
bis (2-Chloroisopropyl) ether	20.0	20.7		ug/L		104	63 - 139	5	46
Chrysene	20.0	20.7		ug/L		103	44 - 140	7	53
Dibenz(a,h)anthracene	20.0	23.8		ug/L		119	1 - 200	9	75
Dibenzofuran	20.0	21.4		ug/L		107	48 - 120	7	20
Fluoranthene	20.0	24.4	*+	ug/L		122	43 - 121	8	40
Fluorene	20.0	21.5		ug/L		108	70 - 120	7	23
Hexachloroethane	20.0	17.2		ug/L		86	55 - 120	9	32
Indeno[1,2,3-cd]pyrene	20.0	23.9		ug/L		119	1 - 151	7	60
Naphthalene	20.0	16.9		ug/L		85	36 - 120	8	39
Nitrobenzene	20.0	17.2		ug/L		86	54 - 158	9	37
N-Nitrosodi-n-propylamine	20.0	20.9		ug/L		104	14 - 198	2	52
N-Nitrosodiphenylamine	20.0	24.8		ug/L		124	65 - 133	5	20
Pentachlorophenol	20.0	23.7		ug/L		119	38 - 152	6	52
Phenanthrene	20.0	22.2		ug/L		111	65 - 120	8	24
Phenol	20.0	11.2		ug/L		56	17 - 120	8	39
Pyrene	20.0	20.1		ug/L		101	70 - 120	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	104		28 - 127
2-Fluorobiphenyl (Surr)	104		31 - 120
2-Fluorophenol (Surr)	75		17 - 120
Nitrobenzene-d5 (Surr)	89		27 - 120
Phenol-d6 (Surr)	53		10 - 120
p-Terphenyl-d14 (Surr)	109		45 - 120

Lab Sample ID: 380-143376-A-3-A MS

Matrix: Water

Analysis Batch: 557358

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 553677

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.2	15.1		ug/L		79	36 - 120
2,4,5-Trichlorophenol	<4.8		19.2	20.1		ug/L		105	21 - 145
2,4,6-Trichlorophenol	<0.95		19.2	19.5		ug/L		102	37 - 144
2,4-Dichlorophenol	<0.95		19.2	17.5		ug/L		91	39 - 135

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143376-A-3-A MS**  
**Matrix: Water**  
**Analysis Batch: 557358**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 553677**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
2,4-Dinitrophenol	<4.8		19.2	18.6		ug/L		97	1 - 191
2,6-Dichlorophenol	<4.8		19.2	17.1		ug/L		89	24 - 134
2-Chloronaphthalene	<0.19		19.2	19.1		ug/L		99	60 - 120
2-Chlorophenol	<0.19		19.2	18.6		ug/L		97	23 - 143
2-Methylnaphthalene	<0.19		19.2	16.8		ug/L		87	32 - 124
2-Methylphenol	<0.95		19.2	16.9		ug/L		88	10 - 135
2-Nitroaniline	<4.8		19.2	17.7		ug/L		92	10 - 147
2-Nitrophenol	<4.8		19.2	15.1		ug/L		78	29 - 182
3/4-Methylphenol	<1.9		38.4	31.4		ug/L		82	10 - 118
3-Nitroaniline	<4.8		19.2	19.1		ug/L		99	10 - 153
4,6-Dinitro-2-methylphenol	<4.8		19.2	21.6		ug/L		113	1 - 181
4-Bromophenyl phenyl ether	<0.19		19.2	19.3		ug/L		101	53 - 127
4-Chloro-3-methylphenol	<0.95		19.2	16.2		ug/L		84	22 - 147
4-Chloroaniline	<4.8		19.2	14.3		ug/L		75	10 - 131
4-Chlorophenyl phenyl ether	<0.19		19.2	19.5		ug/L		101	25 - 158
4-Nitroaniline	<4.8		19.2	19.8		ug/L		103	10 - 180
4-Nitrophenol	<4.8		19.2	9.37		ug/L		49	1 - 132
Acenaphthene	<0.19		19.2	18.7		ug/L		98	47 - 145
Acenaphthylene	<0.19		19.2	17.5		ug/L		91	33 - 145
Aniline	<0.19		19.2	11.7		ug/L		61	10 - 113
Anthracene	<0.19		19.2	20.9		ug/L		109	27 - 133
Benzidine	<4.8	*- F1 F2	19.2	<4.8	F1	ug/L		6	10 - 57
Benzo[a]anthracene	<0.19		19.2	20.3		ug/L		106	33 - 143
Benzo[a]pyrene	<0.19		19.2	20.9		ug/L		109	17 - 163
Benzo[b]fluoranthene	<0.19		19.2	21.1		ug/L		110	24 - 159
Benzo[g,h,i]perylene	<0.19		19.2	19.4		ug/L		101	1 - 219
Benzo[k]fluoranthene	<0.19		19.2	20.4		ug/L		106	11 - 162
Benzoic acid	<9.5	F2	19.2	<9.6		ug/L		36	10 - 97
Benzyl alcohol	<0.95		19.2	16.6		ug/L		86	10 - 122
Bis(2-chloroethoxy)methane	<0.19		19.2	16.0		ug/L		84	33 - 184
Bis(2-chloroethyl)ether	<0.19		19.2	17.9		ug/L		93	12 - 158
bis (2-Chloroisopropyl) ether	<0.19		19.2	17.2		ug/L		90	36 - 166
Chrysene	<0.19		19.2	20.1		ug/L		105	17 - 168
Dibenz(a,h)anthracene	<0.19		19.2	19.1		ug/L		99	1 - 227
Dibenzofuran	<0.19		19.2	19.5		ug/L		102	42 - 111
Fluoranthene	<0.19	*+	19.2	22.8		ug/L		119	26 - 137
Fluorene	<0.19		19.2	18.7		ug/L		97	59 - 121
Hexachloroethane	<0.19		19.2	14.7		ug/L		77	40 - 120
Indeno[1,2,3-cd]pyrene	<0.19		19.2	20.1		ug/L		105	1 - 171
Naphthalene	<0.19		19.2	14.8		ug/L		77	21 - 133
Nitrobenzene	<0.19		19.2	15.1		ug/L		79	35 - 180
N-Nitrosodi-n-propylamine	<0.19		19.2	17.0		ug/L		89	1 - 230
N-Nitrosodiphenylamine	<0.19		19.2	23.8		ug/L		124	10 - 179
Pentachlorophenol	<0.95		19.2	22.3		ug/L		116	14 - 176
Phenanthrene	<0.19		19.2	20.4		ug/L		106	54 - 120
Phenol	<0.95		19.2	8.97		ug/L		47	5 - 120
Pyrene	<0.19		19.2	21.1		ug/L		110	52 - 120

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143376-A-3-A MS**  
**Matrix: Water**  
**Analysis Batch: 557358**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 553677**

Surrogate	%Recovery	MS MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	112		28 - 127
2-Fluorobiphenyl (Surr)	96		31 - 120
2-Fluorophenol (Surr)	64		17 - 120
Nitrobenzene-d5 (Surr)	81		27 - 120
Phenol d6 (Surr)	43		10 - 120
p-Terphenyl-d14 (Surr)	105		45 - 120

**Lab Sample ID: 380-143376-A-3-B MSD**  
**Matrix: Water**  
**Analysis Batch: 557358**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 553677**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	<0.19		19.1	15.5		ug/L		81	36 - 120	2	30
2,4,5-Trichlorophenol	<4.8		19.1	19.7		ug/L		103	21 - 145	2	30
2,4,6-Trichlorophenol	<0.95		19.1	19.7		ug/L		103	37 - 144	1	58
2,4-Dichlorophenol	<0.95		19.1	17.8		ug/L		93	39 - 135	2	50
2,4-Dinitrophenol	<4.8		19.1	17.7		ug/L		93	1 - 191	5	132
2,6-Dichlorophenol	<4.8		19.1	17.5		ug/L		92	24 - 134	3	30
2-Chloronaphthalene	<0.19		19.1	20.0		ug/L		104	60 - 120	4	24
2-Chlorophenol	<0.19		19.1	19.6		ug/L		102	23 - 143	5	61
2-Methylnaphthalene	<0.19		19.1	17.3		ug/L		91	32 - 124	3	30
2-Methylphenol	<0.95		19.1	17.7		ug/L		92	10 - 135	4	30
2-Nitroaniline	<4.8		19.1	17.4		ug/L		91	10 - 147	2	30
2-Nitrophenol	<4.8		19.1	15.4		ug/L		81	29 - 182	3	55
3/4-Methylphenol	<1.9		38.2	32.4		ug/L		85	10 - 118	3	30
3-Nitroaniline	<4.8		19.1	18.4		ug/L		96	10 - 153	4	30
4,6-Dinitro-2-methylphenol	<4.8		19.1	20.7		ug/L		108	1 - 181	4	203
4-Bromophenyl phenyl ether	<0.19		19.1	20.0		ug/L		104	53 - 127	3	43
4-Chloro-3-methylphenol	<0.95		19.1	16.2		ug/L		85	22 - 147	0	73
4-Chloroaniline	<4.8		19.1	13.8		ug/L		72	10 - 131	4	30
4-Chlorophenyl phenyl ether	<0.19		19.1	20.0		ug/L		104	25 - 158	2	61
4-Nitroaniline	<4.8		19.1	19.0		ug/L		99	10 - 180	4	30
4-Nitrophenol	<4.8		19.1	8.96		ug/L		47	1 - 132	4	131
Acenaphthene	<0.19		19.1	19.2		ug/L		100	47 - 145	2	48
Acenaphthylene	<0.19		19.1	18.0		ug/L		94	33 - 145	3	74
Aniline	<0.19		19.1	11.5		ug/L		60	10 - 113	2	30
Anthracene	<0.19		19.1	21.0		ug/L		110	27 - 133	1	66
Benzidine	<4.8	*- F1 F2	19.1	<4.8	F1 F2	ug/L		-2	10 - 57	80	30
Benzo[a]anthracene	<0.19		19.1	20.4		ug/L		107	33 - 143	1	53
Benzo[a]pyrene	<0.19		19.1	21.0		ug/L		110	17 - 163	1	72
Benzo[b]fluoranthene	<0.19		19.1	20.7		ug/L		108	24 - 159	2	71
Benzo[g,h,i]perylene	<0.19		19.1	19.7		ug/L		103	1 - 219	1	97
Benzo[k]fluoranthene	<0.19		19.1	20.9		ug/L		109	11 - 162	2	63
Benzoic acid	<9.5	F2	19.1	<9.6	F2	ug/L		20	10 - 97	60	30
Benzyl alcohol	<0.95		19.1	17.1		ug/L		89	10 - 122	3	30
Bis(2-chloroethoxy)methane	<0.19		19.1	16.7		ug/L		87	33 - 184	4	54
Bis(2-chloroethyl)ether	<0.19		19.1	19.4		ug/L		101	12 - 158	8	108
bis (2-Chloroisopropyl) ether	<0.19		19.1	18.5		ug/L		97	36 - 166	8	76

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143376-A-3-B MSD**

**Client Sample ID: Matrix Spike Duplicate**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 557358**

**Prep Batch: 553677**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Chrysene	<0.19		19.1	20.3		ug/L		106	17 - 168	1	87
Dibenz(a,h)anthracene	<0.19		19.1	19.3		ug/L		101	1 - 227	1	126
Dibenzofuran	<0.19		19.1	19.9		ug/L		104	42 - 111	2	30
Fluoranthene	<0.19	*+	19.1	22.7		ug/L		119	26 - 137	0	66
Fluorene	<0.19		19.1	19.1		ug/L		100	59 - 121	2	38
Hexachloroethane	<0.19		19.1	16.5		ug/L		87	40 - 120	12	52
Indeno[1,2,3-cd]pyrene	<0.19		19.1	20.6		ug/L		108	1 - 171	3	99
Naphthalene	<0.19		19.1	15.5		ug/L		81	21 - 133	5	65
Nitrobenzene	<0.19		19.1	15.5		ug/L		81	35 - 180	3	62
N-Nitrosodi-n-propylamine	<0.19		19.1	17.9		ug/L		93	1 - 230	5	87
N-Nitrosodiphenylamine	<0.19		19.1	24.3		ug/L		127	10 - 179	2	30
Pentachlorophenol	<0.95		19.1	21.2		ug/L		111	14 - 176	5	86
Phenanthrene	<0.19		19.1	20.6		ug/L		108	54 - 120	1	39
Phenol	<0.95		19.1	9.20		ug/L		48	5 - 120	3	64
Pyrene	<0.19		19.1	21.7		ug/L		113	52 - 120	3	49

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	113		28 - 127
2-Fluorobiphenyl (Surr)	101		31 - 120
2-Fluorophenol (Surr)	69		17 - 120
Nitrobenzene-d5 (Surr)	84		27 - 120
Phenol-d6 (Surr)	45		10 - 120
p-Terphenyl-d14 (Surr)	107		45 - 120

**Lab Sample ID: MB 570-555182/1-A**

**Client Sample ID: Method Blank**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 557573**

**Prep Batch: 555182**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Methylnaphthalene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
2,4,5-Trichlorophenol	<5.0		5.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
2,4,6-Trichlorophenol	<1.0		1.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
2,4-Dichlorophenol	<1.0		1.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
2,4-Dinitrophenol	<5.0		5.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
2,6-Dichlorophenol	<5.0		5.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
2-Chloronaphthalene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
2-Chlorophenol	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
2-Methylnaphthalene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
2-Methylphenol	<1.0		1.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
2-Nitroaniline	<5.0		5.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
2-Nitrophenol	<5.0		5.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
3/4-Methylphenol	<2.0		2.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
3-Nitroaniline	<5.0		5.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
4,6-Dinitro-2-methylphenol	<5.0		5.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
4-Bromophenyl phenyl ether	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
4-Chloro-3-methylphenol	<1.0		1.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
4-Chloroaniline	<5.0		5.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
4-Chlorophenyl phenyl ether	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: MB 570-555182/1-A**  
**Matrix: Water**  
**Analysis Batch: 557573**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 555182**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
4-Nitroaniline	<5.0		5.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
4-Nitrophenol	<5.0		5.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
Acenaphthene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Acenaphthylene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Aniline	0.366	B	0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Anthracene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Benzidine	<5.0		5.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
Benzo[a]anthracene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Benzo[a]pyrene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Benzo[b]fluoranthene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Benzo[g,h,i]perylene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Benzo[k]fluoranthene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Benzoic acid	<10		10	ug/L		04/08/25 13:10	04/14/25 15:36	1
Benzyl alcohol	<1.0		1.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
Bis(2-chloroethoxy)methane	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Bis(2-chloroethyl)ether	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
bis (2-Chloroisopropyl) ether	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Chrysene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Dibenz(a,h)anthracene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Dibenzofuran	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Fluoranthene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Fluorene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Hexachloroethane	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Naphthalene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Nitrobenzene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
N-Nitrosodi-n-propylamine	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
N-Nitrosodiphenylamine	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Pentachlorophenol	<1.0		1.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
Phenanthrene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1
Phenol	<1.0		1.0	ug/L		04/08/25 13:10	04/14/25 15:36	1
Pyrene	<0.20		0.20	ug/L		04/08/25 13:10	04/14/25 15:36	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	100		28 - 127	04/08/25 13:10	04/14/25 15:36	1
2-Fluorobiphenyl (Surr)	88		31 - 120	04/08/25 13:10	04/14/25 15:36	1
2-Fluorophenol (Surr)	46		17 - 120	04/08/25 13:10	04/14/25 15:36	1
Nitrobenzene-d5 (Surr)	88		27 - 120	04/08/25 13:10	04/14/25 15:36	1
Phenol-d6 (Surr)	27		10 - 120	04/08/25 13:10	04/14/25 15:36	1
p-Terphenyl-d14 (Surr)	94		45 - 120	04/08/25 13:10	04/14/25 15:36	1

**Lab Sample ID: LCS 570-555182/2-A**  
**Matrix: Water**  
**Analysis Batch: 558249**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 555182**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
1-Methylnaphthalene	20.0	15.9		ug/L		79	47 - 120
2,4,5-Trichlorophenol	20.0	16.9		ug/L		85	57 - 120

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# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: LCS 570-555182/2-A**  
**Matrix: Water**  
**Analysis Batch: 558249**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 555182**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,6-Trichlorophenol	20.0	16.0		ug/L		80	52 - 129
2,4-Dichlorophenol	20.0	17.3		ug/L		87	53 - 122
2,4-Dinitrophenol	20.0	16.1		ug/L		81	1 - 173
2,6-Dichlorophenol	20.0	17.1		ug/L		86	50 - 120
2-Chloronaphthalene	20.0	16.1		ug/L		81	65 - 120
2-Chlorophenol	20.0	17.2		ug/L		86	36 - 120
2-Methylnaphthalene	20.0	18.0		ug/L		90	43 - 120
2-Methylphenol	20.0	15.2		ug/L		76	46 - 120
2-Nitroaniline	20.0	14.7		ug/L		73	51 - 125
2-Nitrophenol	20.0	15.9		ug/L		79	45 - 167
3/4-Methylphenol	40.0	27.7		ug/L		69	29 - 120
3-Nitroaniline	20.0	4.36	J *	ug/L		22	62 - 129
4,6-Dinitro-2-methylphenol	20.0	14.3		ug/L		71	53 - 130
4-Bromophenyl phenyl ether	20.0	16.5		ug/L		82	65 - 120
4-Chloro-3-methylphenol	20.0	16.7		ug/L		84	41 - 128
4-Chloroaniline	20.0	1.19	J *	ug/L		6	51 - 120
4-Chlorophenyl phenyl ether	20.0	16.5		ug/L		82	38 - 145
4-Nitroaniline	20.0	8.36	*-	ug/L		42	64 - 129
4-Nitrophenol	20.0	7.90		ug/L		39	13 - 129
Acenaphthene	20.0	16.2		ug/L		81	60 - 132
Acenaphthylene	20.0	15.2		ug/L		76	54 - 126
Aniline	20.0	0.207	*-	ug/L		1	52 - 121
Anthracene	20.0	16.0		ug/L		80	43 - 120
Benzidine	20.0	<0.94	*-	ug/L		0	20 - 164
Benzo[a]anthracene	20.0	16.6		ug/L		83	42 - 133
Benzo[a]pyrene	20.0	16.4		ug/L		82	32 - 148
Benzo[b]fluoranthene	20.0	17.2		ug/L		86	42 - 140
Benzo[g,h,i]perylene	20.0	17.5		ug/L		87	1 - 195
Benzo[k]fluoranthene	20.0	17.1		ug/L		86	25 - 146
Benzoic acid	20.0	7.77	J	ug/L		39	20 - 120
Benzyl alcohol	20.0	18.3		ug/L		91	44 - 122
Bis(2-chloroethoxy)methane	20.0	16.8		ug/L		84	49 - 165
Bis(2-chloroethyl)ether	20.0	17.1		ug/L		85	43 - 126
bis (2-Chloroisopropyl) ether	20.0	16.9		ug/L		84	63 - 139
Chrysene	20.0	16.5		ug/L		82	44 - 140
Dibenz(a,h)anthracene	20.0	18.1		ug/L		90	1 - 200
Dibenzofuran	20.0	16.1		ug/L		80	48 - 120
Fluoranthene	20.0	17.0		ug/L		85	43 - 121
Fluorene	20.0	16.2		ug/L		81	70 - 120
Hexachloroethane	20.0	14.7		ug/L		73	55 - 120
Indeno[1,2,3-cd]pyrene	20.0	18.1		ug/L		91	1 - 151
Naphthalene	20.0	16.1		ug/L		80	36 - 120
Nitrobenzene	20.0	17.7		ug/L		88	54 - 158
N-Nitrosodi-n-propylamine	20.0	16.4		ug/L		82	14 - 198
N-Nitrosodiphenylamine	20.0	16.0		ug/L		80	65 - 133
Pentachlorophenol	20.0	16.0		ug/L		80	38 - 152
Phenanthrene	20.0	16.1		ug/L		80	65 - 120
Phenol	20.0	7.13		ug/L		36	17 - 120
Pyrene	20.0	16.8		ug/L		84	70 - 120

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	79		28 - 127
2-Fluorobiphenyl (Surr)	84		31 - 120
2-Fluorophenol (Surr)	53		17 - 120
Nitrobenzene-d5 (Surr)	88		27 - 120
Phenol-d6 (Surr)	34		10 - 120
p-Terphenyl-d14 (Surr)	92		45 - 120

**Lab Sample ID: LCSD 570-555182/3-A**  
**Matrix: Water**  
**Analysis Batch: 558249**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 555182**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
1-Methylnaphthalene	20.0	16.9		ug/L		85	47 - 120	6	20	
2,4,5-Trichlorophenol	20.0	18.5		ug/L		92	57 - 120	9	20	
2,4,6-Trichlorophenol	20.0	17.2		ug/L		86	52 - 129	7	35	
2,4-Dichlorophenol	20.0	18.1		ug/L		91	53 - 122	4	30	
2,4-Dinitrophenol	20.0	16.7		ug/L		84	1 - 173	3	79	
2,6-Dichlorophenol	20.0	18.1		ug/L		91	50 - 120	6	20	
2-Chloronaphthalene	20.0	17.4		ug/L		87	65 - 120	7	15	
2-Chlorophenol	20.0	18.8		ug/L		94	36 - 120	9	37	
2-Methylnaphthalene	20.0	19.7		ug/L		98	43 - 120	9	20	
2-Methylphenol	20.0	16.6		ug/L		83	46 - 120	9	20	
2-Nitroaniline	20.0	17.4		ug/L		87	51 - 125	17	20	
2-Nitrophenol	20.0	17.3		ug/L		87	45 - 167	9	33	
3/4-Methylphenol	40.0	30.3		ug/L		76	29 - 120	9	20	
3-Nitroaniline	20.0	9.58	*- *1	ug/L		48	62 - 129	75	20	
4,6-Dinitro-2-methylphenol	20.0	15.5		ug/L		78	53 - 130	9	122	
4-Bromophenyl phenyl ether	20.0	17.3		ug/L		86	65 - 120	5	26	
4-Chloro-3-methylphenol	20.0	17.7		ug/L		88	41 - 128	5	44	
4-Chloroaniline	20.0	2.03	J *- *1	ug/L		10	51 - 120	52	20	
4-Chlorophenyl phenyl ether	20.0	17.5		ug/L		87	38 - 145	6	36	
4-Nitroaniline	20.0	16.0	*1	ug/L		80	64 - 129	63	20	
4-Nitrophenol	20.0	8.43		ug/L		42	13 - 129	6	79	
Acenaphthene	20.0	17.0		ug/L		85	60 - 132	5	29	
Acenaphthylene	20.0	15.9		ug/L		80	54 - 126	4	45	
Aniline	20.0	0.233	*-	ug/L		1	52 - 121	12	21	
Anthracene	20.0	17.0		ug/L		85	43 - 120	6	40	
Benzidine	20.0	2.56	J *- *1	ug/L		13	20 - 164	200	30	
Benzo[a]anthracene	20.0	17.5		ug/L		87	42 - 133	5	32	
Benzo[a]pyrene	20.0	17.3		ug/L		86	32 - 148	5	43	
Benzo[b]fluoranthene	20.0	18.4		ug/L		92	42 - 140	7	43	
Benzo[g,h,i]perylene	20.0	18.0		ug/L		90	1 - 195	3	61	
Benzo[k]fluoranthene	20.0	18.0		ug/L		90	25 - 146	5	38	
Benzoic acid	20.0	7.86	J	ug/L		39	20 - 120	1	30	
Benzyl alcohol	20.0	19.8		ug/L		99	44 - 122	8	20	
Bis(2-chloroethoxy)methane	20.0	18.0		ug/L		90	49 - 165	7	32	
Bis(2-chloroethyl)ether	20.0	19.4		ug/L		97	43 - 126	13	65	
bis (2-Chloroisopropyl) ether	20.0	18.6		ug/L		93	63 - 139	10	46	
Chrysene	20.0	17.6		ug/L		88	44 - 140	7	53	
Dibenz(a,h)anthracene	20.0	18.5		ug/L		93	1 - 200	2	75	
Dibenzofuran	20.0	17.4		ug/L		87	48 - 120	8	20	

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: LCSD 570-555182/3-A**  
**Matrix: Water**  
**Analysis Batch: 558249**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 555182**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoranthene	20.0	18.0		ug/L		90	43 - 121	6	40
Fluorene	20.0	17.4		ug/L		87	70 - 120	7	23
Hexachloroethane	20.0	16.8		ug/L		84	55 - 120	13	32
Indeno[1,2,3-cd]pyrene	20.0	19.1		ug/L		95	1 - 151	5	60
Naphthalene	20.0	16.9		ug/L		84	36 - 120	5	39
Nitrobenzene	20.0	18.6		ug/L		93	54 - 158	5	37
N-Nitrosodi-n-propylamine	20.0	19.1		ug/L		96	14 - 198	15	52
N-Nitrosodiphenylamine	20.0	20.4	*1	ug/L		102	65 - 133	24	20
Pentachlorophenol	20.0	17.5		ug/L		88	38 - 152	9	52
Phenanthrene	20.0	17.6		ug/L		88	65 - 120	9	24
Phenol	20.0	7.96		ug/L		40	17 - 120	11	39
Pyrene	20.0	18.0		ug/L		90	70 - 120	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	87		28 - 127
2-Fluorobiphenyl (Surr)	92		31 - 120
2-Fluorophenol (Surr)	60		17 - 120
Nitrobenzene-d5 (Surr)	94		27 - 120
Phenol-d6 (Surr)	39		10 - 120
p-Terphenyl-d14 (Surr)	98		45 - 120

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

**Lab Sample ID: MB 570-558265/6**  
**Matrix: Water**  
**Analysis Batch: 558265**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10	ug/L			04/15/25 15:49	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		38 - 134		04/15/25 15:49	1

**Lab Sample ID: LCS 570-558265/4**  
**Matrix: Water**  
**Analysis Batch: 558265**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	400	337		ug/L		84	78 - 120

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
4-Bromofluorobenzene (Surr)	90		38 - 134

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: LCSD 570-558265/5**  
**Matrix: Water**  
**Analysis Batch: 558265**

**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	336		ug/L		84	78 - 120	0	10
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>						<b>Limits</b>
4-Bromofluorobenzene (Surr)		90							38 - 134

**Lab Sample ID: MRL 570-558265/3**  
**Matrix: Water**  
**Analysis Batch: 558265**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)	10.0	10.8		ug/L		108	50 - 150		
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>						<b>Limits</b>
4-Bromofluorobenzene (Surr)		87							38 - 134

**Lab Sample ID: 380-144829-C-3 MS**  
**Matrix: Water**  
**Analysis Batch: 558265**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)	<10		400	299		ug/L		75	68 - 122		
<b>Surrogate</b>		<b>%Recovery</b>		<b>Qualifier</b>							<b>Limits</b>
4-Bromofluorobenzene (Surr)		91									38 - 134

**Lab Sample ID: 380-144829-C-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 558265**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	342		ug/L		85	68 - 122	13	18
<b>Surrogate</b>		<b>%Recovery</b>		<b>Qualifier</b>							<b>Limits</b>
4-Bromofluorobenzene (Surr)		93									38 - 134

## Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC)

**Lab Sample ID: MBL 380-146213/4-A**  
**Matrix: Water**  
**Analysis Batch: 146555**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 146213**

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.0040		0.020	ug/L		04/09/25 11:50	04/09/25 14:08	1
1,2-Dibromo-3-Chloropropane	<0.0020		0.010	ug/L		04/09/25 11:50	04/09/25 14:08	1
1,2-Dibromoethane	<0.0040		0.010	ug/L		04/09/25 11:50	04/09/25 14:08	1

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# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dibromopropane (Surr)	98		60 - 140	04/09/25 11:50	04/09/25 14:08	1

**Lab Sample ID: LCS 380-146213/29-A**  
**Matrix: Water**  
**Analysis Batch: 146555**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 146213**

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
1,2,3-Trichloropropane	0.200	0.224		ug/L		112	70 - 130
1,2-Dibromo-3-Chloropropane	0.200	0.197		ug/L		99	70 - 130
1,2-Dibromoethane	0.200	0.206		ug/L		103	70 - 130

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
1,2-Dibromopropane (Surr)	105		60 - 140

**Lab Sample ID: MRL 380-146213/2-A**  
**Matrix: Water**  
**Analysis Batch: 146555**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 146213**

<i>Analyte</i>	<i>Spike Added</i>	<i>MRL Result</i>	<i>MRL Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
1,2,3-Trichloropropane	0.0200	0.0223		ug/L		111	60 - 140

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
1,2-Dibromopropane (Surr)	105		60 - 140

**Lab Sample ID: MRL 380-146213/3-A**  
**Matrix: Water**  
**Analysis Batch: 146555**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 146213**

<i>Analyte</i>	<i>Spike Added</i>	<i>MRL Result</i>	<i>MRL Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
1,2,3-Trichloropropane	0.0500	0.0518		ug/L		104	60 - 140
1,2-Dibromo-3-Chloropropane	0.0100	0.0102		ug/L		102	60 - 140
1,2-Dibromoethane	0.0100	0.00972	J	ug/L		97	60 - 140

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
1,2-Dibromopropane (Surr)	105		60 - 140

**Lab Sample ID: 380-144238-DR-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 146555**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 146213**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
1,2,3-Trichloropropane	<0.020		1.26	1.29		ug/L		102	65 - 135
1,2-Dibromo-3-Chloropropane	<0.010		0.252	0.251		ug/L		99	65 - 135
1,2-Dibromoethane	<0.010		0.252	0.249		ug/L		99	65 - 135

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
1,2-Dibromopropane (Surr)	99		60 - 140

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 504.1 - EDB, DBCP and 1,2,3-TCP (GC) (Continued)

**Lab Sample ID: 380-144238-DS-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 146555**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 146213**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
1,2,3-Trichloropropane	<0.020		<0.020		ug/L		NC	20
1,2-Dibromo-3-Chloropropane	<0.010		<0.010		ug/L		NC	20
1,2-Dibromoethane	<0.010		<0.010		ug/L		NC	20
<b>DU DU</b>								
Surrogate	%Recovery	Qualifier	Limits					
1,2-Dibromopropane (Surr)	105		60 - 140					

## Method: 505 - Organochlorine Pesticides/PCBs (GC)

**Lab Sample ID: MB 380-145540/3-A**  
**Matrix: Water**  
**Analysis Batch: 145827**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 145540**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Toxaphene	<0.50		0.50	ug/L		04/04/25 15:40	04/05/25 04:47	1
Chlordane (n.o.s.)	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 04:47	1
PCB-1016	<0.070		0.070	ug/L		04/04/25 15:40	04/05/25 04:47	1
PCB-1221	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 04:47	1
PCB-1232	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 04:47	1
PCB-1242	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 04:47	1
PCB-1248	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 04:47	1
PCB-1254	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 04:47	1
PCB-1260	<0.070		0.070	ug/L		04/04/25 15:40	04/05/25 04:47	1
Polychlorinated biphenyls, Total	<0.10		0.10	ug/L		04/04/25 15:40	04/05/25 04:47	1
<b>MB MB</b>								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	98		70 - 130			04/04/25 15:40	04/05/25 04:47	1

**Lab Sample ID: LCS 380-145540/28-A**  
**Matrix: Water**  
**Analysis Batch: 145827**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145540**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Toxaphene	2.50	2.60		ug/L		104	70 - 130
<b>LCS LCS</b>							
Surrogate	%Recovery	Qualifier	Limits				
Tetrachloro-m-xylene	99		70 - 130				

**Lab Sample ID: LCS 380-145540/30-A**  
**Matrix: Water**  
**Analysis Batch: 145827**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145540**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Chlordane (n.o.s.)	0.500	0.466		ug/L		93	70 - 130
<b>LCS LCS</b>							
Surrogate	%Recovery	Qualifier	Limits				
Tetrachloro-m-xylene	101		70 - 130				

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 505 - Organochlorine Pesticides/PCBs (GC) (Continued)

**Lab Sample ID: LCS 380-145540/31-A**  
**Matrix: Water**  
**Analysis Batch: 145827**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145540**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1254	0.500	0.534		ug/L		107	70 - 130
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>				
Tetrachloro-m-xylene	99		70 - 130				

**Lab Sample ID: LCSD 380-145540/29-A**  
**Matrix: Water**  
**Analysis Batch: 145827**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 145540**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toxaphene	2.50	2.50		ug/L		100	70 - 130	4	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCSD Qualifier</b>	<b>Limits</b>						
Tetrachloro-m-xylene	98		70 - 130						

**Lab Sample ID: MRL 380-145540/1-A**  
**Matrix: Water**  
**Analysis Batch: 145827**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145540**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Toxaphene	0.500	0.583		ug/L		117	50 - 150
<b>Surrogate</b>	<b>%Recovery</b>	<b>MRL Qualifier</b>	<b>Limits</b>				
Tetrachloro-m-xylene	104		70 - 130				

**Lab Sample ID: MRL 380-145540/2-A**  
**Matrix: Water**  
**Analysis Batch: 145827**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145540**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlordane (n.o.s.)	0.100	0.0963	J	ug/L		96	50 - 150
<b>Surrogate</b>	<b>%Recovery</b>	<b>MRL Qualifier</b>	<b>Limits</b>				
Tetrachloro-m-xylene	99		70 - 130				

**Lab Sample ID: 380-143067-AP-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 145827**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 145540**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Toxaphene	<0.50		2.48	2.56		ug/L		103	65 - 135
<b>Surrogate</b>	<b>%Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>						
Tetrachloro-m-xylene	94		70 - 130						



# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: LCS 570-554296/2-A**  
**Matrix: Water**  
**Analysis Batch: 557672**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 554296**

	LCS %Recovery	LCS Qualifier	Limits
<i>Surrogate</i> <i>n-Octacosane (Surr)</i>	103		60 - 130

**Lab Sample ID: LCSD 570-554296/3-A**  
**Matrix: Water**  
**Analysis Batch: 557672**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 554296**

	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Analyte C10-C28	1600	1340		ug/L		84	56 - 127	0	23
<i>Surrogate</i> <i>n-Octacosane (Surr)</i>									

**Lab Sample ID: MRL 570-554296/4-A**  
**Matrix: Water**  
**Analysis Batch: 557672**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 554296**

	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	
Analyte C10-C28	0.0200	0.0308	^3+	mg/L		154	50 - 150	
<i>Surrogate</i> <i>n-Octacosane (Surr)</i>								

**Lab Sample ID: 380-143376-B-3-B MS**  
**Matrix: Water**  
**Analysis Batch: 557672**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 554296**

	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Analyte C10-C28	<26	^3+	1680	1400		ug/L		83	70 - 130
<i>Surrogate</i> <i>n-Octacosane (Surr)</i>									

**Lab Sample ID: 380-143376-B-3-C MSD**  
**Matrix: Water**  
**Analysis Batch: 557672**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 554296**

	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Analyte C10-C28	<26	^3+	1680	1250		ug/L		74	70 - 130	11	20
<i>Surrogate</i> <i>n-Octacosane (Surr)</i>											

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

**Lab Sample ID: MB 570-557182/3**  
**Matrix: Water**  
**Analysis Batch: 557182**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	<0.10		0.10	mg/L			04/12/25 15:20	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Hexafluoro-2-propanol (Surr)	91		54 - 120				04/12/25 15:20	1

**Lab Sample ID: LCS 570-557182/4**  
**Matrix: Water**  
**Analysis Batch: 557182**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethanol	2.00	2.07		mg/L		103	78 - 131
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Hexafluoro-2-propanol (Surr)	95		54 - 120				

**Lab Sample ID: LCSD 570-557182/5**  
**Matrix: Water**  
**Analysis Batch: 557182**

**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
Ethanol	2.00	1.93		mg/L		96	78 - 131	4	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Hexafluoro-2-propanol (Surr)	94		54 - 120						

**Lab Sample ID: MRL 570-557182/6**  
**Matrix: Water**  
**Analysis Batch: 557182**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Ethanol	0.100	0.0808	J	mg/L		81	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
Hexafluoro-2-propanol (Surr)	116		54 - 120				

**Lab Sample ID: 380-143415-AC-1 MS**  
**Matrix: Water**  
**Analysis Batch: 557182**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethanol	<0.10		2.00	2.22		mg/L		111	20 - 173
Surrogate	MS %Recovery	MS Qualifier	Limits						
Hexafluoro-2-propanol (Surr)	86		54 - 120						

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) (Continued)

**Lab Sample ID: 380-143415-AC-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 557182**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethanol	<0.10		2.00	2.23		mg/L		111	20 - 173	1	21
<b>Surrogate</b>	<b>MSD %Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
Hexafluoro-2-propanol (Surr)	88		54 - 120								

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 380-145589/39**  
**Matrix: Water**  
**Analysis Batch: 145589**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.50		0.50	mg/L			04/04/25 19:44	1
Sulfate	<0.25		0.25	mg/L			04/04/25 19:44	1

**Lab Sample ID: LCS 380-145589/42**  
**Matrix: Water**  
**Analysis Batch: 145589**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	26.7		mg/L		107	90 - 110
Sulfate	50.0	51.8		mg/L		104	90 - 110

**Lab Sample ID: LCSD 380-145589/43**  
**Matrix: Water**  
**Analysis Batch: 145589**

**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
Chloride	25.0	26.1		mg/L		104	90 - 110	3	20
Sulfate	50.0	50.7		mg/L		101	90 - 110	2	20

**Lab Sample ID: MRL 380-145589/40**  
**Matrix: Water**  
**Analysis Batch: 145589**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.125	0.109	J	mg/L		87	50 - 150
Sulfate	0.250	0.209	J	mg/L		84	50 - 150

**Lab Sample ID: MRL 380-145589/41**  
**Matrix: Water**  
**Analysis Batch: 145589**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.421	J	mg/L		84	50 - 150
Sulfate	1.00	0.921		mg/L		92	50 - 150

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 380-143885-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 145589**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2.4		12.5	15.6		mg/L		106	80 - 120
Sulfate	0.53		25.0	26.0		mg/L		102	80 - 120

**Lab Sample ID: 380-143885-A-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 145589**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2.4		12.5	15.8		mg/L		107	80 - 120	1	20
Sulfate	0.53		25.0	26.4		mg/L		103	80 - 120	1	20

**Lab Sample ID: 380-143894-A-3 MS**  
**Matrix: Water**  
**Analysis Batch: 145589**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	27		12.5	40.2		mg/L		102	80 - 120
Sulfate	21		25.0	47.3		mg/L		104	80 - 120

**Lab Sample ID: 380-143894-A-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 145589**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	27		12.5	40.0		mg/L		100	80 - 120	1	20
Sulfate	21		25.0	46.8		mg/L		102	80 - 120	1	20

**Lab Sample ID: MB 380-145652/4**  
**Matrix: Water**  
**Analysis Batch: 145652**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.50		0.50	mg/L			04/05/25 11:04	1
Sulfate	<0.25		0.25	mg/L			04/05/25 11:04	1

**Lab Sample ID: LCS 380-145652/7**  
**Matrix: Water**  
**Analysis Batch: 145652**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	27.1		mg/L		108	90 - 110
Sulfate	50.0	52.2		mg/L		104	90 - 110

**Lab Sample ID: LCSD 380-145652/8**  
**Matrix: Water**  
**Analysis Batch: 145652**

**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
Chloride	25.0	26.3		mg/L		105	90 - 110	3	20
Sulfate	50.0	51.1		mg/L		102	90 - 110	2	20

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# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MRL 380-145652/5**  
**Matrix: Water**  
**Analysis Batch: 145652**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.125	0.117	J	mg/L		94	50 - 150
Sulfate	0.250	0.215	J	mg/L		86	50 - 150

**Lab Sample ID: MRL 380-145652/6**  
**Matrix: Water**  
**Analysis Batch: 145652**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.450	J	mg/L		90	50 - 150
Sulfate	1.00	0.899		mg/L		90	50 - 150

**Lab Sample ID: 380-143838-1 MS**  
**Matrix: Drinking Water**  
**Analysis Batch: 145652**

**Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	95	F1 ^2	25.0	113	E F1	mg/L		70	80 - 120
Sulfate	13		50.0	65.7		mg/L		106	80 - 120

**Lab Sample ID: 380-143838-1 MSD**  
**Matrix: Drinking Water**  
**Analysis Batch: 145652**

**Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	95	F1 ^2	25.0	112	E F1	mg/L		70	80 - 120	0	20
Sulfate	13		50.0	63.9		mg/L		102	80 - 120	3	20

**Lab Sample ID: MB 380-146132/6**  
**Matrix: Water**  
**Analysis Batch: 146132**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<5.0		5.0	ug/L			04/08/25 23:48	1

**Lab Sample ID: LCS 380-146132/7**  
**Matrix: Water**  
**Analysis Batch: 146132**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	100	98.1		ug/L		98	90 - 110

**Lab Sample ID: LCSD 380-146132/8**  
**Matrix: Water**  
**Analysis Batch: 146132**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Bromide	100	98.2		ug/L		98	90 - 110	0	10

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: MRL 380-146132/5**  
**Matrix: Water**  
**Analysis Batch: 146132**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	4.94	J	ug/L		99	75 - 125

**Lab Sample ID: 380-143829-D-1 MS**  
**Matrix: Water**  
**Analysis Batch: 146132**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	<5.0		50.0	49.7		ug/L		99	80 - 120

**Lab Sample ID: 380-143829-D-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 146132**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	<5.0		50.0	49.1		ug/L		98	80 - 120	1	20

**Lab Sample ID: 380-143852-A-2 MS**  
**Matrix: Water**  
**Analysis Batch: 146132**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	140		50.0	184		ug/L		94	80 - 120

**Lab Sample ID: 380-143852-A-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 146132**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	140		50.0	185		ug/L		96	80 - 120	0	20

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MBL 380-145860/129**  
**Matrix: Water**  
**Analysis Batch: 145860**

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

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.031		0.10	mg/L			04/07/25 13:32	1
Magnesium	0.0126	J B	0.10	mg/L			04/07/25 13:32	1
Potassium	<0.044		0.10	mg/L			04/07/25 13:32	1
Sodium	<0.019		0.10	mg/L			04/07/25 13:32	1

**Lab Sample ID: LCS 380-145860/132**  
**Matrix: Water**  
**Analysis Batch: 145860**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	50.0	50.1		mg/L		100	85 - 115
Magnesium	20.0	20.0		mg/L		100	85 - 115
Potassium	20.0	19.8		mg/L		99	85 - 115

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# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCS 380-145860/132**  
**Matrix: Water**  
**Analysis Batch: 145860**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	50.0	49.5		mg/L		99	85 - 115

**Lab Sample ID: LCSD 380-145860/133**  
**Matrix: Water**  
**Analysis Batch: 145860**

**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
Calcium	50.0	50.2		mg/L		100	85 - 115	0	20
Magnesium	20.0	20.1		mg/L		101	85 - 115	0	20
Potassium	20.0	19.9		mg/L		99	85 - 115	0	20
Sodium	50.0	49.8		mg/L		100	85 - 115	1	20

**Lab Sample ID: LLCS 380-145860/130**  
**Matrix: Water**  
**Analysis Batch: 145860**

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	0.100	0.0931	J	mg/L		93	50 - 150
Magnesium	0.100	0.110		mg/L		110	50 - 150
Potassium	0.100	0.102		mg/L		102	50 - 150
Sodium	0.100	0.100		mg/L		100	50 - 150

**Lab Sample ID: LLCS 380-145860/131**  
**Matrix: Water**  
**Analysis Batch: 145860**

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	0.100	0.110		mg/L		110	50 - 150

**Lab Sample ID: 380-143952-A-3 MS**  
**Matrix: Water**  
**Analysis Batch: 145860**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	9.7		50.0	58.3		mg/L		97	70 - 130
Magnesium	8.7	B	20.0	28.1		mg/L		97	70 - 130
Potassium	0.70		20.0	20.1		mg/L		97	70 - 130
Sodium	19		50.0	66.9		mg/L		95	70 - 130

**Lab Sample ID: 380-143952-A-3 MSD**  
**Matrix: Water**  
**Analysis Batch: 145860**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	9.7		50.0	58.3		mg/L		97	70 - 130	0	20
Magnesium	8.7	B	20.0	28.0		mg/L		97	70 - 130	0	20
Potassium	0.70		20.0	20.2		mg/L		97	70 - 130	0	20
Sodium	19		50.0	66.7		mg/L		95	70 - 130	0	20

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 200.8 - Metals (ICP/MS)

**Lab Sample ID: MBL 380-145975/83**  
**Matrix: Water**  
**Analysis Batch: 145975**

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

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.48		1.0	ug/L			04/07/25 14:20	1
Arsenic	<0.25		1.0	ug/L			04/07/25 14:20	1
Cadmium	<0.081		0.50	ug/L			04/07/25 14:20	1
Chromium	<0.33		0.90	ug/L			04/07/25 14:20	1
Copper	<0.28		1.0	ug/L			04/07/25 14:20	1
Lead	<0.084		0.50	ug/L			04/07/25 14:20	1
Nickel	<0.38		1.0	ug/L			04/07/25 14:20	1
Selenium	<0.25		2.0	ug/L			04/07/25 14:20	1
Silver	<0.30		0.50	ug/L			04/07/25 14:20	1
Thallium	<0.10		0.30	ug/L			04/07/25 14:20	1
Zinc	<1.3		5.0	ug/L			04/07/25 14:20	1

**Lab Sample ID: LCS 380-145975/85**  
**Matrix: Water**  
**Analysis Batch: 145975**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	49.0		ug/L		98	85 - 115
Arsenic	50.0	50.0		ug/L		100	85 - 115
Cadmium	50.0	50.0		ug/L		100	85 - 115
Chromium	50.0	50.3		ug/L		101	85 - 115
Copper	50.0	49.0		ug/L		98	85 - 115
Lead	50.0	52.3		ug/L		105	85 - 115
Nickel	50.0	49.1		ug/L		98	85 - 115
Selenium	50.0	51.8		ug/L		104	85 - 115
Silver	50.0	50.7		ug/L		101	85 - 115
Thallium	50.0	53.1		ug/L		106	85 - 115
Zinc	50.0	47.7		ug/L		95	85 - 115

**Lab Sample ID: LCSD 380-145975/86**  
**Matrix: Water**  
**Analysis Batch: 145975**

**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
Antimony	50.0	50.0		ug/L		100	85 - 115	2	20
Arsenic	50.0	50.0		ug/L		100	85 - 115	0	20
Cadmium	50.0	50.6		ug/L		101	85 - 115	1	20
Chromium	50.0	50.2		ug/L		100	85 - 115	0	20
Copper	50.0	49.2		ug/L		98	85 - 115	0	20
Lead	50.0	52.4		ug/L		105	85 - 115	0	20
Nickel	50.0	49.4		ug/L		99	85 - 115	1	20
Selenium	50.0	51.7		ug/L		103	85 - 115	0	20
Silver	50.0	51.2		ug/L		102	85 - 115	1	20
Thallium	50.0	53.1		ug/L		106	85 - 115	0	20
Zinc	50.0	47.8		ug/L		96	85 - 115	0	20

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 200.8 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LLCS 380-145975/84**  
**Matrix: Water**  
**Analysis Batch: 145975**

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.00	0.981	J	ug/L		98	50 - 150
Arsenic	1.00	0.940	J	ug/L		94	50 - 150
Cadmium	0.500	0.468	J	ug/L		94	50 - 150
Chromium	0.900	1.15		ug/L		127	50 - 150
Copper	1.00	1.01		ug/L		101	50 - 150
Lead	0.500	0.506		ug/L		101	50 - 150
Nickel	1.00	0.845	J	ug/L		85	50 - 150
Selenium	2.00	2.07		ug/L		104	50 - 150
Silver	0.500	0.496	J	ug/L		99	50 - 150
Thallium	0.300	0.311		ug/L		104	50 - 150
Zinc	4.99	4.76	J	ug/L		96	50 - 150

**Lab Sample ID: 380-143804-F-1 MS**  
**Matrix: Water**  
**Analysis Batch: 145975**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<1.0		50.0	48.6		ug/L		97	70 - 130
Arsenic	<1.0		50.0	53.3		ug/L		107	70 - 130
Cadmium	<0.50		50.0	53.2		ug/L		106	70 - 130
Chromium	<0.90		50.0	51.4		ug/L		102	70 - 130
Copper	28		50.0	77.2		ug/L		99	70 - 130
Lead	<0.50		50.0	52.8		ug/L		106	70 - 130
Nickel	<1.0		50.0	50.1		ug/L		100	70 - 130
Selenium	<2.0		50.0	60.1		ug/L		120	70 - 130
Silver	<0.50		50.0	49.8		ug/L		100	70 - 130
Thallium	<0.30		50.0	53.9		ug/L		108	70 - 130
Zinc	<5.0		50.0	54.8		ug/L		110	70 - 130

**Lab Sample ID: 380-143804-F-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 145975**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<1.0		50.0	49.8		ug/L		100	70 - 130	3	20
Arsenic	<1.0		50.0	52.9		ug/L		106	70 - 130	1	20
Cadmium	<0.50		50.0	53.8		ug/L		108	70 - 130	1	20
Chromium	<0.90		50.0	50.2		ug/L		99	70 - 130	2	20
Copper	28		50.0	76.1		ug/L		97	70 - 130	1	20
Lead	<0.50		50.0	53.9		ug/L		108	70 - 130	2	20
Nickel	<1.0		50.0	49.6		ug/L		99	70 - 130	1	20
Selenium	<2.0		50.0	59.5		ug/L		119	70 - 130	1	20
Silver	<0.50		50.0	51.8		ug/L		104	70 - 130	4	20
Thallium	<0.30		50.0	55.0		ug/L		110	70 - 130	2	20
Zinc	<5.0		50.0	54.0		ug/L		108	70 - 130	1	20

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 200.8 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MBL 380-146188/14**  
**Matrix: Water**  
**Analysis Batch: 146188**

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

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.48		1.0	ug/L			04/08/25 12:21	1
Arsenic	<0.25		1.0	ug/L			04/08/25 12:21	1
Beryllium	<0.12		0.30	ug/L			04/08/25 12:21	1
Cadmium	<0.081		0.50	ug/L			04/08/25 12:21	1
Chromium	<0.33		0.90	ug/L			04/08/25 12:21	1
Copper	<0.28		1.0	ug/L			04/08/25 12:21	1
Lead	<0.084		0.50	ug/L			04/08/25 12:21	1
Nickel	<0.38		1.0	ug/L			04/08/25 12:21	1
Selenium	<0.25		2.0	ug/L			04/08/25 12:21	1
Silver	<0.30		0.50	ug/L			04/08/25 12:21	1
Thallium	<0.10		0.30	ug/L			04/08/25 12:21	1
Zinc	<1.3		5.0	ug/L			04/08/25 12:21	1

**Lab Sample ID: LCS 380-146188/16**  
**Matrix: Water**  
**Analysis Batch: 146188**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	49.6		ug/L		99	85 - 115
Arsenic	50.0	51.9		ug/L		104	85 - 115
Beryllium	50.0	51.3		ug/L		103	85 - 115
Cadmium	50.0	50.8		ug/L		102	85 - 115
Chromium	50.0	51.2		ug/L		102	85 - 115
Copper	50.0	50.8		ug/L		102	85 - 115
Lead	50.0	51.0		ug/L		102	85 - 115
Nickel	50.0	51.7		ug/L		103	85 - 115
Selenium	50.0	50.8		ug/L		102	85 - 115
Silver	50.0	51.0		ug/L		102	85 - 115
Thallium	50.0	51.6		ug/L		103	85 - 115
Zinc	50.0	49.9		ug/L		100	85 - 115

**Lab Sample ID: LCSD 380-146188/17**  
**Matrix: Water**  
**Analysis Batch: 146188**

**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
Antimony	50.0	49.8		ug/L		100	85 - 115	0	20
Arsenic	50.0	51.5		ug/L		103	85 - 115	1	20
Beryllium	50.0	51.6		ug/L		103	85 - 115	0	20
Cadmium	50.0	50.4		ug/L		101	85 - 115	1	20
Chromium	50.0	51.2		ug/L		102	85 - 115	0	20
Copper	50.0	50.7		ug/L		101	85 - 115	0	20
Lead	50.0	50.8		ug/L		102	85 - 115	0	20
Nickel	50.0	52.0		ug/L		104	85 - 115	1	20
Selenium	50.0	50.8		ug/L		102	85 - 115	0	20
Silver	50.0	51.1		ug/L		102	85 - 115	0	20
Thallium	50.0	51.3		ug/L		103	85 - 115	1	20
Zinc	50.0	49.7		ug/L		99	85 - 115	0	20

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 200.8 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LLCS 380-146188/15**  
**Matrix: Water**  
**Analysis Batch: 146188**

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.00	1.03		ug/L		103	50 - 150
Arsenic	1.00	1.06		ug/L		106	50 - 150
Beryllium	0.300	0.303		ug/L		101	50 - 150
Cadmium	0.500	0.506		ug/L		101	50 - 150
Chromium	0.900	0.970		ug/L		108	50 - 150
Copper	1.00	1.03		ug/L		103	50 - 150
Lead	0.500	0.515		ug/L		103	50 - 150
Nickel	1.00	1.00		ug/L		100	50 - 150
Selenium	2.00	2.08		ug/L		104	50 - 150
Silver	0.500	0.511		ug/L		102	50 - 150
Thallium	0.300	0.307		ug/L		102	50 - 150
Zinc	4.99	4.95	J	ug/L		99	50 - 150

**Lab Sample ID: 380-143838-1 MS**  
**Matrix: Drinking Water**  
**Analysis Batch: 146188**

**Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<1.0		50.0	59.5		ug/L		119	70 - 130
Arsenic	<1.0		50.0	56.4		ug/L		113	70 - 130
Beryllium	<0.30		50.0	48.1		ug/L		96	70 - 130
Cadmium	<0.50		50.0	53.1		ug/L		106	70 - 130
Chromium	2.6		50.0	53.4		ug/L		102	70 - 130
Copper	3.2		50.0	51.8		ug/L		97	70 - 130
Lead	<0.50		50.0	50.2		ug/L		100	70 - 130
Nickel	<1.0		50.0	50.9		ug/L		101	70 - 130
Selenium	<2.0		50.0	58.7		ug/L		115	70 - 130
Silver	<0.50		50.0	49.3		ug/L		99	70 - 130
Thallium	<0.30		50.0	51.2		ug/L		102	70 - 130
Zinc	12		50.0	65.2		ug/L		106	70 - 130

**Lab Sample ID: 380-143838-1 MSD**  
**Matrix: Drinking Water**  
**Analysis Batch: 146188**

**Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<1.0		50.0	54.1		ug/L		108	70 - 130	10	20
Arsenic	<1.0		50.0	54.5		ug/L		109	70 - 130	3	20
Beryllium	<0.30		50.0	45.6		ug/L		91	70 - 130	5	20
Cadmium	<0.50		50.0	51.5		ug/L		103	70 - 130	3	20
Chromium	2.6		50.0	51.4		ug/L		98	70 - 130	4	20
Copper	3.2		50.0	49.9		ug/L		93	70 - 130	4	20
Lead	<0.50		50.0	48.2		ug/L		96	70 - 130	4	20
Nickel	<1.0		50.0	48.7		ug/L		96	70 - 130	4	20
Selenium	<2.0		50.0	56.5		ug/L		111	70 - 130	4	20
Silver	<0.50		50.0	47.6		ug/L		95	70 - 130	4	20
Thallium	<0.30		50.0	48.9		ug/L		98	70 - 130	5	20
Zinc	12		50.0	63.0		ug/L		101	70 - 130	3	20

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: 200.8 - Mercury (ICP/MS)

**Lab Sample ID: MBL 380-145810/1-A**  
**Matrix: Water**  
**Analysis Batch: 146191**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 145810**

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.079		0.20	ug/L		04/07/25 10:20	04/08/25 13:46	1

**Lab Sample ID: LCS 380-145810/3-A**  
**Matrix: Water**  
**Analysis Batch: 146191**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 145810**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.00	1.03		ug/L		103	85 - 115

**Lab Sample ID: LCSD 380-145810/4-A**  
**Matrix: Water**  
**Analysis Batch: 146191**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 145810**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	1.00	1.00		ug/L		100	85 - 115	3	20

**Lab Sample ID: LLCS 380-145810/2-A**  
**Matrix: Water**  
**Analysis Batch: 146191**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 145810**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.200	0.206		ug/L		103	50 - 150

**Lab Sample ID: 380-143673-B-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 146191**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 145810**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.20		1.00	1.03		ug/L		103	70 - 130

**Lab Sample ID: 380-143673-B-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 146191**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 145810**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.20		1.00	1.03		ug/L		103	70 - 130	0	20

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 380-145796/1**  
**Matrix: Water**  
**Analysis Batch: 145796**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	<4.0		4.0	mg/L			04/04/25 17:05	1
Bicarbonate Alkalinity as CaCO3	<4.0		4.0	mg/L			04/04/25 17:05	1
Carbonate Alkalinity as CaCO3	<4.0		4.0	mg/L			04/04/25 17:05	1

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# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: LCS 380-145796/4**  
**Matrix: Water**  
**Analysis Batch: 145796**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	96.7		mg/L		97	90 - 110

**Lab Sample ID: LCSD 380-145796/19**  
**Matrix: Water**  
**Analysis Batch: 145796**

**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
Alkalinity	100	97.8		mg/L		98	90 - 110	1	20

**Lab Sample ID: LLCS 380-145796/5**  
**Matrix: Water**  
**Analysis Batch: 145796**

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	20.0	19.1		mg/L		95	90 - 110

**Lab Sample ID: MRL 380-145796/3**  
**Matrix: Water**  
**Analysis Batch: 145796**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	4.00	4.29		mg/L		107	50 - 150

**Lab Sample ID: 380-143347-E-1 MS**  
**Matrix: Water**  
**Analysis Batch: 145796**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	130	F1	100	156	F1	mg/L		23	80 - 120

**Lab Sample ID: 380-143347-E-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 145796**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity	130	F1	100	156	F1	mg/L		24	80 - 120	0	20

**Lab Sample ID: 380-143347-E-1 DU**  
**Matrix: Water**  
**Analysis Batch: 145796**

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	130	F1	133		mg/L		0.07	20
Bicarbonate Alkalinity as CaCO3	130		128		mg/L		0.3	20
Carbonate Alkalinity as CaCO3	4.2		4.51		mg/L		7	20

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 380-145802/3  
Matrix: Water  
Analysis Batch: 145802

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.0		2.0	umhos/cm			04/04/25 17:05	1

Lab Sample ID: LCS 380-145802/5  
Matrix: Water  
Analysis Batch: 145802

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	1000	1000		umhos/cm		100	90 - 110

Lab Sample ID: LCSD 380-145802/17  
Matrix: Water  
Analysis Batch: 145802

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
Specific Conductance	1000	998		umhos/cm		100	90 - 110	1	10

Lab Sample ID: MRL 380-145802/4  
Matrix: Water  
Analysis Batch: 145802

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	2.00	1.90	J	umhos/cm		95	50 - 150

Lab Sample ID: 380-143347-E-1 DU  
Matrix: Water  
Analysis Batch: 145802

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	1000		1000		umhos/cm		0	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 380-145520/1  
Matrix: Water  
Analysis Batch: 145520

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	mg/L			04/04/25 13:07	1

Lab Sample ID: HLCS 380-145520/5  
Matrix: Water  
Analysis Batch: 145520

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

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	700	692		mg/L		99	80 - 114

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: LCS 380-145520/4**  
**Matrix: Water**  
**Analysis Batch: 145520**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	175	170		mg/L		97	80 - 114

**Lab Sample ID: MRL 380-145520/2**  
**Matrix: Water**  
**Analysis Batch: 145520**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	10.0	9.00	J	mg/L		90	50 - 150

**Lab Sample ID: MRL 380-145520/3**  
**Matrix: Water**  
**Analysis Batch: 145520**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	10.0	8.00	J	mg/L		80	50 - 150

**Lab Sample ID: 380-143761-H-1 DU**  
**Matrix: Water**  
**Analysis Batch: 145520**

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	390		400		mg/L		3	10

## Method: SM 4500 F C - Fluoride

**Lab Sample ID: MB 380-145804/44**  
**Matrix: Water**  
**Analysis Batch: 145804**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.050		0.050	mg/L			04/04/25 20:48	1

**Lab Sample ID: MB 380-145804/78**  
**Matrix: Water**  
**Analysis Batch: 145804**

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.050		0.050	mg/L			04/04/25 23:17	1

**Lab Sample ID: LCS 380-145804/46**  
**Matrix: Water**  
**Analysis Batch: 145804**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	1.00	1.05		mg/L		105	90 - 110

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: SM 4500 F C - Fluoride (Continued)

**Lab Sample ID: LCS 380-145804/80**  
**Matrix: Water**  
**Analysis Batch: 145804**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	1.00	1.03		mg/L		103	90 - 110

**Lab Sample ID: LCSD 380-145804/47**  
**Matrix: Water**  
**Analysis Batch: 145804**

**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
Fluoride	1.00	1.05		mg/L		105	90 - 110	1	10

**Lab Sample ID: LCSD 380-145804/81**  
**Matrix: Water**  
**Analysis Batch: 145804**

**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
Fluoride	1.00	1.03		mg/L		103	90 - 110	0	10

**Lab Sample ID: MRL 380-145804/45**  
**Matrix: Water**  
**Analysis Batch: 145804**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.0500	0.0502		mg/L		100	50 - 150

**Lab Sample ID: MRL 380-145804/79**  
**Matrix: Water**  
**Analysis Batch: 145804**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.0500	0.0507		mg/L		101	50 - 150

**Lab Sample ID: 380-143457-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 145804**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.34		1.00	1.37		mg/L		104	80 - 120

**Lab Sample ID: 380-143457-A-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 145804**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.34		1.00	1.37		mg/L		104	80 - 120	0	20

**Lab Sample ID: 380-143457-A-2 MS**  
**Matrix: Water**  
**Analysis Batch: 145804**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.33		1.00	1.36		mg/L		103	80 - 120

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# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: SM 4500 F C - Fluoride

Lab Sample ID: 380-143457-A-2 MSD  
Matrix: Water  
Analysis Batch: 145804

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.33		1.00	1.36		mg/L		102	80 - 120	1	20

## Method: SM 4500 H+ B - pH

Lab Sample ID: MB 380-145799/5  
Matrix: Water  
Analysis Batch: 145799

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.8			SU			04/04/25 17:05	1

Lab Sample ID: LCS 380-145799/6  
Matrix: Water  
Analysis Batch: 145799

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	6.00	6.0		SU		100	98 - 102

Lab Sample ID: LCSD 380-145799/18  
Matrix: Water  
Analysis Batch: 145799

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
pH	6.00	6.0		SU		100	98 - 102	0	2

Lab Sample ID: 380-143347-E-1 DU  
Matrix: Water  
Analysis Batch: 145799

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.4		8.4		SU		0.2	2

## Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 380-145902/3  
Matrix: Water  
Analysis Batch: 145902

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<0.050		0.050	mg/L			04/07/25 17:38	1

Lab Sample ID: LCS 380-145902/5  
Matrix: Water  
Analysis Batch: 145902

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.250	0.226		mg/L		90	90 - 110

# QC Sample Results

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

Job ID: 380-143838-1  
SDG: Quarterly

## Method: SM 4500 S2 D - Sulfide, Total (Continued)

**Lab Sample ID: LCSD 380-145902/6**  
**Matrix: Water**  
**Analysis Batch: 145902**

**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
Sulfide	0.250	0.248		mg/L		99	90 - 110	9	20

**Lab Sample ID: MRL 380-145902/16**  
**Matrix: Water**  
**Analysis Batch: 145902**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.0500	0.0450	J	mg/L		90	50 - 150		

**Lab Sample ID: MRL 380-145902/4**  
**Matrix: Water**  
**Analysis Batch: 145902**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.0500	0.0475	J	mg/L		95	50 - 150		

**Lab Sample ID: 380-143927-J-2 MS**  
**Matrix: Water**  
**Analysis Batch: 145902**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	<0.050	F1	0.250	<0.050	F1	mg/L		9	80 - 120		

**Lab Sample ID: 380-143927-J-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 145902**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	<0.050	F1	0.250	<0.050	F1	mg/L		9	80 - 120	2	20

# QC Association Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

## GC/MS VOA

### Analysis Batch: 145568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 380-145568/13	Lab Control Sample	Total/NA	Water	524.2	
MRL 380-145568/14	Lab Control Sample	Total/NA	Water	524.2	

### Analysis Batch: 145599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	524.2	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	524.2	
380-143838-3	TB: AIEA GULCH WELLS PUMP 1 (331-201-TPC)	Total/NA	Water	524.2	
380-143838-4	TB: AIEA GULCH WELLS PUMP 2 (331-202-TPC)	Total/NA	Water	524.2	
MB 380-145599/5	Method Blank	Total/NA	Water	524.2	
LCS 380-145599/3	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-145599/4	Lab Control Sample Dup	Total/NA	Water	524.2	

### Analysis Batch: 145654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	524.2	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	524.2	
380-143838-3	TB: AIEA GULCH WELLS PUMP 1 (331-201-TPC)	Total/NA	Water	524.2	
380-143838-4	TB: AIEA GULCH WELLS PUMP 2 (331-202-TPC)	Total/NA	Water	524.2	
MB 380-145654/11	Method Blank	Total/NA	Water	524.2	
LCS 380-145654/8	Lab Control Sample	Total/NA	Water	524.2	
LCSD 380-145654/9	Lab Control Sample Dup	Total/NA	Water	524.2	
MRL 380-145654/10	Lab Control Sample	Total/NA	Water	524.2	

### Analysis Batch: 145767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	524.2	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	524.2	

## GC/MS Semi VOA

### Prep Batch: 145789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	
MB 380-145789/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-145789/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-145789/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-143838-1 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	
380-143838-1 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	

### Analysis Batch: 145979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	145789
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	145789
MB 380-145789/21-A	Method Blank	Total/NA	Water	525.2	145789
LCS 380-145789/23-A	Lab Control Sample	Total/NA	Water	525.2	145789
MRL 380-145789/22-A	Lab Control Sample	Total/NA	Water	525.2	145789
380-143838-1 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	145789
380-143838-1 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	525.2	145789

# QC Association Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

## GC/MS Semi VOA

### Prep Batch: 553677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	625.1	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1	
MB 570-553677/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-553677/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-553677/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-143376-A-3-A MS	Matrix Spike	Total/NA	Water	625.1	
380-143376-A-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1	

### Prep Batch: 555182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1	
MB 570-555182/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-555182/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-555182/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	

### Analysis Batch: 556409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-553677/1-A	Method Blank	Total/NA	Water	625.1 SIM	553677
LCS 570-553677/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	553677
LCSD 570-553677/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	553677

### Analysis Batch: 557358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143376-A-3-A MS	Matrix Spike	Total/NA	Water	625.1 SIM	553677
380-143376-A-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	625.1 SIM	553677

### Analysis Batch: 557573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1 SIM	555182
MB 570-555182/1-A	Method Blank	Total/NA	Water	625.1 SIM	555182

### Analysis Batch: 558159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-553677/1-A	Method Blank	Total/NA	Water	625.1	553677

### Analysis Batch: 558249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-555182/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	555182
LCSD 570-555182/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	555182

### Analysis Batch: 558582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	625.1	553677
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625.1	553677

### Analysis Batch: 558586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	625.1 SIM	553677

# QC Association Summary

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

Job ID: 380-143838-1  
 SDG: Quarterly

## GC VOA

### Analysis Batch: 558265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	8015B GRO LL	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B GRO LL	
380-143838-3	TB: AIEA GULCH WELLS PUMP 1 (331-201-TPC	Total/NA	Water	8015B GRO LL	
380-143838-4	TB: AIEA GULCH WELLS PUMP 2 (331-202-TPC	Total/NA	Water	8015B GRO LL	
MB 570-558265/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-558265/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-558265/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-558265/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-144829-C-3 MS	Matrix Spike	Total/NA	Water	8015B GRO LL	
380-144829-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B GRO LL	

## GC Semi VOA

### Prep Batch: 145540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	505	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	505	
MB 380-145540/3-A	Method Blank	Total/NA	Water	505	
LCS 380-145540/28-A	Lab Control Sample	Total/NA	Water	505	
LCS 380-145540/30-A	Lab Control Sample	Total/NA	Water	505	
LCS 380-145540/31-A	Lab Control Sample	Total/NA	Water	505	
LCSD 380-145540/29-A	Lab Control Sample Dup	Total/NA	Water	505	
MRL 380-145540/1-A	Lab Control Sample	Total/NA	Water	505	
MRL 380-145540/2-A	Lab Control Sample	Total/NA	Water	505	
380-143067-AP-1-A MS	Matrix Spike	Total/NA	Water	505	
380-143067-AR-1-A MS	Matrix Spike	Total/NA	Water	505	
380-143769-BU-1-A MS	Matrix Spike	Total/NA	Water	505	
380-143769-BV-1-A MS	Matrix Spike	Total/NA	Water	505	

### Analysis Batch: 145827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	505	145540
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	505	145540
MB 380-145540/3-A	Method Blank	Total/NA	Water	505	145540
LCS 380-145540/28-A	Lab Control Sample	Total/NA	Water	505	145540
LCS 380-145540/30-A	Lab Control Sample	Total/NA	Water	505	145540
LCS 380-145540/31-A	Lab Control Sample	Total/NA	Water	505	145540
LCSD 380-145540/29-A	Lab Control Sample Dup	Total/NA	Water	505	145540
MRL 380-145540/1-A	Lab Control Sample	Total/NA	Water	505	145540
MRL 380-145540/2-A	Lab Control Sample	Total/NA	Water	505	145540
380-143067-AP-1-A MS	Matrix Spike	Total/NA	Water	505	145540
380-143067-AR-1-A MS	Matrix Spike	Total/NA	Water	505	145540
380-143769-BU-1-A MS	Matrix Spike	Total/NA	Water	505	145540
380-143769-BV-1-A MS	Matrix Spike	Total/NA	Water	505	145540

### Prep Batch: 146213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	504.1	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	504.1	
380-143838-3	TB: AIEA GULCH WELLS PUMP 1 (331-201-TPC	Total/NA	Water	504.1	
380-143838-4	TB: AIEA GULCH WELLS PUMP 2 (331-202-TPC	Total/NA	Water	504.1	

# QC Association Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

## GC Semi VOA (Continued)

### Prep Batch: 146213 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MBL 380-146213/4-A	Method Blank	Total/NA	Water	504.1	
LCS 380-146213/29-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-146213/2-A	Lab Control Sample	Total/NA	Water	504.1	
MRL 380-146213/3-A	Lab Control Sample	Total/NA	Water	504.1	
380-144238-DR-1-A MS	Matrix Spike	Total/NA	Water	504.1	
380-144238-DS-1-A DU	Duplicate	Total/NA	Water	504.1	

### Analysis Batch: 146555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	504.1	146213
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	504.1	146213
380-143838-3	TB: AIEA GULCH WELLS PUMP 1 (331-201-TPC	Total/NA	Water	504.1	146213
380-143838-4	TB: AIEA GULCH WELLS PUMP 2 (331-202-TPC	Total/NA	Water	504.1	146213
MBL 380-146213/4-A	Method Blank	Total/NA	Water	504.1	146213
LCS 380-146213/29-A	Lab Control Sample	Total/NA	Water	504.1	146213
MRL 380-146213/2-A	Lab Control Sample	Total/NA	Water	504.1	146213
MRL 380-146213/3-A	Lab Control Sample	Total/NA	Water	504.1	146213
380-144238-DR-1-A MS	Matrix Spike	Total/NA	Water	504.1	146213
380-144238-DS-1-A DU	Duplicate	Total/NA	Water	504.1	146213

### Prep Batch: 554296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	3510C	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	3510C	
MB 570-554296/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-554296/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-554296/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-554296/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-143376-B-3-B MS	Matrix Spike	Total/NA	Water	3510C	
380-143376-B-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

### Analysis Batch: 557182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	8015B	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B	
MB 570-557182/3	Method Blank	Total/NA	Water	8015B	
LCS 570-557182/4	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-557182/5	Lab Control Sample Dup	Total/NA	Water	8015B	
MRL 570-557182/6	Lab Control Sample	Total/NA	Water	8015B	
380-143415-AC-1 MS	Matrix Spike	Total/NA	Water	8015B	
380-143415-AC-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	

### Analysis Batch: 557672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	8015B	554296
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015B	554296
MB 570-554296/1-A	Method Blank	Total/NA	Water	8015B	554296
LCS 570-554296/2-A	Lab Control Sample	Total/NA	Water	8015B	554296
LCSD 570-554296/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	554296
MRL 570-554296/4-A	Lab Control Sample	Total/NA	Water	8015B	554296
380-143376-B-3-B MS	Matrix Spike	Total/NA	Water	8015B	554296

# QC Association Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

## GC Semi VOA (Continued)

### Analysis Batch: 557672 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143376-B-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	554296

## HPLC/IC

### Analysis Batch: 145589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	300.0	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	300.0	
MB 380-145589/39	Method Blank	Total/NA	Water	300.0	
LCS 380-145589/42	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-145589/43	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-145589/40	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-145589/41	Lab Control Sample	Total/NA	Water	300.0	
380-143885-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-143885-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
380-143894-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
380-143894-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 145652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	300.0	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	300.0	
MB 380-145652/4	Method Blank	Total/NA	Water	300.0	
LCS 380-145652/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-145652/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-145652/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 380-145652/6	Lab Control Sample	Total/NA	Water	300.0	
380-143838-1 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	300.0	
380-143838-1 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	300.0	

### Analysis Batch: 146132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	300.0	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	300.0	
MB 380-146132/6	Method Blank	Total/NA	Water	300.0	
LCS 380-146132/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 380-146132/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 380-146132/5	Lab Control Sample	Total/NA	Water	300.0	
380-143829-D-1 MS	Matrix Spike	Total/NA	Water	300.0	
380-143829-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
380-143852-A-2 MS	Matrix Spike	Total/NA	Water	300.0	
380-143852-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 145810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total Recoverable	Drinking Water	200.8	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total Recoverable	Drinking Water	200.8	
MBL 380-145810/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 380-145810/3-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 380-145810/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	

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# QC Association Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

## Metals (Continued)

### Prep Batch: 145810 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LLCS 380-145810/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
380-143673-B-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	
380-143673-B-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	

### Analysis Batch: 145860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	200.7 Rev 4.4	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	200.7 Rev 4.4	
MBL 380-145860/129	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 380-145860/132	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LCSD 380-145860/133	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	
LLCS 380-145860/130	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 380-145860/131	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
380-143952-A-3 MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	
380-143952-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	

### Analysis Batch: 145975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	200.8	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	200.8	
MBL 380-145975/83	Method Blank	Total/NA	Water	200.8	
LCS 380-145975/85	Lab Control Sample	Total/NA	Water	200.8	
LCSD 380-145975/86	Lab Control Sample Dup	Total/NA	Water	200.8	
LLCS 380-145975/84	Lab Control Sample	Total/NA	Water	200.8	
380-143804-F-1 MS	Matrix Spike	Total/NA	Water	200.8	
380-143804-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

### Analysis Batch: 146188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	200.8	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	200.8	
MBL 380-146188/14	Method Blank	Total/NA	Water	200.8	
LCS 380-146188/16	Lab Control Sample	Total/NA	Water	200.8	
LCSD 380-146188/17	Lab Control Sample Dup	Total/NA	Water	200.8	
LLCS 380-146188/15	Lab Control Sample	Total/NA	Water	200.8	
380-143838-1 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	200.8	
380-143838-1 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	200.8	

### Analysis Batch: 146191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total Recoverable	Drinking Water	200.8	145810
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total Recoverable	Drinking Water	200.8	145810
MBL 380-145810/1-A	Method Blank	Total Recoverable	Water	200.8	145810
LCS 380-145810/3-A	Lab Control Sample	Total Recoverable	Water	200.8	145810
LCSD 380-145810/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	145810
LLCS 380-145810/2-A	Lab Control Sample	Total Recoverable	Water	200.8	145810
380-143673-B-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	145810
380-143673-B-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	145810

# QC Association Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

## General Chemistry

### Analysis Batch: 145520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 2540C	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 2540C	
MB 380-145520/1	Method Blank	Total/NA	Water	SM 2540C	
HLCS 380-145520/5	Lab Control Sample	Total/NA	Water	SM 2540C	
LCS 380-145520/4	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-145520/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MRL 380-145520/3	Lab Control Sample	Total/NA	Water	SM 2540C	
380-143761-H-1 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 145796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 2320B	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 2320B	
MB 380-145796/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 380-145796/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 380-145796/19	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
LLCS 380-145796/5	Lab Control Sample	Total/NA	Water	SM 2320B	
MRL 380-145796/3	Lab Control Sample	Total/NA	Water	SM 2320B	
380-143347-E-1 MS	Matrix Spike	Total/NA	Water	SM 2320B	
380-143347-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 2320B	
380-143347-E-1 DU	Duplicate	Total/NA	Water	SM 2320B	

### Analysis Batch: 145799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 4500 H+ B	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 4500 H+ B	
MB 380-145799/5	Method Blank	Total/NA	Water	SM 4500 H+ B	
LCS 380-145799/6	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSD 380-145799/18	Lab Control Sample Dup	Total/NA	Water	SM 4500 H+ B	
380-143347-E-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

### Analysis Batch: 145802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 2510B	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 2510B	
MB 380-145802/3	Method Blank	Total/NA	Water	SM 2510B	
LCS 380-145802/5	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 380-145802/17	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
MRL 380-145802/4	Lab Control Sample	Total/NA	Water	SM 2510B	
380-143347-E-1 DU	Duplicate	Total/NA	Water	SM 2510B	

### Analysis Batch: 145804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 4500 F C	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 4500 F C	
MB 380-145804/44	Method Blank	Total/NA	Water	SM 4500 F C	
MB 380-145804/78	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 380-145804/46	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 380-145804/80	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCSD 380-145804/47	Lab Control Sample Dup	Total/NA	Water	SM 4500 F C	
LCSD 380-145804/81	Lab Control Sample Dup	Total/NA	Water	SM 4500 F C	

# QC Association Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

## General Chemistry (Continued)

### Analysis Batch: 145804 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 380-145804/45	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MRL 380-145804/79	Lab Control Sample	Total/NA	Water	SM 4500 F C	
380-143457-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
380-143457-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
380-143457-A-2 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
380-143457-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 145902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	SM 4500 S2 D	
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	SM 4500 S2 D	
MB 380-145902/3	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 380-145902/5	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 380-145902/6	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
MRL 380-145902/16	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
MRL 380-145902/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
380-143927-J-2 MS	Matrix Spike	Total/NA	Water	SM 4500 S2 D	
380-143927-J-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 S2 D	

# Lab Chronicle

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

Job ID: 380-143838-1  
SDG: Quarterly

**Client Sample ID: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-1**

**Date Collected: 04/02/25 09:49**

**Matrix: Drinking Water**

**Date Received: 04/04/25 10:36**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	145654	WE3W	EA POM	04/06/25 01:02
Total/NA	Analysis	524.2		1	145599	Q6AD	EA POM	04/05/25 08:21
Total/NA	Analysis	524.2		1	145767	C4WQ	EA POM	04/05/25 08:21
Total/NA	Prep	525.2			145789	KRD3	EA POM	04/07/25 08:00
Total/NA	Analysis	525.2		1	145979	Q8LA	EA POM	04/08/25 14:33
Total/NA	Prep	625.1			553677	S8LD	EET CAL 4	04/04/25 09:08
Total/NA	Analysis	625.1		1	558582	PQS1	EET CAL 4	04/16/25 16:25
Total/NA	Prep	625.1			553677	S8LD	EET CAL 4	04/04/25 09:08
Total/NA	Analysis	625.1 SIM		1	558586	PQS1	EET CAL 4	04/16/25 08:29
Total/NA	Analysis	8015B GRO LL		1	558265	BH4T	EET CAL 4	04/15/25 18:31
Total/NA	Prep	504.1			146213	LZ8Q	EA POM	04/09/25 11:50 - 04/09/25 12:45 <sup>1</sup>
Total/NA	Analysis	504.1		1	146555	LZ8Q	EA POM	04/09/25 16:58
Total/NA	Prep	505			145540	DR5R	EA POM	04/04/25 15:40 - 04/04/25 16:50 <sup>1</sup>
Total/NA	Analysis	505		1	145827	DR5R	EA POM	04/05/25 09:22
Total/NA	Prep	3510C			554296	H6FE	EET CAL 4	04/06/25 17:06
Total/NA	Analysis	8015B		1	557672	NR	EET CAL 4	04/14/25 20:33
Total/NA	Analysis	8015B		1	557182	ZE2W	EET CAL 4	04/12/25 18:15
Total/NA	Analysis	300.0		1	145589	BG6L	EA POM	04/04/25 22:17
Total/NA	Analysis	300.0		1	146132	UNJR	EA POM	04/09/25 05:57
Total/NA	Analysis	300.0		2	145652	DXD4	EA POM	04/05/25 13:09
Total/NA	Analysis	200.7 Rev 4.4		1	145860	MF7S	EA POM	04/07/25 13:45
Total Recoverable	Prep	200.8			145810	Z45W	EA POM	04/07/25 10:20
Total Recoverable	Analysis	200.8		1	146191	T8BB	EA POM	04/08/25 14:46
Total/NA	Analysis	200.8		1	146188	T8BB	EA POM	04/08/25 12:58
Total/NA	Analysis	200.8		1	145975	T8BB	EA POM	04/07/25 14:55
Total/NA	Analysis	SM 2320B		1	145796	PK4Q	EA POM	04/04/25 19:43
Total/NA	Analysis	SM 2510B		1	145802	PK4Q	EA POM	04/04/25 19:43
Total/NA	Analysis	SM 2540C		1	145520	UJRF	EA POM	04/04/25 16:23
Total/NA	Analysis	SM 4500 F C		1	145804	PK4Q	EA POM	04/04/25 23:46
Total/NA	Analysis	SM 4500 H+ B		1	145799	PK4Q	EA POM	04/04/25 19:43
Total/NA	Analysis	SM 4500 S2 D		1	145902	MH2L	EA POM	04/07/25 17:38

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

**Lab Sample ID: 380-143838-2**

**Date Collected: 04/02/25 10:24**

**Matrix: Drinking Water**

**Date Received: 04/04/25 10:36**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	145654	WE3W	EA POM	04/06/25 01:24
Total/NA	Analysis	524.2		1	145599	Q6AD	EA POM	04/05/25 08:44
Total/NA	Analysis	524.2		1	145767	C4WQ	EA POM	04/05/25 08:44

Eurofins Eaton Analytical Pomona

# Lab Chronicle

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

Job ID: 380-143838-1  
SDG: Quarterly

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

**Lab Sample ID: 380-143838-2**

**Date Collected: 04/02/25 10:24**

**Matrix: Drinking Water**

**Date Received: 04/04/25 10:36**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			145789	KRD3	EA POM	04/07/25 08:00
Total/NA	Analysis	525.2		1	145979	Q8LA	EA POM	04/08/25 17:15
Total/NA	Prep	625.1			553677	S8LD	EET CAL 4	04/04/25 20:19
Total/NA	Analysis	625.1		1	558582	PQS1	EET CAL 4	04/16/25 16:48
Total/NA	Prep	625.1			555182	UD4J	EET CAL 4	04/08/25 13:10
Total/NA	Analysis	625.1 SIM		1	557573	PQS1	EET CAL 4	04/14/25 17:48
Total/NA	Analysis	8015B GRO LL		1	558265	BH4T	EET CAL 4	04/15/25 18:56
Total/NA	Prep	504.1			146213	LZ8Q	EA POM	04/09/25 11:50 - 04/09/25 12:45 <sup>1</sup>
Total/NA	Analysis	504.1		1	146555	LZ8Q	EA POM	04/09/25 17:20
Total/NA	Prep	505			145540	DR5R	EA POM	04/04/25 15:40 - 04/04/25 16:50 <sup>1</sup>
Total/NA	Analysis	505		1	145827	DR5R	EA POM	04/05/25 09:44
Total/NA	Prep	3510C			554296	H6FE	EET CAL 4	04/06/25 17:06
Total/NA	Analysis	8015B		1	557672	NR	EET CAL 4	04/14/25 20:55
Total/NA	Analysis	8015B		1	557182	ZE2W	EET CAL 4	04/12/25 18:37
Total/NA	Analysis	300.0		1	145589	BG6L	EA POM	04/04/25 22:43
Total/NA	Analysis	300.0		1	146132	UNJR	EA POM	04/09/25 08:35
Total/NA	Analysis	300.0		2	145652	DXD4	EA POM	04/05/25 13:47
Total/NA	Analysis	200.7 Rev 4.4		1	145860	MF7S	EA POM	04/07/25 13:47
Total Recoverable	Prep	200.8			145810	Z45W	EA POM	04/07/25 10:20
Total Recoverable	Analysis	200.8		1	146191	T8BB	EA POM	04/08/25 14:49
Total/NA	Analysis	200.8		1	146188	T8BB	EA POM	04/08/25 13:08
Total/NA	Analysis	200.8		1	145975	T8BB	EA POM	04/07/25 14:57
Total/NA	Analysis	SM 2320B		1	145796	PK4Q	EA POM	04/04/25 19:35
Total/NA	Analysis	SM 2510B		1	145802	PK4Q	EA POM	04/04/25 19:35
Total/NA	Analysis	SM 2540C		1	145520	UJRF	EA POM	04/04/25 16:23
Total/NA	Analysis	SM 4500 F C		1	145804	PK4Q	EA POM	04/04/25 22:54
Total/NA	Analysis	SM 4500 H+ B		1	145799	PK4Q	EA POM	04/04/25 19:35
Total/NA	Analysis	SM 4500 S2 D		1	145902	MH2L	EA POM	04/07/25 17:38

**Client Sample ID: TB: AIEA GULCH WELLS PUMP 1  
(331-201-TP071)**

**Lab Sample ID: 380-143838-3**

**Date Collected: 04/02/25 09:49**

**Matrix: Water**

**Date Received: 04/04/25 10:36**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	145654	WE3W	EA POM	04/06/25 01:47
Total/NA	Analysis	524.2		1	145599	Q6AD	EA POM	04/05/25 09:07
Total/NA	Analysis	8015B GRO LL		1	558265	BH4T	EET CAL 4	04/15/25 16:27
Total/NA	Prep	504.1			146213	LZ8Q	EA POM	04/09/25 11:50 - 04/09/25 12:45 <sup>1</sup>
Total/NA	Analysis	504.1		1	146555	LZ8Q	EA POM	04/09/25 15:33

# Lab Chronicle

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

Job ID: 380-143838-1  
 SDG: Quarterly

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

**Lab Sample ID: 380-143838-4**

**Date Collected: 04/02/25 10:24**

**Matrix: Water**

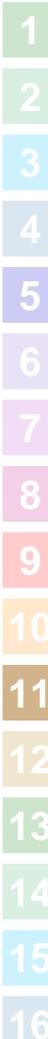
**Date Received: 04/04/25 10:36**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	524.2		1	145654	WE3W	EA POM	04/06/25 02:09
Total/NA	Analysis	524.2		1	145599	Q6AD	EA POM	04/05/25 09:30
Total/NA	Analysis	8015B GRO LL		1	558265	BH4T	EET CAL 4	04/15/25 16:52
Total/NA	Prep	504.1			146213	LZ8Q	EA POM	04/09/25 11:50 - 04/09/25 12:45 <sup>1</sup>
Total/NA	Analysis	504.1		1	146555	LZ8Q	EA POM	04/09/25 15:55

<sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**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: 380-143838-1  
 SDG: Quarterly

## 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	04-10-25

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
505	505	Drinking Water	Polychlorinated biphenyls, Total
524.2		Drinking Water	1,3-Dichloropropene, Total
524.2		Drinking Water	2-Butanone (MEK)
524.2		Drinking Water	Acetone
524.2		Drinking Water	Bromodichloromethane
524.2		Drinking Water	Bromoethane
524.2		Drinking Water	Bromoform
524.2		Drinking Water	Chlorodibromomethane
524.2		Drinking Water	Chloroform (Trichloromethane)
524.2		Drinking Water	m,p Xylenes
524.2		Drinking Water	o-Xylene
524.2		Drinking Water	Tertiary Butyl Alcohol (TBA)
524.2		Water	1,3-Dichloropropene, Total
524.2		Water	2-Butanone (MEK)
524.2		Water	Acetone
524.2		Water	Bromodichloromethane
524.2		Water	Bromoethane
524.2		Water	Bromoform
524.2		Water	Chlorodibromomethane
524.2		Water	Chloroform (Trichloromethane)
524.2		Water	m,p-Xylenes
524.2		Water	o-Xylene
524.2		Water	Tertiary Butyl Alcohol (TBA)
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)

# Accreditation/Certification Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

## Laboratory: Eurofins Eaton Analytical Pomona (Continued)

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

Authority	Program	Identification Number	Expiration Date
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	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
SM 2320B		Drinking Water	Bicarbonate Alkalinity as CaCO <sub>3</sub>
SM 2320B		Drinking Water	Carbonate Alkalinity as CaCO <sub>3</sub>
SM 4500 S2 D		Drinking Water	Sulfide

## 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
A2LA	Dept. of Defense ELAP	7296.01	11-30-26
Arizona	State	AZ0830	11-16-25
Arkansas DEQ	State	88-01672	07-02-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-25
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	07-31-25
Oregon	NELAP	4175	02-02-26
USDA	US Federal Programs	525-23-159-97150	06-08-26
Utah	NELAP	CA00111	02-28-26
Washington	State	C916	10-11-25

# Method Summary

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

Job ID: 380-143838-1  
SDG: Quarterly

Method	Method Description	Protocol	Laboratory
524.2	Total Trihalomethanes	EPA-DW	EA POM
524.2	Volatile Organic Compounds (GC/MS SIM)	EPA-DW	EA POM
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	EA POM
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
504.1	EDB, DBCP and 1,2,3-TCP (GC)	EPA-DW2	EA POM
505	Organochlorine Pesticides/PCBs (GC)	EPA	EA POM
8015B	Diesel Range Organics (DRO) (GC) Low Level	SW846	EET CAL 4
8015B	Nonhalogenated Organic Compounds - Direct Injection (GC)	SW846	EET CAL 4
300.0	Anions, Ion Chromatography	EPA	EA POM
200.7 Rev 4.4	Metals (ICP)	EPA	EA POM
200.8	Mercury (ICP/MS)	EPA	EA POM
200.8	Metals (ICP/MS)	EPA	EA POM
SM 2320B	Alkalinity	SM	EA POM
SM 2510B	Conductivity, Specific Conductance	SM	EA POM
SM 2540C	Solids, Total Dissolved (TDS)	SM	EA POM
SM 4500 F C	Fluoride	SM	EA POM
SM 4500 H+ B	pH	SM	EA POM
SM 4500 S2 D	Sulfide, Total	SM	EA POM
200.8	Preparation, Total Recoverable Metals	EPA	EA POM
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
504.1	Microextraction	EPA-DW	EA POM
505	Extraction, Organohalide Pesticides	EPA	EA POM
525.2	Extraction of Semivolatile Compounds	EPA	EA POM
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4
None	Autocomplete Prep - Metals - No Digestion required	None	EA POM

## 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

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

EPA-DW2 = "Methods For The Determination of Organic Compounds in Drinking Water - Supplement III ", EPA/600/R-95-131, August 1995

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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: 380-143838-1  
SDG: Quarterly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-143838-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	04/02/25 09:49	04/04/25 10:36	HI0000331
380-143838-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	04/02/25 10:24	04/04/25 10:36	HI0000331
380-143838-3	TB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	04/02/25 09:49	04/04/25 10:36	
380-143838-4	TB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	04/02/25 10:24	04/04/25 10:36	

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**Monrovia, CA (Suite 100)**  
 750 Royal Oaks Drive Suite 100  
 Monrovia, CA 91016  
 Phone (626) 386-1100

# Chain of Custody Record



Environment Testing  
 America

<b>Client Information</b> Client Contact: Kirk Iwamoto Phone: +1 808-748-5840 City & County of Honolulu		Lab PM: Arada, Rachelle E-Mail: Rachelle.Arada@et.eurofins.com		Carrier Tracking No(s): State of Origin:		COC No: Page: Page 1 of 2 Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: Δ No PO #: C20525101 exp 05312023 WO #:		Address: 630 South Beretania Street, Chemistry Lab Honolulu State, Zip: HI, 96843 Phone: 808-748-5040 (tel) Email: kiwamoto@hbws.org		Project #: 38001111 SSOW#:		Preservation Codes: A-HCL B-NaOH C-Zn Acetate D-Nitric Acid E-NaHSO4 F-MeOH G-Anchior H-Ascorbic Acid I-Ice J-DI Water K-EDTA L-EDA Other: M-Hexane N-None O-NaNO2 P-Na2O4S Q-Na2SO3 R-Na2S2O3 S-H2SO4 T-TSP Dodecalhydrate U-Acetone V-MCAA W-pH 4-5 Y-Trizma Z-other (specify)	
<b>Sample Identification</b> Aiea Gulch Wells P1 Aiea Gulch Wells P2		Sample Date: 2-Apr-2025 Sample Time: 0949 G Matrix: Water		Sample Type (C=Comp, G=grab): G Matrix: Water		Special Instructions/Note: (631A) 4.5+0.115 48 FedEx: 980268479304	
TB: Aiea Gulch Wells P1 TB: Aiea Gulch Wells P2		Sample Date: 2-Apr-2025 Sample Time: 0949 G Matrix: Water		Sample Type (C=Comp, G=grab): G Matrix: Water		Special Instructions/Note: 380-143838 COC	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological							
Deliverable Requested: I, II, III, IV, Other (specify)							
Empty Kit Relinquished by:							
Date/Time: 07/21/2025 1400 Date/Time: 4/21/2025 1036 Date/Time:							
Relinquished by:							
Custody Seals Intact: Δ Yes Δ No							
Cooler Temperature(s) °C and Other Remarks: (631A) 4.5+0.115 g/L - f-0260							



**Monrovia, CA (Suite 100)**  
 750 Royal Oaks Drive Suite 100  
 Monrovia, CA 91016  
 Phone (626) 386-1100

# Chain of Custody Record



Environment Testing  
 America

<b>Client Information</b>		Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No:
Client Contact: Kirk Iwamoto		E-Mail: Rachelle.Arada@etleurominus.com	State of Origin:	Page: Page 2 of 2
Company: City & County of Honolulu		PWSID:		Job #:
Address: 630 South Beretania Street, Chemistry Lab		Analysis Requested		
City: Honolulu		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - MeOH F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)		
State, Zip: HI, 96843		Total Number of Containers		
Phone: 808-748-5040 (tel)		Form Filled (Yes or No)		
Email: kiwamoto@hbws.org		Field Filled Sample (Yes or No)		
Project Name: RED-HILL		604.1 PREC - Local Method		
Site:		R		
Due Date Requested:		Special Instructions/Note:		
TAT Requested (days):		631A) 48 HOURS - 48		
Compliance Project: Δ No		FedX: 8302-88479304		
PO #: C20525101 exp 05312023				
WO #:				
Project #: 38001111				
SSOW#:				
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)
Aiea Gulch Wells P1				Water
Aiea Gulch Wells P2				Water
TB: Aiea Gulch Wells P1		2-Apr-2025	0949	2
TB: Aiea Gulch Wells P2		2-Apr-2025	1024	2
Possible Hazard Identification		Matrix (W=Water, S=Soil, O=Organic, I=Inorganic, A=Air)		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Preservation Code:		
Deliverable Requested: I, II, III, IV, Other (specify)		Water		
Empty Kit Relinquished by		Date:		
Relinquished by: Bailey		Date: 02/09/2025		
Relinquished by:		Date: 02/09/2025		
Relinquished by:		Date: 02/09/2025		
Custody Seals Intact: Δ Yes Δ No		Method of Shipment: FedX 8602-18-7 9290		
		Date/Time: 4/1/25 1036		
		Date/Time:		
		Date/Time:		
		Cooler Temperature(s) °C and Other Remarks: (B31A) 4.5 +0.0 4.5 del-f-1320		





**Monrovia, CA (Suite 100)**  
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 Monrovia, CA 91016  
 Phone (626) 386-1100

# Chain of Custody Record



Environment Testing  
 Amer-ca

<b>Client Information</b>		Sampler <b>Bailey</b>		Lab P/N: Arada, Rachelle		Carrier Tracking No(s):		COC No:	
Client Contact: Kirk Iwamoto		Phone: +1 8087485840		E-Mail: Rachelle.Arada@et.euronisus.com		State of Origin:		Page: Page 2 of 2	
Company: City & County of Honolulu		PWSID:		Analysis Requested		Job #:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Address: 630 South Beretania Street, Chemistry Lab		Due Date Requested:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers	
City: Honolulu		TAT Requested (days):		504, PREC - Local Method		R		Special Instructions/Note: 631A) 4.8 to 0 - 4.8 FedK-802-80479304	
State Zip: HI, 96843		Compliance Project: Δ No		Matrix (Inorganic, Organic, Other)		Preservation Code:			
Phone: 808-748-5040 (tel)		PO #: C20525101 exp 05312023		Sample Type (C=comp, G=grab)		Water			
Email: kiwamoto@hbws.org		WO #:		Sample Time		Water			
Project Name: RED-HILL		Project #: 38001111		Sample Date		2-Apr-2025		2	
Site:		SSOW#:		Sample Date		2-Apr-2025		2	
Sample Identification		Aiea Gulch Wells P1		Sample Date		2-Apr-2025		2	
Aiea Gulch Wells P2		Aiea Gulch Wells P2		Sample Date		2-Apr-2025		2	
TB: Aiea Gulch Wells P1		TB: Aiea Gulch Wells P2		Sample Date		2-Apr-2025		2	
TB: Aiea Gulch Wells P2		TB: Aiea Gulch Wells P2		Sample Date		2-Apr-2025		2	
Possible Hazard Identification		Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/>		Sample Date		2-Apr-2025		2	
Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by		Date:		2-Apr-2025		2	
Relinquished by Bailey		Date/Time: 02/20/2025		Company: HBWS		1400		2	
Relinquished by		Date/Time:		Company:		1400		2	
Relinquished by		Date/Time:		Company:		1400		2	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Date/Time:		1400		2	



1. Ensure there are no other shipping or tracking labels attached to your package. Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. Fold the printed label at the solid line below. Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. GETTING YOUR SHIPMENT TO UPS

**Customers with a Daily Pickup**

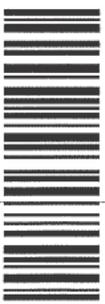
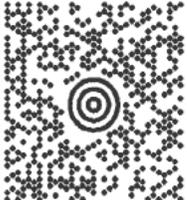
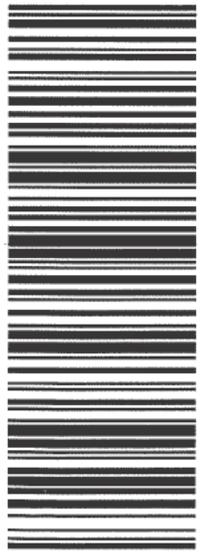
Your driver will pickup your shipment(s) as usual.

**Customers without a Daily Pickup**

Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages. Hand the package to any UPS driver in your area.

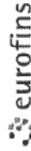
Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

FOLD HERE

<p><b>9 LBS</b> <b>1 OF 1</b> DWT: 16,11,3</p> <p><b>SHIP TO:</b> VANESSA BERRY 503 310 3905 EUROFINS DRINKING WATER TESTING 941 CORPORATE CENTER DRIVE <b>POMONA CA 91768-2642</b></p>	<p>BRIAN MACQUADE 5082929005 BTB - FRAMINGHAM QA LAB 105 PENNSYLVANIA AVE FRAMINGHAM MA 01701</p>
<p><b>CA 917 9-11</b></p> 	
<p><b>UPS NEXT DAY AIR</b> <b>1</b> TRACKING #: 1Z 343 3F2 01 9495 0029</p>	
	
<p>BILLING: P/P</p> <p>Reference # 1: Eugene.Appiah@bluetriton.com</p> <p>™</p> <p><small>CS 25.0.04... WNTNV50 14.0A 03/2025*</small></p>	

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# Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b>		Sampler: N/A	Lab PM: Lopez, Maria	Camera Tracking (No/s): N/A	COC No: 810-54623 1
Client Contact: Shipping/Receiving		Phone: N/A	E-Mail: Maria.Lopez@et.eurofins.com	State of Origin: Hawaii	Page: Page 1 of 2
Company: Eurofins Eaton Analytical		Accreditations Required (See note): State - Hawaii		Job #: 380-143838-1	Job #: 380-143838-1
Address: 941 Corporate Center Drive, Pomona, CA 91768-2642		Due Date Requested: 4/16/2025	Preservation Codes:		
City: Pomona	State, Zip: CA, 91768-2642	TAT Requested (days): N/A	Analysis Requested		
Phone: 626-386-1100(Tel)	Email: N/A	PO #: N/A	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		
Project Name: RED-HILL	Project #: 38001111	WC #: N/A	Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>		
Site: Honolulu BWS Sites	SSOW#: N/A	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)
<b>Sample Identification - Client ID (Lab ID)</b>		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)
AIEA GULCH WELLS PUMP 1 (331-201-TP071) (380-143838-1)		4/2/25	09:49 Hawaiian	G	Water
AIEA GULCH WELLS PUMP 2 (331-202-TP072) (380-143838-2)		4/2/25	10:24 Hawaiian	G	Water
<i>Only Highlighted Samples 04/14/2025</i>					
Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.					
<b>Possible Hazard Identification</b>					
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I, II, III, IV Other (specify) _____ Primary Deliverable Rank. 2					
Empty Kit Relinquished by _____ Date: _____					
Relinquished by: <i>Weather Morgan</i> Date/Time: 04/14/2025 13:16 Company: _____					
Relinquished by: _____ Date/Time: _____ Company: _____					
Relinquished by: _____ Date/Time: _____ Company: _____					
Custody Seals Intact: _____ Custody Seal No _____					
Cooler Temperature(s) °C and Other Remarks: <i>650A 21.740.0 = 21.7°C NO ICE</i>					





# Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-143838-1

SDG Number: Quarterly

**Login Number: 143838**

**List Number: 1**

**Creator: Segura, Ryan**

**List Source: Eurofins Eaton Analytical Pomona**

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



# Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-143838-1

SDG Number: Quarterly

**Login Number: 143838**

**List Number: 2**

**Creator: Ablian, Samantha**

**List Source: Eurofins Calscience**

**List Creation: 04/04/25 05:53 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.	True	
Sample custody seals, if present, are intact.	True	
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	0.6 & 1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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	

