

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 310
Honolulu, Hawaii 96843

Generated 9/30/2025 4:20:15 PM

JOB DESCRIPTION

RED-HILL
Quarterly: Ka'amilo Wells P1 - Resample

JOB NUMBER

380-171948-1

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



Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Generated
9/30/2025 4:20:15 PM



Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	11
Lab Chronicle	12
Certification Summary	13
Method Summary	14
Sample Summary	15
Chain of Custody	16
Receipt Checklists	19

Definitions/Glossary

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

Job ID: 380-171948-1
SDG: Quarterly: Ka'amilo Wells P1 - Resample

Qualifiers

GC Semi VOA

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

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

Job ID: 380-171948-1

Job ID: 380-171948-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-171948-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 9/17/2025 9:33 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C.

Hydrocarbons

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

EPA 8015B_DAI for Kaamilo Wells P1 (380-171948-1) collected on 09/15/25 is a resample for : Ka'amilo Wells P1 (380-162293-1) collected on 07/22/25. (XWB4)

Kaamilo Wells P1 (380-171948-1)

Detection Summary

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

Job ID: 380-171948-1
SDG: Quarterly: Ka'amilo Wells P1 - Resample

Client Sample ID: Kaamilo Wells P1

Lab Sample ID: 380-171948-1

No Detections.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-171948-1
SDG: Quarterly: Ka'amilo Wells P1 - Resample

Client Sample ID: Kaamilo Wells P1

Lab Sample ID: 380-171948-1

Date Collected: 09/15/25 12:30

Matrix: Water

Date Received: 09/17/25 09:33

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			09/24/25 22:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Hexafluoro-2-propanol (Surr)	85		54 - 120		09/24/25 22:28	1

Surrogate Summary

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

Job ID: 380-171948-1
SDG: Quarterly: Ka'amilo Wells P1 - Resample

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)
380-171948-1	Kaamilo Wells P1	85
380-171948-1 MS	Kaamilo Wells P1	99
380-171948-1 MSD	Kaamilo Wells P1	89
LCS 570-630536/5	Lab Control Sample	89
LCSD 570-630536/6	Lab Control Sample Dup	87
MB 570-630536/3	Method Blank	88
MRL 570-630536/4	Lab Control Sample	104

Surrogate Legend

HF2PP = Hexafluoro-2-propanol (Surr)

QC Sample Results

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

Job ID: 380-171948-1
SDG: Quarterly: Ka'amilo Wells P1 - Resample

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

Lab Sample ID: MB 570-630536/3
Matrix: Water
Analysis Batch: 630536

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			09/24/25 20:17	1	
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Hexafluoro-2-propanol (Surr)	88		54 - 120					09/24/25 20:17	1

Lab Sample ID: LCS 570-630536/5
Matrix: Water
Analysis Batch: 630536

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	2.19		mg/L		109	78 - 131
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Hexafluoro-2-propanol (Surr)	89		54 - 120				

Lab Sample ID: LCSD 570-630536/6
Matrix: Water
Analysis Batch: 630536

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
Ethanol	2.00	1.98		mg/L		99	78 - 131	10	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Hexafluoro-2-propanol (Surr)	87		54 - 120						

Lab Sample ID: MRL 570-630536/4
Matrix: Water
Analysis Batch: 630536

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	0.0753	J	mg/L		75	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
Hexafluoro-2-propanol (Surr)	104		54 - 120				

Lab Sample ID: 380-171948-1 MS
Matrix: Water
Analysis Batch: 630536

Client Sample ID: Kaamilo Wells P1
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	2.06		mg/L		103	20 - 173
Surrogate	MS %Recovery	MS Qualifier	Limits						
Hexafluoro-2-propanol (Surr)	99		54 - 120						

QC Sample Results

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

Job ID: 380-171948-1
 SDG: Quarterly: Ka'amilo Wells P1 - Resample

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

Lab Sample ID: 380-171948-1 MSD
Matrix: Water
Analysis Batch: 630536

Client Sample ID: Kaamilo Wells P1
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	2.08		mg/L		104	20 - 173	1	21
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Hexafluoro-2-propanol (Surr)	89		54 - 120								

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

QC Association Summary

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

Job ID: 380-171948-1
SDG: Quarterly: Ka'amilo Wells P1 - Resample

GC Semi VOA

Analysis Batch: 630536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-171948-1	Kaamilo Wells P1	Total/NA	Water	8015B	
MB 570-630536/3	Method Blank	Total/NA	Water	8015B	
LCS 570-630536/5	Lab Control Sample	Total/NA	Water	8015B	
LCSD 570-630536/6	Lab Control Sample Dup	Total/NA	Water	8015B	
MRL 570-630536/4	Lab Control Sample	Total/NA	Water	8015B	
380-171948-1 MS	Kaamilo Wells P1	Total/NA	Water	8015B	
380-171948-1 MSD	Kaamilo Wells P1	Total/NA	Water	8015B	

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

Lab Chronicle

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

Job ID: 380-171948-1
SDG: Quarterly: Ka'amilo Wells P1 - Resample

Client Sample ID: Kaamilo Wells P1

Lab Sample ID: 380-171948-1

Date Collected: 09/15/25 12:30

Matrix: Water

Date Received: 09/17/25 09:33

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Analysis	8015B		1	630536	ZE2W	EET CAL 4	09/24/25 22:28

Laboratory References:

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

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

Accreditation/Certification Summary

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

Job ID: 380-171948-1
 SDG: Quarterly: Ka'amilo Wells P1 - Resample

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
A2LA	ISO/IEC 17025	7296.01	11-30-26
Alaska (UST)	State	25-005	03-02-26
Arizona	State	AZ0830	11-16-25
California	Los Angeles County Sanitation Districts	9257304	07-31-26
California	SCAQMD LAP	17LA0919	11-30-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-26
Nevada	State	CA00111	07-31-26
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

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

Method Summary

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

Job ID: 380-171948-1
SDG: Quarterly: Ka'amilo Wells P1 - Resample

Method	Method Description	Protocol	Laboratory
8015B	Nonhalogenated Organic Compounds - Direct Injection (GC)	SW846	EET CAL 4

Protocol References:

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

Laboratory References:

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

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Sample Summary

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

Job ID: 380-171948-1
SDG: Quarterly: Ka'amilo Wells P1 - Resample

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-171948-1	Kaamilo Wells P1	Water	09/15/25 12:30	09/17/25 09:33	Hawaii

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Monrovia, CA (Suite 100)
 750 Royal Oaks Drive Suite 100
 Monrovia CA 91016
 Phone (626) 386-1100

Chain of Custody Record



Client Information Client Contact: Kiru Iwamoto Phone: +1 8087485840 E-Mail: Maria.Lopez@et.euronisus.com		Lab PM: Lopez, Maria State of Origin:		Carrier Tracking No(s): COC No:	
City & County of Honolulu Address: 630 South Beretania Street, Chemistry Lab City: Honolulu State, Zip: HI, 96843 Phone: 808-748-5040 (tel) Email: kiwamoto@hbws.ctg Project Name: RED-HILL Site:		Due Date Requested: TAT Requested (days): Compliance Project: Δ No PO #: C20525101 exp 05312023 WFO #:		Analysis Requested 2540C_Calcd - Total dissolved Solids (TDS) 200.7, 200.8 5M4500_S2_0 - Sulfide, Total 524.2_Pres_PREC, 524.2_SIM_PREC 525.2_PREC 525plus PLUS TCS 300_OF_28D_B_300_OF_28D_PREC, 300_OF_48H_PREC, 4500_F_C 245 1 - Local Method 8015B_GRO_LL (MOD) GRO 8015B_DRO_LL_CS - HNL Ranges C10-C24/C24-C36/C8-C18 8015B_DAI - Ethanol 625 1, 625.1 SIM Total Number of Containers	
Sample Identification Kaamilo Wells P1 Sample Date: 15-Sep-2025 Sample Time: 1230 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=organic, G=Gas, A=Air): Water Preservation Code:		Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): 504 1_PREC, 505_LL_PREC 2320B, 2510B, 5M4500_H+ 200.7, 200.8 2540C_Calcd - Total dissolved Solids (TDS) 5M4500_S2_0 - Sulfide, Total 524.2_Pres_PREC, 524.2_SIM_PREC 525.2_PREC 525plus PLUS TCS 300_OF_28D_B_300_OF_28D_PREC, 300_OF_48H_PREC, 4500_F_C 245 1 - Local Method 8015B_GRO_LL (MOD) GRO 8015B_DRO_LL_CS - HNL Ranges C10-C24/C24-C36/C8-C18 8015B_DAI - Ethanol 625 1, 625.1 SIM Total Number of Containers		Special Instructions/Note: re-sample	
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: 16 Sep 2025 1400 Company: HBWS Date/Time: 16 Sep 2025 1400 Company: HBWS Date/Time: 16 Sep 2025 1400 Company: HBWS					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements					
Method of Shipment: FEDEX 88442499 1020 Date/Time: 9/17/25 9:33 Company: EIA Date/Time: 9/17/25 9:33 Company: EIA Date/Time: 9/17/25 9:33 Company: EIA					
Cooler Temperature(s) °C and Other Remarks: (6311) 41+00 41 761-frozen Ver: 01/16/2019					



ORIGIN ID HIKA (808) 748-5840
BWS CHEM LAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERTANIA ST
CHEMICAL LABORATORY
HONOLULU HI 96843
UNITED STATES US

SHIP DATE: 16SEP25
ACTWGT 58.00 LB
CAD 258050552/INET4535
BILL RECIPIENT

TO **EUROFINS RECEIVING DEPARTMENT**
EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR

POMONA CA 91768

REF: (626) 386-1100

58GJ3/780E/59F2

DEPT.



1 of 6

TRK# 8844 2499 1080

MASTER

WM ONTA

91768

CA-US ONT

WED - 17 SEP 10:30A
PRIORITY OVERNIGHT



After printing this label
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1 Fold the printed page along the horizontal line
2 Place label in shipping pouch and affix it to your shipment

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-171948-1

SDG Number: Quarterly: Ka'amilo Wells P1 - Resample

Login Number: 171948

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: 380-171948-1
SDG Number: Quarterly: Ka'amilo Wells P1 - Resample

Login Number: 171948

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 09/18/25 01:00 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

