

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site H

JOB NUMBER

380-139927-1

Eurofins Eaton Analytical Pomona

Job Notes

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

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

Compliance Statement

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

Authorization



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Definitions/Glossary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-139927-1
SDG: Site H

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: INTERA - Red-Hill-Incident

Job ID: 380-139927-1

Job ID: 380-139927-1

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Job Narrative 380-139927-1

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 sample was received on 3/11/2025 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 4.4°C.

Receipt Exceptions

One container received filled, one container received less than half-filled. MS/MSD not logged due to insufficient volume. Site H (380-139927-1)

Diesel Range Organics

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

Detection Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-139927-1
SDG: Site H

Client Sample ID: Site H

Lab Sample ID: 380-139927-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (C10-C24) - RA	150		34	ug/L	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36] - RA	110		34	ug/L	1		8015B	Total/NA
C8-C18 - RA	180		34	ug/L	1		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-139927-1
SDG: Site H

Client Sample ID: Site H

Date Collected: 03/10/25 13:50

Date Received: 03/11/25 09:33

Lab Sample ID: 380-139927-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	150		34	ug/L		03/17/25 16:28	03/23/25 15:04	1
Motor Oil Range Organics [C24-C36]	110		34	ug/L		03/17/25 16:28	03/23/25 15:04	1
C8-C18	180		34	ug/L		03/17/25 16:28	03/23/25 15:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	88		60 - 130			03/17/25 16:28	03/23/25 15:04	1

Surrogate Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-139927-1
SDG: Site H

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)										
380-139927-1 - RA	Site H	88										
380-140202-B-3-A MS	Matrix Spike	104										
380-140202-B-3-B MSD	Matrix Spike Duplicate	114										
LCS 570-546027/2-A	Lab Control Sample	116										
LCSD 570-546027/3-A	Lab Control Sample Dup	117										
MB 570-546027/1-A	Method Blank	109										
MRL 570-546027/4-A	Lab Control Sample	101										
Surrogate Legend												
OTCSN = n-Octacosane (Surr)												

QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-139927-1
SDG: Site H

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

Lab Sample ID: MB 570-546027/1-A

Matrix: Water

Analysis Batch: 548349

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 546027

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25	ug/L		03/17/25 16:28	03/22/25 22:58	1
Motor Oil Range Organics [C24-C36]	<25		25	ug/L		03/17/25 16:28	03/22/25 22:58	1
C8-C18	<25		25	ug/L		03/17/25 16:28	03/22/25 22:58	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	109		60 - 130			03/17/25 16:28	03/22/25 22:58	1

Lab Sample ID: LCS 570-546027/2-A

Matrix: Water

Analysis Batch: 548349

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 546027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	1600	1570		ug/L		98	56 - 127
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
n-Octacosane (Surr)	116		60 - 130				

Lab Sample ID: LCSD 570-546027/3-A

Matrix: Water

Analysis Batch: 548349

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 546027

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	1600	1500		ug/L		94	56 - 127	4	23
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
n-Octacosane (Surr)	117		60 - 130						

Lab Sample ID: MRL 570-546027/4-A

Matrix: Water

Analysis Batch: 548416

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 546027

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	0.0200	0.0288		mg/L		144	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
n-Octacosane (Surr)	101		60 - 130				

Lab Sample ID: 380-140202-B-3-A MS

Matrix: Water

Analysis Batch: 548349

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 546027

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	<26		1710	1560		ug/L		91	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
n-Octacosane (Surr)	104		60 - 130						

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QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-139927-1
SDG: Site H

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

Lab Sample ID: 380-140202-B-3-B MSD

Matrix: Water

Analysis Batch: 548349

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 546027

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1670	1670		ug/L		100	70 - 130	7	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
n-Octacosane (Surr)	114		60 - 130

QC Association Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-139927-1
SDG: Site H

GC Semi VOA

Prep Batch: 546027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-139927-1 - RA	Site H	Total/NA	Water	3510C	
MB 570-546027/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-546027/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-546027/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-546027/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-140202-B-3-A MS	Matrix Spike	Total/NA	Water	3510C	
380-140202-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 548349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-546027/1-A	Method Blank	Total/NA	Water	8015B	546027
LCS 570-546027/2-A	Lab Control Sample	Total/NA	Water	8015B	546027
LCSD 570-546027/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	546027
380-140202-B-3-A MS	Matrix Spike	Total/NA	Water	8015B	546027
380-140202-B-3-B MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	546027

Analysis Batch: 548416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-139927-1 - RA	Site H	Total/NA	Water	8015B	546027
MRL 570-546027/4-A	Lab Control Sample	Total/NA	Water	8015B	546027

Lab Chronicle

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-139927-1
SDG: Site H

Client Sample ID: Site H
Date Collected: 03/10/25 13:50
Date Received: 03/11/25 09:33

Lab Sample ID: 380-139927-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C	RA		546027	TVD6	EET CAL 4	03/17/25 16:28
Total/NA	Analysis	8015B	RA	1	548416	H6FE	EET CAL 4	03/23/25 15:04

Laboratory References:
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: INTERA - Red-Hill-Incident

Job ID: 380-139927-1
SDG: Site H

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	CA001112025-8	02-28-26
Washington	State	C916	10-11-25

Method Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-139927-1
SDG: Site H

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC) Low Level	SW846	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	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

Sample Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-139927-1
SDG: Site H

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-139927-1	Site H	Water	03/10/25 13:50	03/11/25 09:33

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

Environment Testing

[illegible]



380-139927 Chain of Custody

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-139927-1

SDG Number: Site H

Login Number: 139927

List Number: 1

Creator: Gerfen, Chris

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.	False	Refer to Job Narrative for details.
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").	N/A	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-139927-1

SDG Number: Site H

Login Number: 139927

List Number: 2

Creator: Khana, Piyush

List Source: Eurofins Calscience

List Creation: 03/12/25 01:31 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	2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	