

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-77794-1

Client Project/Site: RED-HILL-INCIDENT (Aliamanu)

For:

Eurofins Eaton Analytical
750 Royal Oaks Drive
Monrovia, California 91016

Attn: Jaclyn Contreras



Authorized for release by:
12/9/2021 6:47:49 PM

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Eurofins Eaton Analytical
Project/Site: RED-HILL-INCIDENT (Aliamanu)

Job ID: 570-77794-1

Glossary

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

Case Narrative

Client: Eurofins Eaton Analytical
Project/Site: RED-HILL-INCIDENT (Aliamanu)

Job ID: 570-77794-1

Job ID: 570-77794-1

Laboratory: Eurofins Calscience LLC

Narrative

**Job Narrative
570-77794-1**

Comments

No additional comments.

Receipt

The samples were received on 12/7/2021 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.9° C.

GC Semi VOA

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

Organic Prep

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

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Detection Summary

Client: Eurofins Eaton Analytical
Project/Site: RED-HILL-INCIDENT (Aliamanu)

Job ID: 570-77794-1

Client Sample ID: Aliamanu Child Development Center

Lab Sample ID: 570-77794-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
C6-C44	60		49	ug/L	1		8015B	Total/NA
Oil Range Organics (C28-C40)	52		49	ug/L	1		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience LLC



Client Sample Results

Client: Eurofins Eaton Analytical
 Project/Site: RED-HILL-INCIDENT (Aliamanu)

Job ID: 570-77794-1

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

Client Sample ID: Aliamanu Child Development Center

Lab Sample ID: 570-77794-1

Date Collected: 12/06/21 11:00

Matrix: Water

Date Received: 12/07/21 10:20

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C7 as C7	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C8 as C8	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C9-C10	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C11-C12	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C13-C14	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C15-C16	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C17-C18	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C19-C20	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C21-C22	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C23-C24	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C25-C28	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C29-C32	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C33-C36	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C37-C40	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C41-C44	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
C6-C44	60		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
Gasoline Range Organics [C6 - C10]	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
Diesel Range Organics [C10-C28]	ND		49	ug/L		12/08/21 09:47	12/08/21 17:28	1
Oil Range Organics (C28-C40)	52		49	ug/L		12/08/21 09:47	12/08/21 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	108		53 - 151	12/08/21 09:47	12/08/21 17:28	1

Surrogate Summary

Client: Eurofins Eaton Analytical
Project/Site: RED-HILL-INCIDENT (Aliamanu)

Job ID: 570-77794-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (53-151)
570-77794-1	Aliamanu Child Development Ce	108
LCS 570-199439/2-A	Lab Control Sample	97
LCSD 570-199439/3-A	Lab Control Sample Dup	94
MB 570-199439/1-A	Method Blank	94

Surrogate Legend

OTCSN = n-Octacosane (Surr)

QC Sample Results

Client: Eurofins Eaton Analytical
 Project/Site: RED-HILL-INCIDENT (Aliamanu)

Job ID: 570-77794-1

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

Lab Sample ID: MB 570-199439/1-A
Matrix: Water
Analysis Batch: 199489

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 199439

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C7 as C7	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C8 as C8	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C9-C10	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C11-C12	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C13-C14	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C15-C16	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C17-C18	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C19-C20	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C21-C22	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C23-C24	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C25-C28	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C29-C32	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C33-C36	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C37-C40	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C41-C44	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
C6-C44	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
Gasoline Range Organics [C6 - C10]	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
Diesel Range Organics [C10-C28]	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1
Oil Range Organics (C28-C40)	ND		50	ug/L	-	12/08/21 09:47	12/08/21 13:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	94		53 - 151	12/08/21 09:47	12/08/21 13:16	1

Lab Sample ID: LCS 570-199439/2-A
Matrix: Water
Analysis Batch: 199489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 199439

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	4000	4632		ug/L	-	116	70 - 131

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>n</i> -Octacosane (Surr)	97		53 - 151

Lab Sample ID: LCSD 570-199439/3-A
Matrix: Water
Analysis Batch: 199489

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 199439

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	4000	4573		ug/L	-	114	70 - 131	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>n</i> -Octacosane (Surr)	94		53 - 151

QC Association Summary

Client: Eurofins Eaton Analytical
Project/Site: RED-HILL-INCIDENT (Aliamanu)

Job ID: 570-77794-1

GC Semi VOA

Prep Batch: 199439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-77794-1	Aliamanu Child Development Center	Total/NA	Water	3510C	
MB 570-199439/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-199439/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-199439/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 199489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-77794-1	Aliamanu Child Development Center	Total/NA	Water	8015B	199439
MB 570-199439/1-A	Method Blank	Total/NA	Water	8015B	199439
LCS 570-199439/2-A	Lab Control Sample	Total/NA	Water	8015B	199439
LCSD 570-199439/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	199439

Lab Chronicle

Client: Eurofins Eaton Analytical
Project/Site: RED-HILL-INCIDENT (Aliamanu)

Job ID: 570-77794-1

Client Sample ID: Aliamanu Child Development Center

Lab Sample ID: 570-77794-1

Date Collected: 12/06/21 11:00

Matrix: Water

Date Received: 12/07/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			252.7 mL	2.5 mL	199439	12/08/21 09:47	UFLU	ECL 1
Total/NA	Analysis	8015B		1			199489	12/08/21 17:28	N5Y3	ECL 1

Instrument ID: GC48

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494



Accreditation/Certification Summary

Client: Eurofins Eaton Analytical
Project/Site: RED-HILL-INCIDENT (Aliamanu)

Job ID: 570-77794-1

Laboratory: Eurofins Calscience LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2944	09-30-22
Oregon	NELAP	CA300001	01-30-22

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Method Summary

Client: Eurofins Eaton Analytical
Project/Site: RED-HILL-INCIDENT (Aliamanu)

Job ID: 570-77794-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1

Protocol References:

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494



Sample Summary

Client: Eurofins Eaton Analytical
Project/Site: RED-HILL-INCIDENT (Aliamanu)

Job ID: 570-77794-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-77794-1	Aliamanu Child Development Center	Water	12/06/21 11:00	12/07/21 10:20

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Login Sample Receipt Checklist

Client: Eurofins Eaton Analytical

Job Number: 570-77794-1

Login Number: 77794

List Number: 1

Creator: Vitente, Precy

List Source: Eurofins Calscience LLC

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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	
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?	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	
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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	