

ANALYTICAL REPORT

Eurofins Eaton Monrovia
750 Royal Oaks Drive
Suite 100
Monrovia, CA 91016
Tel: (626)386-1100

Laboratory Job ID: 380-18330-1

Client Project/Site: INTERA - Red-Hill-Incident

For:

City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 308
Honolulu, Hawaii 96843

Attn: Mr. Erwin Kawata



Authorized for release by:

9/3/2022 5:07:50 PM

Debbie Frank, Project Manager
(626)386-1100

Debbie.Frank@et.eurofinsus.com

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results through



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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.

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)



Debbie Frank
Project Manager
9/3/2022 5:07:50 PM





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Definitions/Glossary

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

Job ID: 380-18330-1

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

Job ID: 380-18330-1

Job ID: 380-18330-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative 380-18330-1

Comments

No additional comments.

Receipt

The samples were received on 8/17/2022 10:40 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 4.8° C.

Subcontract non-Sister

See attached subcontract report.

Subcontract Work

Methods 8015 Gas (purgeable), TPH Diesel and Motor Oil: These methods were subcontracted to Asset Laboratories. The subcontract laboratory certifications are different from that of the facility issuing the final report.

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Detection Summary

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

Job ID: 380-18330-1

Client Sample ID: N052158-01 BWS2253-j1-AQ

Lab Sample ID: 380-18330-1

No Detections.

Client Sample ID: N052158-02 BWS2253-J1-TB

Lab Sample ID: 380-18330-2

No Detections.

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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: 380-18330-1

Client Sample ID: N052158-01 BWS2253-j1-AQ

Lab Sample ID: 380-18330-1

Date Collected: 08/16/22 10:00

Matrix: Water

Date Received: 08/17/22 10:40

Method: 8015 Gas (purgeable) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	ND		0.050		mg/L		08/18/22 00:00	08/18/22 11:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Chlorobenzene - d5	99.2		69 - 130	08/18/22 00:00	08/18/22 11:19	1

Method: TPH Diesel and Motor Oil - 8015 - TPH DRO/ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C28)	ND		50		ug/L		08/23/22 00:00	08/23/22 04:31	1
Oil Range Organics (C28-C40)	ND		50		ug/L		08/23/22 00:00	08/23/22 04:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	83.1		33 - 138	08/23/22 00:00	08/23/22 04:31	1

Client Sample ID: N052158-02 BWS2253-J1-TB

Lab Sample ID: 380-18330-2

Date Collected: 08/16/22 10:00

Matrix: Water

Date Received: 08/17/22 10:40

Method: 8015 Gas (purgeable) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	ND		0.050		mg/L		08/18/22 00:00	08/18/22 10:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Chlorobenzene - d5	98.9		69 - 130	08/18/22 00:00	08/18/22 10:48	1

Surrogate Summary

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

Job ID: 380-18330-1

Method: 8015 Gas (purgeable) - SW846 8015B Gasoline Range Organics

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	robenzene (69-130)
380-18330-1	N052158-01 BWS2253-j1-AQ	99.2
380-18330-2	N052158-02 BWS2253-J1-TB	98.9
E220818LCS	Lab Control Sample	103
E220818MB	MBLK	98.2
N052158-001BMS	BWS2253-J1-AQ (380-18330-1) MS	98.3
N052158-001BMSD	BWS2253-J1-AQ (380-18330-1) MSD	100

Surrogate Legend

Chlorobenzene - d5 = Chlorobenzene - d5

Method: TPH Diesel and Motor Oil - 8015 - TPH DRO/ORO

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPH (33-138)
380-18330-1	N052158-01 BWS2253-j1-AQ	83.1
LCS-94287	Lab Control Sample	87.7
MB-94287	MBLK	88.2
N052158-001A-MS	BWS2253-J1-AQ (380-18330-1) MS	95.2
N052158-001A-MSD	BWS2253-J1-AQ (380-18330-1) MSD	93.0

Surrogate Legend

TPH = p-Terphenyl

QC Sample Results

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

Job ID: 380-18330-1

Method: 8015 Gas (purgeable) - SW846 8015B Gasoline Range Organics

Lab Sample ID: E220818LCS
 Matrix: Water
 Analysis Batch: E22VW094

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: E22VW094_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
GRO	1.000	1.088		mg/L		109	69 - 143
Surrogate	%Recovery	LCS Qualifier	Limits				
Chlorobenzene - d5	103		69 - 130				

Lab Sample ID: N052158-001BMS
 Matrix: Water
 Analysis Batch: E22VW094

Client Sample ID: BWS2253-J1-AQ (380-18330-1) MS
 Prep Type: Total/NA
 Prep Batch: E22VW094_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
GRO	0		1.000	0.983		mg/L		98.3	49 - 156
Surrogate	%Recovery	MS Qualifier	Limits						
Chlorobenzene - d5	98.3		69 - 130						

Lab Sample ID: N052158-001BMSD
 Matrix: Water
 Analysis Batch: E22VW094

Client Sample ID: BWS2253-J1-AQ (380-18330-1) MSD
 Prep Type: Total/NA
 Prep Batch: E22VW094_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
GRO	0		1.000	1.026		mg/L		103	49 - 156	4.28	20
Surrogate	%Recovery	MSD Qualifier	Limits								
Chlorobenzene - d5	100		69 - 130								

Method: TPH Diesel and Motor Oil - 8015 - TPH DRO/ORO

Lab Sample ID: LCS-94287
 Matrix: Water
 Analysis Batch: 94287

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 94287_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (C10-C28)	1000	568.163		ug/L		56.8	48 - 120
Surrogate	%Recovery	LCS Qualifier	Limits				
p-Terphenyl	87.7		33 - 138				

Lab Sample ID: N052158-001A-MS
 Matrix: Water
 Analysis Batch: 94287

Client Sample ID: BWS2253-J1-AQ (380-18330-1) MS
 Prep Type: Total/NA
 Prep Batch: 94287_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (C10-C28)	0		1000	682.367		ug/L		68.2	48 - 120
Surrogate	%Recovery	MS Qualifier	Limits						
p-Terphenyl	95.2		33 - 138						

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-18330-1

Method: TPH Diesel and Motor Oil - 8015 - TPH DRO/ORO

Lab Sample ID: N052158-001A-MSD
Matrix: Water
Analysis Batch: 94287

Client Sample ID: BWS2253-J1-AQ (380-18330-1) MSD
Prep Type: Total/NA
Prep Batch: 94287_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics (C10-C28)	0		1000	632.854		ug/L		63.3	48 - 120	7.53	20
Surrogate		MSD %Recovery	MSD Qualifier								Limits
<i>p</i> -Terphenyl		93.0									33 - 138

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QC Association Summary

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

Job ID: 380-18330-1

Subcontract

Analysis Batch: 94287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-18330-1	N052158-01 BWS2253-j1-AQ	Total/NA	Water	TPH Diesel and Motor Oil	94287_P
LCS-94287	Lab Control Sample	Total/NA	Water	TPH Diesel and Motor Oil	94287_P
N052158-001A-MS	BWS2253-J1-AQ (380-18330-1) MS	Total/NA	Water	TPH Diesel and Motor Oil	94287_P
N052158-001A-MSD	BWS2253-J1-AQ (380-18330-1) MSD	Total/NA	Water	TPH Diesel and Motor Oil	94287_P

Prep Batch: 94287_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-18330-1	N052158-01 BWS2253-j1-AQ	Total/NA	Water	SW3510C	
LCS-94287	Lab Control Sample	Total/NA	Water	SW3510C	
N052158-001A-MS	BWS2253-J1-AQ (380-18330-1) MS	Total/NA	Water	SW3510C	
N052158-001A-MSD	BWS2253-J1-AQ (380-18330-1) MSD	Total/NA	Water	SW3510C	

Analysis Batch: E22VW094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-18330-1	N052158-01 BWS2253-j1-AQ	Total/NA	Water	8015 Gas (purgeable)	E22VW094_P
380-18330-2	N052158-02 BWS2253-J1-TB	Total/NA	Water	8015 Gas (purgeable)	E22VW094_P
E220818LCS	Lab Control Sample	Total/NA	Water	8015 Gas (purgeable)	E22VW094_P
N052158-001BMS	BWS2253-J1-AQ (380-18330-1) MS	Total/NA	Water	8015 Gas (purgeable)	E22VW094_P
N052158-001BMSD	BWS2253-J1-AQ (380-18330-1) MSD	Total/NA	Water	8015 Gas (purgeable)	E22VW094_P

Prep Batch: E22VW094_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-18330-1	N052158-01 BWS2253-j1-AQ	Total/NA	Water	SW5030	
380-18330-2	N052158-02 BWS2253-J1-TB	Total/NA	Water	SW5030	
E220818LCS	Lab Control Sample	Total/NA	Water	SW5030	
N052158-001BMS	BWS2253-J1-AQ (380-18330-1) MS	Total/NA	Water	SW5030	
N052158-001BMSD	BWS2253-J1-AQ (380-18330-1) MSD	Total/NA	Water	SW5030	

Lab Chronicle

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

Job ID: 380-18330-1

Client Sample ID: N052158-01 BWS2253-j1-AQ

Lab Sample ID: 380-18330-1

Date Collected: 08/16/22 10:00

Matrix: Water

Date Received: 08/17/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SW5030		1	E22VW094_P			08/18/22 00:00
Total/NA	Analysis	8015 Gas (purgeable)		1	E22VW094	CA		08/18/22 11:19
Total/NA	Prep	SW3510C		1	94287_P			08/23/22 00:00
Total/NA	Analysis	TPH Diesel and Motor Oil		1	94287	MCC		08/23/22 04:31

Client Sample ID: N052158-02 BWS2253-J1-TB

Lab Sample ID: 380-18330-2

Date Collected: 08/16/22 10:00

Matrix: Water

Date Received: 08/17/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SW5030		1	E22VW094_P			08/18/22 00:00
Total/NA	Analysis	8015 Gas (purgeable)		1	E22VW094	CA		08/18/22 10:48

Laboratory References:

= Las Vegas, NV, 3151 W. Post Road, Las Vegas, NV 89118

Method Summary

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

Job ID: 380-18330-1

Method	Method Description	Protocol	Laboratory
8015	8015 - TPH DRO/ORO	EPA	
8015B	SW846 8015B Gasoline Range Organics	SW846	

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

= Las Vegas, NV, 3151 W. Post Road, Las Vegas, NV 89118



Sample Summary

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

Job ID: 380-18330-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-18330-1	N052158-01 BWS2253-j1-AQ	Water	08/16/22 10:00	08/17/22 10:40
380-18330-2	N052158-02 BWS2253-J1-TB	Water	08/16/22 10:00	08/17/22 10:40

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August 25, 2022

Debbie Frank
Eurofins
750 Royal Oaks Drive Suite 100
Monrovia, CA 91016-3629

TEL: (626) 386-1158

FAX:

Workorder No.: N052158

RE: INTERA-Red-Hill-Incident, 38000861

Attention: Debbie Frank

Enclosed are the results for sample(s) received on August 17, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

 for

Nancy Sibucan
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.



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ASSET Laboratories

Date: 25-Aug-22

CLIENT: Eurofins
Project: INTERA-Red-Hill-Incident, 38000861
Lab Order: N052158

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.



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CLIENT: Eurofins
Project: INTERA-Red-Hill-Incident, 38000861
Lab Order: N052158
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N052158-001A	BWS2253-J1-AQ (380-18330-1)	Raw Groundwater	8/16/2022 10:00:00 AM	8/17/2022	8/25/2022
N052158-001B	BWS2253-J1-AQ (380-18330-1)	Raw Groundwater	8/16/2022 10:00:00 AM	8/17/2022	8/25/2022
N052158-002A	BWS2253-J1-TB (380-18330-2)	Bottled Water	8/16/2022 10:00:00 AM	8/17/2022	8/25/2022



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ANALYTICAL RESULTS

Print Date: 25-Aug-22

CLIENT: Eurofins **Client Sample ID:** BWS2253-J1-AQ (380-18330-1)
Lab Order: N052158 **Collection Date:** 8/16/2022 10:00:00 AM
Project: INTERA-Red-Hill-Incident, 38000861 **Matrix:** RAW GROUNDWATER
Lab ID: N052158-001

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
TPH CARBON CHAIN EPA 8015						
	EPA 3510C		EPA 8015B(M)			
RunID: NV00922-GC1_220822C	QC Batch: 94287				PrepDate: 8/17/2022	Analyst: MCC
Diesel Range Organics (C10-C28)	ND	50		ug/L	1	8/23/2022 04:31 AM
Oil Range Organics (C28-C40)	ND	50		ug/L	1	8/23/2022 04:31 AM
Surr: p-Terphenyl	83.1	33-138		%REC	1	8/23/2022 04:31 AM
GASOLINE RANGE ORGANICS BY GC/FID						
			EPA 8015B			
RunID: NV00922-GC4_220818A	QC Batch: E22VW094				PrepDate:	Analyst: CA
GRO	ND	0.050		mg/L	1	8/18/2022 11:19 AM
Surr: Chlorobenzene - d5	99.2	69-130		%REC	1	8/18/2022 11:19 AM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified
DO Surrogate Diluted Out



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ASSET Laboratories

ANALYTICAL RESULTS

Print Date: 25-Aug-22

CLIENT: Eurofins	Client Sample ID: BWS2253-J1-TB (380-18330-2)
Lab Order: N052158	Collection Date: 8/16/2022 10:00:00 AM
Project: INTERA-Red-Hill-Incident, 38000861	Matrix: BOTTLED WATER
Lab ID: N052158-002	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID						
EPA 8015B						
RunID: NV00922-GC4_220818A	QC Batch: E22VW094				PrepDate:	Analyst: CA
GRO	ND	0.050		mg/L	1	8/18/2022 10:48 AM
Surr: Chlorobenzene - d5	98.9	69-130		%REC	1	8/18/2022 10:48 AM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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"Serving Clients with Passion and Professionalism"

CLIENT: Eurofins
Work Order: N052158
Project: INTERA-Red-Hill-Incident, 38000861

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015DM_W_CC

Sample ID: MB-94287	SampType: MBLK	TestCode: 8015DM_W_C	Units: ug/L	Prep Date: 8/17/2022	RunNo: 165075						
Client ID: PBW	Batch ID: 94287	TestNo: EPA 8015B(M EPA 3510C)		Analysis Date: 8/23/2022	SeqNo: 4796939						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics (C10-C28)	ND	50									
Oil Range Organics (C28-C40)	ND	50									
Surr: p-Terphenyl	70.539		80.00		88.2	33	138				

Sample ID: LCS-94287	SampType: LCS	TestCode: 8015DM_W_C	Units: ug/L	Prep Date: 8/17/2022	RunNo: 165075						
Client ID: LCSW	Batch ID: 94287	TestNo: EPA 8015B(M EPA 3510C)		Analysis Date: 8/23/2022	SeqNo: 4796940						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics (C10-C28)	568.163	50	1000	0	56.8	48	120				
Surr: p-Terphenyl	70.133		80.00		87.7	33	138				

Sample ID: N052158-001 A-MS	SampType: MS	TestCode: 8015DM_W_C	Units: ug/L	Prep Date: 8/17/2022	RunNo: 165075						
Client ID: ZZZZZ	Batch ID: 94287	TestNo: EPA 8015B(M EPA 3510C)		Analysis Date: 8/23/2022	SeqNo: 4796942						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics (C10-C28)	682.367	50	1000	0	68.2	48	120				
Surr: p-Terphenyl	76.198		80.00		95.2	33	138				

Sample ID: N052158-001 A-MSD	SampType: MSD	TestCode: 8015DM_W_C	Units: ug/L	Prep Date: 8/17/2022	RunNo: 165075						
Client ID: ZZZZZ	Batch ID: 94287	TestNo: EPA 8015B(M EPA 3510C)		Analysis Date: 8/23/2022	SeqNo: 4796943						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics (C10-C28)	632.854	50	1000	0	63.3	48	120	682.4	7.53	20	
Surr: p-Terphenyl	74.438		80.00		93.0	33	138		0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



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 ELAP Cert 2921
 EPA ID CA01638

NEVADA | P:702.307.2659 F:702.307.2691
 3151 W. Post Rd., Las Vegas, NV 89118
 ELAP Cert 2676 | NV Cert NV00922
 ORELAP/NELAP Cert 4046

CLIENT: Eurofins
Work Order: N052158
Project: INTERA-Red-Hill-Incident, 38000861

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS_WP

Sample ID: E220818LCS	SampType: LCS	TestCode: 8015GAS_WP	Units: mg/L	Prep Date:	RunNo: 164958						
Client ID: LCSW	Batch ID: E22VW094	TestNo: EPA 8015B		Analysis Date: 8/18/2022	SeqNo: 4786531						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.088	0.050	1.000	0	109	69	143				
Surr: Chlorobenzene - d5	51.519		50.00		103	69	130				

Sample ID: E220818MB	SampType: MBLK	TestCode: 8015GAS_WP	Units: mg/L	Prep Date:	RunNo: 164958						
Client ID: PBW	Batch ID: E22VW094	TestNo: EPA 8015B		Analysis Date: 8/18/2022	SeqNo: 4786532						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.050									
Surr: Chlorobenzene - d5	49.107		50.00		98.2	69	130				

Sample ID: N052158-001BMS	SampType: MS	TestCode: 8015GAS_WP	Units: mg/L	Prep Date:	RunNo: 164958						
Client ID: ZZZZZ	Batch ID: E22VW094	TestNo: EPA 8015B		Analysis Date: 8/18/2022	SeqNo: 4786535						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.983	0.050	1.000	0	98.3	49	156				
Surr: Chlorobenzene - d5	49.129		50.00		98.3	69	130				

Sample ID: N052158-001BMSD	SampType: MSD	TestCode: 8015GAS_WP	Units: mg/L	Prep Date:	RunNo: 164958						
Client ID: ZZZZZ	Batch ID: E22VW094	TestNo: EPA 8015B		Analysis Date: 8/18/2022	SeqNo: 4786536						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.026	0.050	1.000	0	103	49	156	0.9830	4.28	20	
Surr: Chlorobenzene - d5	50.142		50.00		100	69	130		0	0	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |

Calculations are based on raw values



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NEVADA | P: 702.307.2659 | F: 702.307.2691 | 3151 W. Post Rd., Las Vegas, NV 89118 | ELAP Cert 2676 | NV Cert NV00922 | ORELAP/NELAP Cert 4046

CLIENT: Eurofins
Work Order: N052158
Project: INTERA-Red-Hill-Incident, 38000861

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS_WU

Sample ID: E220818LCS	SampType: LCS	TestCode: 8015GAS_WU	Units: mg/L	Prep Date:	RunNo: 164958						
Client ID: LCSW	Batch ID: E22VW094	TestNo: EPA 8015B		Analysis Date: 8/18/2022	SeqNo: 4786552						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.088	0.050	1.000	0	109	69	143				
Surr: Chlorobenzene - d5	51.519		50.00		103	69	130				

Sample ID: E220818MB	SampType: MBLK	TestCode: 8015GAS_WU	Units: mg/L	Prep Date:	RunNo: 164958						
Client ID: PBW	Batch ID: E22VW094	TestNo: EPA 8015B		Analysis Date: 8/18/2022	SeqNo: 4786553						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.050									
Surr: Chlorobenzene - d5	49.107		50.00		98.2	69	130				

Sample ID: N052158-001BMS	SampType: MS	TestCode: 8015GAS_WU	Units: mg/L	Prep Date:	RunNo: 164958						
Client ID: ZZZZZ	Batch ID: E22VW094	TestNo: EPA 8015B		Analysis Date: 8/18/2022	SeqNo: 4786556						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.983	0.050	1.000	0	98.3	49	156				
Surr: Chlorobenzene - d5	49.129		50.00		98.3	69	130				

Sample ID: N052158-001BMSD	SampType: MSD	TestCode: 8015GAS_WU	Units: mg/L	Prep Date:	RunNo: 164958						
Client ID: ZZZZZ	Batch ID: E22VW094	TestNo: EPA 8015B		Analysis Date: 8/18/2022	SeqNo: 4786557						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.026	0.050	1.000	0	103	49	156	0.9830	4.28	20	
Surr: Chlorobenzene - d5	50.142		50.00		100	69	130		0	0	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



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ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On: 8/17/2022 Workorder: N052158
 Rep sample Temp (Deg C): 4.8 IR Gun ID: 3
 Temp Blank: Yes No
 Carrier name: FedEx
 Last 4 digits of Tracking No.: 3882 Packing Material Used: Bubble Wrap
 Cooling process: Ice Ice Pack Dry Ice Other None

Sample Receipt Checklist

- | | | | |
|---|--|--|--|
| 1. Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| 2. Custody seals intact, signed, dated on shipping container/cooler? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 3. Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 5. Sampler's name present in COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 6. Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 7. Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 8. Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 9. Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 10. Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 11. All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 12. Temperature of rep sample or Temp Blank within acceptable limit? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 13. Water - VOA vials have zero headspace? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 14. Water - pH acceptable upon receipt?
Example: pH > 12 for (CN,S); pH<2 for Metals | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 15. Did the bottle labels indicate correct preservatives used? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 16. Were there Non-Conformance issues at login?
Was Client notified? | Yes <input type="checkbox"/>
Yes <input type="checkbox"/> | No <input type="checkbox"/>
No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>
NA <input checked="" type="checkbox"/> |

Comments:

Checklist Completed By: EF *EfanegoF* 8/17/2022

Reviewed By: *for: [Signature]*
MBC 8/25/2022



ASSET Laboratories

WORK ORDER Summary

25-Aug-22

WorkOrder: N052158

Client ID: EUROF01

Project: INTERA-Red-Hill-Incident, 38000861

QC Level: RTNE

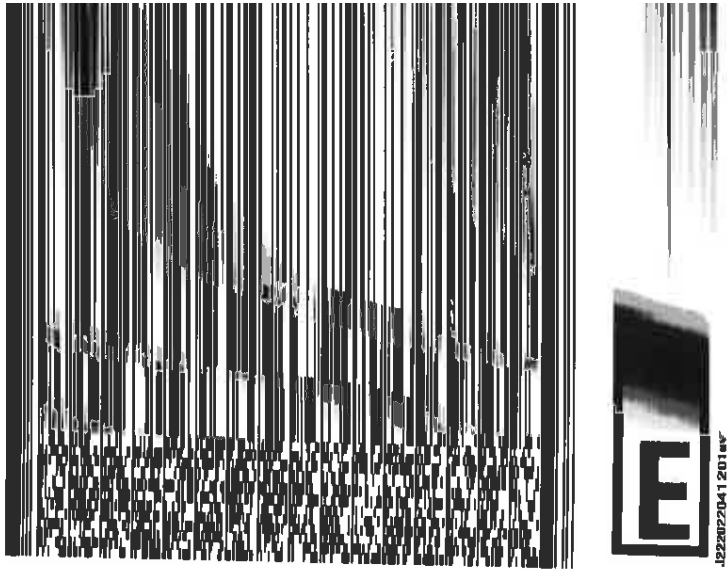
Date Received: 8/17/2022 10:40 AM

Comments: MRL only

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N052158-001A	BWS2253-J1-AQ (380-18330-1)	8/16/2022 10:00:00 AM	8/19/2022	Raw Groundwater	EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			8/19/2022		EPA 8015B(M)	TPH Carbon Chain EPA 8015	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N052158-001B			8/19/2022		EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N052158-002A	BWS2253-J1-TB (380-18330-2)		8/19/2022	Bottled Water	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N052158-003A	FOLDER	8/19/2022	8/19/2022		Folder	Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAB
			8/19/2022		Folder	Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAB



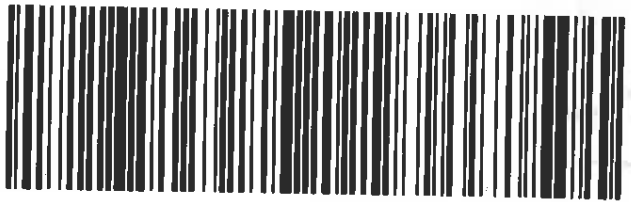
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TRK# 2768 6569 3882
0201

WED - 17 AUG 10:30A
PRIORITY OVERNIGHT
DSR AHS
89118
NV-US LAS

WR LASA



4.8c
1040

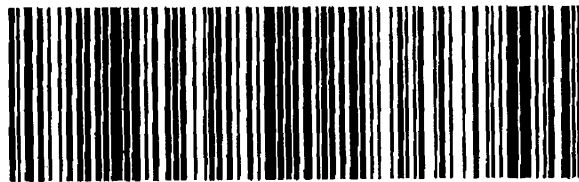


TRK# 2768 6569 3882
0201

WED - 17 AUG 10:30A
PRIORITY OVERNIGHT

WR LASA

DSR AHS
89118
NV-US LAS



4.8c
1040

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Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-18330-1

Login Number: 18330
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Monrovia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	
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	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	