

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL

JOB NUMBER

380-58488-2

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: RED-HILL

Job ID: 380-58488-2

Qualifiers

Subcontract

Qualifier	Qualifier Description
U	This analyte was not detected.

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: RED-HILL

Job ID: 380-58488-2

Job ID: 380-58488-2

Laboratory: Eurofins Eaton Analytical Pomona

Narrative

Job Narrative 380-58488-2

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 are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample 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 8/10/2023 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 time was 1.1°C

Subcontract Work

Methods 8015 Gas (Purgeable) LL (EAL), 8015 LL DRO/MRO/JP5/JP8: These methods were subcontracted to EMAX Laboratories Inc. The subcontract laboratory certifications are different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Method 625 PAH Physis LL (EAL) + TICs: This method was subcontracted to Physis Environmental Laboratories. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Detection Summary

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

Job ID: 380-58488-2

**Client Sample ID: HALAWA WELLS UNITS 1 & 2
(331-206-TP065)**

Lab Sample ID: 380-58488-1

No Detections.

**Client Sample ID: TB HALAWA WELLS UNITS 1 & 2
(331-206-TP065)**

Lab Sample ID: 380-58488-2

No Detections.

1

2

3

4

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11

12

13

14

15

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: 380-58488-2

**Client Sample ID: HALAWA WELLS UNITS 1 & 2
(331-206-TP065)**

Lab Sample ID: 380-58488-1

Date Collected: 08/08/23 10:00

Matrix: Drinking Water

Date Received: 08/10/23 10:20

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Acenaphthene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Acenaphthylene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Anthracene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Biphenyl	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Chrysene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Dibenzothiophene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		08/15/23 00:00	09/23/23 15:55	1
Fluoranthene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Fluorene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Naphthalene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Perylene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Phenanthrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Pyrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 15:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
(d10-Acenaphthene)	79		27 - 133				08/15/23 00:00	09/23/23 15:55	1
(d10-Phenanthrene)	90		43 - 129				08/15/23 00:00	09/23/23 15:55	1
(d12-Chrysene)	88		52 - 144				08/15/23 00:00	09/23/23 15:55	1
(d12-Perylene)	88		36 - 161				08/15/23 00:00	09/23/23 15:55	1
(d8-Naphthalene)	68		25 - 125				08/15/23 00:00	09/23/23 15:55	1

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			08/11/23 19:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	84		60 - 140					08/11/23 19:40	1

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			08/16/23 22:42	1
JP5	ND	U	0.055		mg/L			08/16/23 22:42	1
JP8	ND	U	0.055		mg/L			08/16/23 22:42	1
MOTOR OIL	ND	U	0.055		mg/L			08/16/23 22:42	1

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Client Sample Results

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

Job ID: 380-58488-2

**Client Sample ID: HALAWA WELLS UNITS 1 & 2
(331-206-TP065)**

Lab Sample ID: 380-58488-1

Date Collected: 08/08/23 10:00

Matrix: Drinking Water

Date Received: 08/10/23 10:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOBENZENE	63		60 - 130		08/16/23 22:42	1
HEXACOSANE	86		60 - 130		08/16/23 22:42	1

**Client Sample ID: TB HALAWA WELLS UNITS 1 & 2
(331-206-TP065)**

Lab Sample ID: 380-58488-2

Date Collected: 08/08/23 10:00

Matrix: Water

Date Received: 08/10/23 10:20

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			08/11/23 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	91		60 - 140		08/11/23 19:03	1

Surrogate Summary

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

Job ID: 380-58488-2

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Matrix: BlankMatrix

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)				
		Acenaphtl (27-133)	Phenanth (43-129)	CRY (52-144)	NPT (25-125)	PRY (36-161)
109631-B1	Method Blank	95	101	96	87	99
109631-BS1	Lab Control Sample	93	98	97	86	94
109631-BS2	Lab Control Sample Dup	94	98	98	89	97

Surrogate Legend

(d10-Acenaphthene) = (d10-Acenaphthene)

(d10-Phenanthrene) = (d10-Phenanthrene)

CRY = (d12-Chrysene)

NPT = (d8-Naphthalene)

PRY = (d12-Perylene)

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)				
		Acenaphtl (27-133)	Phenanth (43-129)	CRY (52-144)	NPT (25-125)	PRY (36-161)
380-58488-1	HALAWA WELLS UNITS 1 & 2 (79	90	88	68	88

Surrogate Legend

(d10-Acenaphthene) = (d10-Acenaphthene)

(d10-Phenanthrene) = (d10-Phenanthrene)

CRY = (d12-Chrysene)

NPT = (d8-Naphthalene)

PRY = (d12-Perylene)

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB (60-140)
380-58488-1	HALAWA WELLS UNITS 1 & 2 (84

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		BFB (60-140)
380-58488-2	TB HALAWA WELLS UNITS 1 &	91

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Surrogate Summary

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

Job ID: 380-58488-2

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
23H086-01M	Matrix Spike	107
23H086-01S	Matrix Spike Duplicate	114

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB
23VGH7H06B	Method Blank	

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)
23VGH7H06C	LCD	101
23VGH7H06L	Lab Control Sample	104

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB (60-130)	XACOSAI (60-130)
380-58488-1	HALAWA WELLS UNITS 1 & 2 (63	86

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BB	XACOSAI
23DSH017WB	Method Blank		

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

Surrogate Summary

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

Job ID: 380-58488-2

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BB (60-130)	HEXACOSANE (60-130)
23DSH017WC	LCD	80	100
23DSH017WL	Lab Control Sample	83	106
23J5H017WC	LCD	80	97
23J5H017WL	Lab Control Sample	83	90
23J8H017WC	LCD	99	92
23J8H017WL	Lab Control Sample	98	91

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

QC Sample Results

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

Job ID: 380-58488-2

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Lab Sample ID: 109631-B1
Matrix: BlankMatrix
Analysis Batch: O-42058

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-42058_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Acenaphthene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Acenaphthylene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Anthracene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Biphenyl	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Chrysene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Dibenzothiophene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		08/15/23 00:00	09/23/23 10:30	1
Fluoranthene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Fluorene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Naphthalene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Perylene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Phenanthrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1
Pyrene	ND		0.005	0.001	µg/L		08/15/23 00:00	09/23/23 10:30	1

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
(d10-Acenaphthene)	95		27 - 133	08/15/23 00:00	09/23/23 10:30	1
(d10-Phenanthrene)	101		43 - 129	08/15/23 00:00	09/23/23 10:30	1
(d12-Chrysene)	96		52 - 144	08/15/23 00:00	09/23/23 10:30	1
(d12-Perylene)	99		36 - 161	08/15/23 00:00	09/23/23 10:30	1
(d8-Naphthalene)	87		25 - 125	08/15/23 00:00	09/23/23 10:30	1

Lab Sample ID: 109631-BS1
Matrix: BlankMatrix
Analysis Batch: O-42058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-42058_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.5	0.433		µg/L		87	31 - 128
1-Methylphenanthrene	0.5	0.466		µg/L		93	66 - 127
2,3,5-Trimethylnaphthalene	0.5	0.453		µg/L		91	55 - 122
2,6-Dimethylnaphthalene	0.5	0.445		µg/L		89	48 - 120
2-Methylnaphthalene	0.5	0.437		µg/L		87	47 - 130
Acenaphthene	0.5	0.449		µg/L		90	53 - 131
Acenaphthylene	0.5	0.457		µg/L		91	43 - 140
Anthracene	0.5	0.451		µg/L		90	58 - 135

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-58488-2

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 109631-BS1
Matrix: BlankMatrix
Analysis Batch: O-42058

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-42058_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benz[a]anthracene	0.5	0.453		µg/L		91	55 - 145
Benzo[a]pyrene	0.5	0.474		µg/L		95	51 - 143
Benzo[b]fluoranthene	0.5	0.437		µg/L		87	46 - 165
Benzo[e]pyrene	0.5	0.433		µg/L		87	42 - 152
Benzo[g,h,i]perylene	0.5	0.457		µg/L		91	63 - 133
Benzo[k]fluoranthene	0.5	0.452		µg/L		90	56 - 145
Biphenyl	0.5	0.457		µg/L		91	56 - 119
Chrysene	0.5	0.441		µg/L		88	56 - 141
Dibenz[a,h]anthracene	0.5	0.442		µg/L		88	55 - 150
Dibenzo[a,l]pyrene	0.5	0.537		µg/L		107	50 - 150
Dibenzothiophene	0.5	0.469		µg/L		94	46 - 126
Disalicylidenepropanediamine	50	41.1		µg/L		82	50 - 150
Fluoranthene	0.5	0.471		µg/L		94	60 - 146
Fluorene	0.5	0.458		µg/L		92	58 - 131
Indeno[1,2,3-cd]pyrene	0.5	0.379		µg/L		76	50 - 151
Naphthalene	0.5	0.432		µg/L		86	41 - 126
Perylene	0.5	0.44		µg/L		88	48 - 141
Phenanthrene	0.5	0.467		µg/L		93	67 - 127
Pyrene	0.5	0.468		µg/L		94	54 - 156

Surrogate	LCS %Recovery	LCS Qualifier	Limits
(d10-Acenaphthene)	93		27 - 133
(d10-Phenanthrene)	98		43 - 129
(d12-Chrysene)	97		52 - 144
(d12-Perylene)	94		36 - 161
(d8-Naphthalene)	86		25 - 125

Lab Sample ID: 109631-BS2
Matrix: BlankMatrix
Analysis Batch: O-42058

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-42058_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	0.5	0.436		µg/L		87	31 - 128	0	30
1-Methylphenanthrene	0.5	0.464		µg/L		93	66 - 127	0	30
2,3,5-Trimethylnaphthalene	0.5	0.458		µg/L		92	55 - 122	1	30
2,6-Dimethylnaphthalene	0.5	0.45		µg/L		90	48 - 120	1	30
2-Methylnaphthalene	0.5	0.448		µg/L		90	47 - 130	3	30
Acenaphthene	0.5	0.455		µg/L		91	53 - 131	1	30
Acenaphthylene	0.5	0.461		µg/L		92	43 - 140	1	30
Anthracene	0.5	0.47		µg/L		94	58 - 135	4	30
Benz[a]anthracene	0.5	0.449		µg/L		90	55 - 145	1	30
Benzo[a]pyrene	0.5	0.473		µg/L		95	51 - 143	0	30
Benzo[b]fluoranthene	0.5	0.434		µg/L		87	46 - 165	0	30
Benzo[e]pyrene	0.5	0.433		µg/L		87	42 - 152	0	30
Benzo[g,h,i]perylene	0.5	0.474		µg/L		95	63 - 133	4	30
Benzo[k]fluoranthene	0.5	0.45		µg/L		90	56 - 145	0	30
Biphenyl	0.5	0.461		µg/L		92	56 - 119	1	30
Chrysene	0.5	0.44		µg/L		88	56 - 141	0	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-58488-2

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 109631-BS2
Matrix: BlankMatrix
Analysis Batch: O-42058

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-42058_P

Analyte	Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenz[a,h]anthracene	0.5	0.46		µg/L		92	55 - 150	4	30
Dibenzo[a,l]pyrene	0.5	0.567		µg/L		113	50 - 150	5	30
Dibenzothiophene	0.5	0.471		µg/L		94	46 - 126	0	30
Disalicylidenepropanediamine	50	40.1		µg/L		80	50 - 150	2	30
Fluoranthene	0.5	0.464		µg/L		93	60 - 146	1	30
Fluorene	0.5	0.455		µg/L		91	58 - 131	1	30
Indeno[1,2,3-cd]pyrene	0.5	0.388		µg/L		78	50 - 151	3	30
Naphthalene	0.5	0.446		µg/L		89	41 - 126	3	30
Perylene	0.5	0.419		µg/L		84	48 - 141	5	30
Phenanthrene	0.5	0.466		µg/L		93	67 - 127	0	30
Pyrene	0.5	0.46		µg/L		92	54 - 156	2	30

Surrogate	LCS DUP %Recovery	LCS DUP Qualifier	Limits
(d10-Acenaphthene)	94		27 - 133
(d10-Phenanthrene)	98		43 - 129
(d12-Chrysene)	98		52 - 144
(d12-Perylene)	97		36 - 161
(d8-Naphthalene)	89		25 - 125

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Lab Sample ID: 23VGH7H06B
Matrix: WATER
Analysis Batch: 23VGH7H06

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			08/11/23 17:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE					08/11/23 17:10	1

Lab Sample ID: 23VGH7H06L
Matrix: WATER
Analysis Batch: 23VGH7H06

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
GASOLINE	0.5	0.464		mg/L		93	60 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
BROMOFLUOROBENZENE	104		70 - 130

Lab Sample ID: 23H086-01M
Matrix: WATER
Analysis Batch: 23VGH7H06

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	ND		0.5	0.45		mg/L		90	50 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-58488-2

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics (Continued)

Lab Sample ID: 23H086-01M
Matrix: WATER
Analysis Batch: 23VGH7H06

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

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
BROMOFLUOROBENZENE	107		60 - 140

Lab Sample ID: 23H086-01S
Matrix: WATER
Analysis Batch: 23VGH7H06

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	ND		0.5	0.467		mg/L		93	50 - 130	4	30

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
BROMOFLUOROBENZENE	114		60 - 140

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Lab Sample ID: 23DSH017WB
Matrix: WATER
Analysis Batch: 23DSH017W

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.025		mg/L			08/16/23 18:21	1
JP5	ND	U	0.05		mg/L			08/16/23 18:21	1
JP8	ND	U	0.05		mg/L			08/16/23 18:21	1
MOTOR OIL	ND	U	0.05		mg/L			08/16/23 18:21	1

	MB	MB			
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed
BROMOBENZENE					08/16/23 18:21
HEXACOSANE					08/16/23 18:21

Lab Sample ID: 23DSH017WL
Matrix: WATER
Analysis Batch: 23DSH017W

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
DIESEL	2.5	2.73		mg/L		109	50 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
BROMOBENZENE	83		60 - 130
HEXACOSANE	106		60 - 130

Lab Sample ID: 23J5H017WL
Matrix: WATER
Analysis Batch: 23DSH017W

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
JP5	2.5	2.15		mg/L		86	30 - 160

QC Sample Results

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

Job ID: 380-58488-2

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO (Continued)

Lab Sample ID: 23J5H017WL
Matrix: WATER
Analysis Batch: 23DSH017W

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

<i>Surrogate</i>	<i>LCS</i> <i>%Recovery</i>	<i>LCS</i> <i>Qualifier</i>	<i>Limits</i>
BROMOBENZENE	83		60 - 130
HEXACOSANE	90		60 - 130

Lab Sample ID: 23J8H017WL
Matrix: WATER
Analysis Batch: 23DSH017W

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

<i>Analyte</i>	<i>Spike</i> <i>Added</i>	<i>LCS</i> <i>Result</i>	<i>LCS</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i> <i>Limits</i>
JP8	2.5	2.68		mg/L		107	30 - 160

<i>Surrogate</i>	<i>LCS</i> <i>%Recovery</i>	<i>LCS</i> <i>Qualifier</i>	<i>Limits</i>
BROMOBENZENE	98		60 - 130
HEXACOSANE	91		60 - 130

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QC Association Summary

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

Job ID: 380-58488-2

Subcontract

Analysis Batch: O-42058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-58488-1	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-42058_P
109631-B1	Method Blank	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-42058_P
109631-BS1	Lab Control Sample	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-42058_P
109631-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-42058_P

Analysis Batch: 23DSH017W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-58488-1	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015 LL DRO/MRO/JP5/J P8	
23DSH017WB	Method Blank	Total/NA	WATER	8015 LL DRO/MRO/JP5/J P8	
23DSH017WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/J P8	
23J5H017WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/J P8	
23J8H017WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/J P8	

Analysis Batch: 23VGH7H06

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-58488-1	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-58488-2	TB HALAWA WELLS UNITS 1 & 2 (331-206-TP01)	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
23VGH7H06B	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
23VGH7H06L	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
23H086-01M	Matrix Spike	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
23H086-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Prep Batch: O-42058_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-58488-1	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	EPA_625	
109631-B1	Method Blank	Total/NA	BlankMatrix	EPA_625	
109631-BS1	Lab Control Sample	Total/NA	BlankMatrix	EPA_625	
109631-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	EPA_625	

Lab Chronicle

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

Job ID: 380-58488-2

**Client Sample ID: HALAWA WELLS UNITS 1 & 2
 (331-206-TP065)**

Lab Sample ID: 380-58488-1

Date Collected: 08/08/23 10:00

Matrix: Drinking Water

Date Received: 08/10/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA_625		1	O-42058_P			08/15/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-42058	YC		09/23/23 15:55
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VGH7H06	SCerva		08/11/23 19:40
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	23DSH017W	SDees		08/16/23 22:42

**Client Sample ID: TB HALAWA WELLS UNITS 1 & 2
 (331-206-TP065)**

Lab Sample ID: 380-58488-2

Date Collected: 08/08/23 10:00

Matrix: Water

Date Received: 08/10/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VGH7H06	SCerva		08/11/23 19:03

Laboratory References:

= Physis Environmental Laboratories, 1904 Wright Circle, Anaheim, CA 92806

Method Summary

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

Job ID: 380-58488-2

Method	Method Description	Protocol	Laboratory
625	EPA 625 Base/Neutral and Acid Organics i	EPA	
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:

= Physis Environmental Laboratories, 1904 Wright Circle, Anaheim, CA 92806



Sample Summary

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

Job ID: 380-58488-2

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
380-58488-1	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Drinking Water	08/08/23 10:00	08/10/23 10:20
380-58488-2	TB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Water	08/08/23 10:00	08/10/23 10:20

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EMAX
LABORATORIES, INC.
 3051 Fujita Street
 Torrance, CA 90505
 Tel: (310)-618-8889

Date: 09-05-2023
 EMAX Batch No.: 23H086

Attn: Jackie Contreras

Eurofins Eaton Analytical
 750 Royal Oaks Dr., Suite 100
 Monrovia, CA 91016-3629

Subject: Laboratory Report
 Project: 380-58488


Enclosed is the Laboratory report for samples received on 08/11/23.
 The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-58488-1	H086-01	08/08/23	WATER	TPH GASOLINE TPH
380-58488-2	H086-02	08/08/23	WATER	TPH GASOLINE
380-58488-1MS	H086-01M	08/08/23	WATER	TPH GASOLINE
380-58488-1MSD	H086-01S	08/08/23	WATER	TPH GASOLINE

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,


 Caspar J. Pang
 Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all TNI & DOD requirements unless noted in the Case Narrative.

NELAP Accredited Certificate Number CA002912022-24
 ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
 California ELAP Accredited Certificate Number 2672

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Lab PM:		Carrier Tracking No(s):		COC No:			
Company: EMAX Laboratories Inc		Arada, Rachelle		380-69552-1		380-69552-1			
Address: 3051 Fujita Street, Torrance, CA, 90505		E-Mail: Rachelle.Arada@et.eurofins.com		State of Origin: Hawaii		Page: Page 1 of 1			
Phone: [Blank]		Project #: 38001111		Accreditations Required (See note): State - Hawaii		Job #: 380-58488-1			
Due Date Requested: 8/24/2023		TAT Requested (days):		Analysis Requested		Preservation Codes:			
Sample Date		Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Sewage, On-site, etc)	Field Filtered Sample (Yes or No)	Perform M/MSD (Yes or No)	Sub (8015 Gas (Purgeable) LL (EAL) / 8015 Gas (Purgeable) LL (EAL) / 8015 LL DROM/RO/PS/JP8)	Total Number of Containers	Special Instructions/Note:
8/8/23	10:00 Hawaiian	Water			X	X		5	See Attached Instructions
8/8/23	10:00 Hawaiian	Water			X	X		1	See Attached Instructions
<p>Sample Identification - Client ID (Lab ID)</p> <p>HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-58488-1)</p> <p>TB HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-58488-1)</p>									

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/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.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Empty Kit Relinquished by: [Signature]
 Relinquished by: [Signature]
 Relinquished by: [Signature]
 Relinquished by: [Signature]

Date: 8/11/23 1050
 Date/Time: 8/11/23 1050
 Date/Time: [Blank]
 Date/Time: [Blank]

Company: EBA Company
 Company: Emax Company
 Company: [Blank]

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements: [Blank]

Method of Shipment: [Blank]

Cooler Temperature(s) °C and Other Remarks: 4.4/4.3 *CF: -0.1



Type of Delivery <input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others <input checked="" type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery	Airbill / Tracking Number	ECN <u>23H086</u> Recipient <u>Jhown Zamora</u> Date <u>08/11/23</u> Time <u>1050</u>
--	---------------------------	---

COC INSPECTION

<input checked="" type="checkbox"/> Client Name	<input checked="" type="checkbox"/> Client PM/FC	<input type="checkbox"/> Sampler Name	<input checked="" type="checkbox"/> Sampling Date/Time	<input checked="" type="checkbox"/> Sample ID	<input checked="" type="checkbox"/> Matrix
<input checked="" type="checkbox"/> Address	<input type="checkbox"/> Tel # / Fax #	<input type="checkbox"/> Courier Signature	<input checked="" type="checkbox"/> Analysis Required	<input type="checkbox"/> Preservative (if any)	<input checked="" type="checkbox"/> TAT
Safety Issues (if any) Note: _____	<input type="checkbox"/> High concentrations expected	<input type="checkbox"/> From Superfund Site	<input type="checkbox"/> Rad screening required		

PACKAGING INSPECTION

Container	<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition <u>Correction</u>	<input type="checkbox"/> Custody Seal	<input type="checkbox"/> Intact	<input type="checkbox"/> Damaged
Packaging <u>factor: -0.1</u>	<input checked="" type="checkbox"/> Bubble Pack	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Popcorn
Temperatures (Cool, ≤6 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 <u>4.4/4.3</u> °C	<input type="checkbox"/> Cooler 2 _____ °C	<input type="checkbox"/> Cooler 3 _____ °C
Thermometer: <u>A - S/N 221852708</u>	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °C
	<input type="checkbox"/> Cooler 9 _____ °C	<input type="checkbox"/> Cooler 10 _____ °C	

Comments: Temperature is out of range. PM was informed IMMEDIATELY.
 Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;"> <p>AS 8/14/23</p> </div>				

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

NOTES/OBSERVATIONS:
 SAMPLE MATRIX IS DRINKING WATER? YES NO

- LEGEND:**
- | | | |
|--|---|---|
| <p>Code Description- Sample Management</p> <p>D1 Analysis is not indicated in _____</p> <p>D2 Analysis mismatch COC vs label</p> <p>D3 Sample ID mismatch COC vs label</p> <p>D4 Sample ID is not indicated in _____</p> <p>D5 Container -[improper] [leaking] [broken]</p> <p>D6 Date/Time is not indicated in _____</p> <p>D7 Date/Time mismatch COC vs label</p> <p>D8 Sample listed in COC is not received</p> <p>D9 Sample received is not listed in COC</p> <p>D10 No initial/date on corrections in COC/label</p> <p>D11 Container count mismatch COC vs received</p> <p>D12 Container size mismatch COC vs received</p> | <p>Code Description-Sample Management</p> <p>D13 Out of Holding Time</p> <p>D14 Bubble is >6mm</p> <p>D15 No trip blank in cooler</p> <p>D16 Preservation not indicated in _____</p> <p>D17 Preservation mismatch COC vs label</p> <p>D18 Insufficient chemical preservative</p> <p>D19 Insufficient Sample</p> <p>D20 No filtration info for dissolved analysis</p> <p>D21 No sample for moisture determination</p> <p>D22 _____</p> <p>D23 _____</p> <p>D24 _____</p> | <p><input type="checkbox"/> Continue to next page.</p> <p>Code Description-Sample Management</p> <p>R1 Proceed as indicated in <input type="checkbox"/> COC <input type="checkbox"/> Label</p> <p>R2 Refer to attached instruction</p> <p>R3 Cancel the analysis</p> <p>R4 Use vial with smallest bubble first</p> <p>R5 Log-in with latest sampling date and time+1 min</p> <p>R6 Adjust pH as necessary</p> <p>R7 Filter and preserved as necessary</p> <p>R8 _____</p> <p>R9 _____</p> <p>R10 _____</p> <p>R11 _____</p> <p>R12 _____</p> |
|--|---|---|

REVIEWS:

Sample Labeling Nandeen Nlacana SRF Regina PM AS
 Date 08/11/23 Date 8/11/23 Date 8/14/23

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range or estimated value.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-58488

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

SDG#: 23H086



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-58488

SDG : 23H086

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

A total of two(2) water samples were received on 08/11/23 to be analyzed for Total Petroleum Hydrocarbons by Purge and Trap in accordance with Method 5030B/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. VGH7H06B - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. VGH7H06L/VGH7H06C were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. Gasoline was within MS QC limits in H086-01M/H086-01S. Refer to Matrix QC summary form for details.

Surrogate

Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : EUROFIN S EATON ANALYTICAL
Project : 380-58488

SDG NO. : 23H086
Instrument ID : H7

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
					WATER				
MBLK1W	VGH7H06B	1	NA	08/11/2317:10	08/11/2317:10	AH11005A	AH11004A	23VGH7H06	Method Blank
LCS1W	VGH7H06L	1	NA	08/11/2317:48	08/11/2317:48	AH11006A	AH11004A	23VGH7H06	Lab Control Sample (LCS)
LCD1W	VGH7H06C	1	NA	08/11/2318:25	08/11/2318:25	AH11007A	AH11004A	23VGH7H06	LCS Duplicate
380-58488-2	H086-02	1	NA	08/11/2319:03	08/11/2319:03	AH11008A	AH11004A	23VGH7H06	Field Sample
380-58488-1	H086-01	1	NA	08/11/2319:40	08/11/2319:40	AH11009A	AH11004A	23VGH7H06	Field Sample
380-58488-1MS	H086-01M	1	NA	08/11/2320:18	08/11/2320:18	AH11010A	AH11004A	23VGH7H06	Matrix Spike Sample (MS)
380-58488-1MSD	H086-01S	1	NA	08/11/2320:56	08/11/2320:56	AH11011A	AH11004A	23VGH7H06	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

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SAMPLE RESULTS

METHOD 5030B/8015B
 TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : EUROFINS EATON ANALYTICAL	Date Collected: 08/08/23 10:00
Project : 380-58488	Date Received: 08/11/23
Batch No. : 23H086	Date Extracted: 08/11/23 19:40
Sample ID : 380-58488-1	Date Analyzed: 08/11/23 19:40
Lab Samp ID: H086-01	Dilution Factor: 1
Lab File ID: AH11009A	Matrix: WATER
Ext Btch ID: 23VGH7H06	% Moisture: NA
Calib. Ref.: AH11004A	Instrument ID: H7

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
-----	-----	-----	-----
GASOLINE	ND	0.020	0.010
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY
-----	-----	-----	-----
Bromofluorobenzene	0.0337	0.0400	84
			60-140

Notes:

Parameter H-C Range

Gasoline C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml

Final Volume : 5ml

Prepared by : SCerva

Analyzed by : SCerva

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

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Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/08/23 10:00
Project     : 380-58488                   Date Received: 08/11/23
Batch No.   : 23H086                       Date Extracted: 08/11/23 19:03
Sample ID   : 380-58488-2                 Date Analyzed: 08/11/23 19:03
Lab Samp ID: H086-02                       Dilution Factor: 1
Lab File ID: AH11008A                       Matrix: WATER
Ext Btch ID: 23VGH7H06                       % Moisture: NA
Calib. Ref.: AH11004A                       Instrument ID: H7
=====
  
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
-----	-----	-----	-----	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
-----	-----	-----	-----	-----
Bromofluorobenzene	0.0364	0.0400	91	60-140
-----	-----	-----	-----	-----

Notes:

Parameter H-C Range

Gasoline C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml

Final Volume : 5ml

Prepared by : SCerva

Analyzed by : SCerva

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QC SUMMARIES

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

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Client : EUROFINS EATON ANALYTICAL Date Collected: 08/11/23 17:10
Project : 380-58488 Date Received: 08/11/23
Batch No. : 23H086 Date Extracted: 08/11/23 17:10
Sample ID : MBLK1W Date Analyzed: 08/11/23 17:10
Lab Samp ID: VGH7H06B Dilution Factor: 1
Lab File ID: AH11005A Matrix: WATER
Ext Btch ID: 23VGH7H06 % Moisture: NA
Calib. Ref.: AH11004A Instrument ID: H7
=====

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
-----	-----	-----	-----
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
-----	-----	-----	-----	-----
Bromofluorobenzene	0.0339	0.0400	85	60-140

Notes:

Parameter H-C Range
Gasoline C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-58488
BATCH NO. : 23H086
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: VGH7H06B	VGH7H06L	VGH7H06C
LAB FILE ID	: AH11005A	AH11006A	AH11007A
DATE PREPARED	: 08/11/23 17:10	08/11/23 17:48	08/11/23 18:25
DATE ANALYZED	: 08/11/23 17:10	08/11/23 17:48	08/11/23 18:25
PREP BATCH	: 23VGH7H06	23VGH7H06	23VGH7H06
CALIBRATION REF:	AH11004A	AH11004A	AH11004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.464	93	0.500	0.428	86	8	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0417	104	0.0400	0.0405	101	70-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-58488
BATCH NO. : 23H086
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: 380-58488-1	380-58488-1MS	380-58488-1MSD
LAB SAMPLE ID	: H086-01	H086-01M	H086-01S
LAB FILE ID	: AH11009A	AH11010A	AH11011A
DATE PREPARED	: 08/11/23 19:40	08/11/23 20:18	08/11/23 20:56
DATE ANALYZED	: 08/11/23 19:40	08/11/23 20:18	08/11/23 20:56
PREP BATCH	: 23VGH7H06	23VGH7H06	23VGH7H06
CALIBRATION REF:	AH11004A	AH11004A	AH11004A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.450	90	0.500	0.467	93	4	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0427	107	0.0400	0.0456	114	60-140

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-58488

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 23H086

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CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-58488

SDG : 23H086

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 08/11/23 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

The sample was analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSH017WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. DSH017WL/DSH017WC were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

No matrix QC sample was provided on this SDG.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

The sample was analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-58488

SDG : 23H086

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 08/11/23 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

The sample was analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSH017WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. J5H017WL/J5H017WC were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

No matrix QC sample was provided on this SDG.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

The sample was analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-58488

SDG : 23H086

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 08/11/23 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

The sample was analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSH017WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. J8H017WL/J8H017WC were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

No matrix QC sample was provided on this SDG.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

The sample was analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-58488
SDG NO. : 23H086
Instrument ID : D5

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSH017WB	1	NA	08/16/2318:21	08/14/2310:30	LH16016A	LH16009A	23DSH017W	Method Blank
LCS1W	DSH017WL	1	NA	08/16/2318:40	08/14/2310:30	LH16017A	LH16009A	23DSH017W	Lab Control Sample (LCS)
LCD1W	DSH017WC	1	NA	08/16/2318:58	08/14/2310:30	LH16018A	LH16009A	23DSH017W	LCS Duplicate
380-58488-1	H086-01	1	NA	08/16/2322:42	08/14/2310:30	LH16030A	LH16009A	23DSH017W	Field Sample

FN - Filename
% Moist - Percent Moisture



LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-58488

SDG NO. : 23H086
Instrument ID : D5

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
					WATER				
MBLK1W	DSH017WB	1	NA	08/16/2318:21	08/14/2310:30	LH16016A	LH16010A	23DSH017W	Method Blank
LCS1W	J5H017WL	1	NA	08/16/2319:17	08/14/2310:30	LH16019A	LH16010A	23DSH017W	Lab Control Sample (LCS)
LCD1W	J5H017WC	1	NA	08/16/2319:36	08/14/2310:30	LH16020A	LH16010A	23DSH017W	LCS Duplicate
380-58488-1	H086-01	1	NA	08/16/2322:42	08/14/2310:30	LH16030A	LH16010A	23DSH017W	Field Sample

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL	SDG NO. : 23H086
Project : 380-58488	Instrument ID : D5

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
					WATER				
MBLK1W	DSH017MB	1	NA	08/16/2318:21	08/14/2310:30	LH16016A	LH16011A	23DSH017W	Method Blank
LCS1W	J8H017WL	1	NA	08/16/2319:54	08/14/2310:30	LH16021A	LH16011A	23DSH017W	Lab Control Sample (LCS)
LCD1W	J8H017WC	1	NA	08/16/2320:13	08/14/2310:30	LH16022A	LH16011A	23DSH017W	LCS Duplicate
380-58488-1	H086-01	1	NA	08/16/2322:42	08/14/2310:30	LH16030A	LH16011A	23DSH017W	Field Sample

FN - Filename
% Moist - Percent Moisture

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SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL	Date Collected: 08/08/23 10:00
Project : 380-58488	Date Received: 08/11/23
Batch No. : 23H086	Date Extracted: 08/14/23 10:30
Sample ID : 380-58488-1	Date Analyzed: 08/16/23 22:42
Lab Samp ID: 23H086-01	Dilution Factor: 1
Lab File ID: LH16030A	Matrix: WATER
Ext Btch ID: 23DSH017W	% Moisture: NA
Calib. Ref.: LH16009A	Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)		
Diesel	ND	0.027	0.014		
Motor Oil	ND	0.055	0.027		
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT	
Bromobenzene	0.344	0.545	63	60-130	
Hexacosane	0.117	0.136	86	60-130	

Notes:

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 920ml	Final Volume : 5ml
Prepared by : RGalan	Analyzed by : SDeeso

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	08/08/23 10:00
Project	: 380-58488	Date Received:	08/11/23
Batch No.	: 23H086	Date Extracted:	08/14/23 10:30
Sample ID	: 380-58488-1	Date Analyzed:	08/16/23 22:42
Lab Samp ID:	23H086-01	Dilution Factor:	1
Lab File ID:	LH16030A	Matrix:	WATER
Ext Btch ID:	23DSH017W	% Moisture:	NA
Calib. Ref.:	LH16010A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP5	ND	0.055	0.027	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.344	0.545	63	60-130
Hexacosane	0.117	0.136	86	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP5 C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 920ml Final Volume : 5ml
 Prepared by : RGalan Analyzed by : SDeeso

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

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=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/08/23 10:00
Project     : 380-58488                   Date Received: 08/11/23
Batch No.   : 23H086                       Date Extracted: 08/14/23 10:30
Sample ID   : 380-58488-1                 Date Analyzed: 08/16/23 22:42
Lab Samp ID : 23H086-01                   Dilution Factor: 1
Lab File ID : LH16030A                     Matrix: WATER
Ext Btch ID : 23DSH017W                   % Moisture: NA
Calib. Ref.: LH16011A                     Instrument ID: D5
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PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP8	ND	0.055	0.027	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.344	0.545	63	60-130
Hexacosane	0.117	0.136	86	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP8 C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 920ml Final Volume : 5ml
 Prepared by : RGalan Analyzed by : SDeeso

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QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL	Date Collected: 08/14/23 10:30
Project : 380-58488	Date Received: 08/14/23
Batch No. : 23H086	Date Extracted: 08/14/23 10:30
Sample ID : MBLK1W	Date Analyzed: 08/16/23 18:21
Lab Samp ID: DSH017WB	Dilution Factor: 1
Lab File ID: LH16016A	Matrix: WATER
Ext Btch ID: 23DSH017W	% Moisture: NA
Calib. Ref.: LH16009A	Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.025	0.012	
Motor Oil	ND	0.050	0.025	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.379	0.500	76	60-130
Hexacosane	0.114	0.125	91	60-130

Notes:

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1000ml	Final Volume : 5ml
Prepared by : RGalan	Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-58488
BATCH NO. : 23H086
METHOD : 3520C/8015B

MATRIX : WATER % MOISTURE:NA
DILUTION FACTOR: 1 1
SAMPLE ID : MBLK1W LCS1W LCD1W
LAB SAMPLE ID : DSH017WB DSH017WL DSH017WC
LAB FILE ID : LH16016A LH16017A LH16018A
DATE PREPARED : 08/14/23 10:30 08/14/23 10:30 08/14/23 10:30
DATE ANALYZED : 08/16/23 18:21 08/16/23 18:40 08/16/23 18:58
PREP BATCH : 23DSH017W 23DSH017W 23DSH017W
CALIBRATION REF: LH16009A LH16009A LH16009A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.50	2.73	109	2.50	2.76	110	1	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.414	83	0.500	0.398	80	60-130
Hexacosane	0.125	0.133	106	0.125	0.125	100	60-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL Date Collected: 08/14/23 10:30
 Project : 380-58488 Date Received: 08/14/23
 Batch No. : 23H086 Date Extracted: 08/14/23 10:30
 Sample ID : MBLK1W Date Analyzed: 08/16/23 18:21
 Lab Samp ID: DSH017WB Dilution Factor: 1
 Lab File ID: LH16016A Matrix: WATER
 Ext Btch ID: 23DSH017W % Moisture: NA
 Calib. Ref.: LH16010A Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)		
JP5	ND	0.050	0.025		
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT	
Bromobenzene	0.379	0.500	76	60-130	
Hexacosane	0.114	0.125	91	60-130	

Notes:

RL : Reporting Limit

Parameter H-C Range

JP5 C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1000ml

Final Volume : 5ml

Prepared by : RGalan

Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-58488
BATCH NO. : 23H086
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: DSH017WB	J5H017WL	J5H017WC
LAB FILE ID	: LH16016A	LH16019A	LH16020A
DATE PREPARED	: 08/14/23 10:30	08/14/23 10:30	08/14/23 10:30
DATE ANALYZED	: 08/16/23 18:21	08/16/23 19:17	08/16/23 19:36
PREP BATCH	: 23DSH017W	23DSH017W	23DSH017W
CALIBRATION REF:	LH16010A	LH16010A	LH16010A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP5	ND	2.50	2.15	86	2.50	2.06	82	4	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.416	83	0.500	0.402	80	60-130
Hexacosane	0.125	0.113	90	0.125	0.121	97	60-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL	Date Collected: 08/14/23 10:30
Project : 380-58488	Date Received: 08/14/23
Batch No. : 23H086	Date Extracted: 08/14/23 10:30
Sample ID : MBLK1W	Date Analyzed: 08/16/23 18:21
Lab Samp ID: DSH017WB	Dilution Factor: 1
Lab File ID: LH16016A	Matrix: WATER
Ext Btch ID: 23DSH017W	% Moisture: NA
Calib. Ref.: LH16011A	Instrument ID: D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP8	ND	0.050	0.025	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.379	0.500	76	60-130
Hexacosane	0.114	0.125	91	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP8 C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1000ml Final Volume : 5ml
 Prepared by : RGalán Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-58488
BATCH NO. : 23H086
METHOD : 3520C/8015B

MATRIX : WATER % MOISTURE:NA
DILUTION FACTOR: 1 1
SAMPLE ID : MBLK1W LCS1W LCD1W
LAB SAMPLE ID : DSH017WB J8H017WL J8H017WC
LAB FILE ID : LH16016A LH16021A LH16022A
DATE PREPARED : 08/14/23 10:30 08/14/23 10:30 08/14/23 10:30
DATE ANALYZED : 08/16/23 18:21 08/16/23 19:54 08/16/23 20:13
PREP BATCH : 23DSH017W 23DSH017W 23DSH017W
CALIBRATION REF: LH16011A LH16011A LH16011A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP8	ND	2.50	2.68	107	2.50	2.60	104	3	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.492	98	0.500	0.495	99	60-130
Hexacosane	0.125	0.114	91	0.125	0.115	92	60-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

September 25, 2023

Rachelle Arada
 Eurofins Eaton Analytical
 750 Royal Oaks Drive
 Suite 100
 Monrovia, CA 91016-

Project Name: RED-HILL Project # 38001111 Job # 380-58488-1
 Physis Project ID: 1407003-435

Dear Rachelle,

Enclosed are the analytical results for the sample submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 8/11/2023. A total of 1 sample was received for analysis in accordance with the attached chain of custody (COC). Per the COC, the sample was analyzed for:

Organics
Polynuclear Aromatic Hydrocarbons by EPA 625.1
Disalicylidenepropanediamine by EPA 625.1
Dibenzo [a,l] Pyrene w/ PAHs by EPA 625.1

Analytical results in this report apply only to samples submitted to PHYSIS in accordance with the COC and are intended to be considered in their entirety.

Please feel free to contact me at any time with any questions. PHYSIS appreciates the opportunity to provide you with our analytical and support services.

Regards,

Rachel Hansen
 714 602-5320
 Extension 203
 rachelhansen@physislabs.com



PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-435

RED-HILL Project # 38001111 Job # 380-58488-1

Total Samples: 1

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
109632	HALAWA WELLS UNITS 1 & 231-206-TP065	(380-58488-1)	8/8/2023	10:00	Samplewater	Not Specified



ABBREVIATIONS and ACRONYMS

QM	Quality Manual
QA	Quality Assurance
QC	Quality Control
MDL	method detection limit
RL	reporting limit
R1	project sample
R2	project sample replicate
MS1	matrix spike
MS2	matrix spike replicate
B1	procedural blank
B2	procedural blank replicate
BS1	blank spike
BS2	blank spike replicate
LCS1	laboratory control spike
LCS2	laboratory control spike replicate
LCM1	laboratory control material
LCM2	laboratory control material replicate
CRM1	certified reference material
CRM2	certified reference material replicate
RPD	relative percent difference
LMW	low molecular weight
HMW	high molecular weight

QUALITY ASSURANCE SUMMARY

LABORATORY BATCH: Physis' QM defines a laboratory batch as a group of 20 or fewer project samples of similar matrix, processed together under the same conditions and with the same reagents. QC samples are associated with each batch and were used to assess the validity of the sample analyses.

PROCEDURAL BLANK: Laboratory contamination introduced during method use is assessed through the preparation and analysis of procedural blanks is provided at a minimum frequency of one per batch.

ACCURACY: Accuracy of analytical measurements is the degree of closeness based on percent recovery calculations between measured values and the actual or true value and includes a combination of reproducibility error and systematic bias due to sampling and analytical operations. Accuracy of the project data was indicated by analysis of MS, BS, LCS, LCM, CRM, and/or surrogate spikes on a minimum frequency of one per batch. Physis' QM requires that 95% of the target compounds greater than 10 times the MDL be within the specified acceptance limits.

PRECISION: Precision is the agreement among a set of replicate measurements without assumption of knowledge of the true value and is based on RPD calculations between repeated values. Precision of the project data was determined by analysis of replicate MS₁/MS₂, BS₁/BS₂, LCS₁/LCS₂, LCM₁/LCM₂, CRM₁/CRM₂, surrogate spikes and/or replicate project sample analysis (R₁/R₂) on a minimum frequency of one per batch. Physis' QM requires that for 95% of the compounds greater than 10 times the MDL, the percent RPD should be within the specified acceptance range.

BLANK SPIKES: BS is the introduction of a known concentration of analyte into the procedural blank. BS demonstrates performance of the preparation and analytical methods on a clean matrix void of potential matrix related interferences. The BS is performed in laboratory deionized water, making these recoveries a better indicator of the efficiency of the laboratory method per se.

MATRIX SPIKES: MS is the introduction of a known concentration of analyte into a sample. MS samples demonstrate the effect a particular project sample matrix has on the accuracy of a measurement. Individually, MS samples also indicate the bias of analytical measurements due to chemical interferences inherent in the in the specific project sample spiked. Intrinsic target analyte concentration in the specific project sample can also significantly impact MS recovery.

CERTIFIED REFERENCE MATERIALS: CRMs are materials of various matrices for which analytical information has been determined and certified by a recognized authority. These are used to provide a quantitative assessment of the accuracy of an analytical method. CRMs provide evidence that the laboratory preparation and analysis produces results that are comparable to those obtained by an independent organization.

LABORATORY CONTROL MATERIAL: LCM is provided because a suitable natural seawater CRM is not available and can be used to indicate accuracy of the method. Physis' internal LCM is seawater collected at ~800 meters in the Southern California San Pedro Basin and can be used as a reference for background concentrations in clean, natural seawater for comparison to project samples.

LABORATORY CONTROL SPIKES: LCS is the introduction of a known concentration of analyte into Physis' LCM. LCS samples were employed to assess the effect the seawater matrix has on the accuracy of a measurement. LCS also indicate the bias of this method due to chemical interferences inherent in the in the seawater matrix. Intrinsic LCM concentration can also significantly impact LCS recovery.

SURROGATES: A surrogate is a pure analyte unlikely to be found in any project sample, behaves similarly to the target analyte and most often used with organic analytical procedures. Surrogates are added in known concentration to all samples and are measured to indicate overall efficiency of the method including processing and analyses.

HOLDING TIME: Method recommended holding times are the length of time a project sample can be stored under specific conditions after collection and prior to analysis without significantly affecting the analyte's concentration. Holding times can be extended if preservation techniques are employed to reduce biodegradation, volatilization, oxidation, sorption, precipitation, and other physical and chemical processes.

SAMPLE STORAGE/RETENTION: In order to maintain chemical integrity prior to analysis, all samples submitted to Physis are refrigerated (liquids) or frozen (solids) upon receipt unless otherwise recommended by applicable methods. Solid samples are retained for 1 year from collection while liquid samples are retained until method recommended holding times elapse.

TOTAL/DISSOLVED FRACTION: In some instances, the results for the dissolved fraction may be higher than the total fraction for a particular analyte (e.g. trace metals). This is typically caused by the analytical variation for each result and indicates that the target analyte is primarily in the dissolved phase, within the sample.

PHYSIS QUALIFIER CODES

CODE	DEFINITION
#	see Case Narrative
ND	analyte not detected at or above the MDL
B	analyte was detected in the procedural blank greater than 10 times the MDL
E	analyte concentration exceeds the upper limit of the linear calibration range, reported value is estimated
H	sample received and/or analyzed past the recommended holding time
J	analyte was detected at a concentration below the RL and above the MDL, reported value is estimated
N	insufficient sample, analysis could not be performed
M	analyte was outside the specified accuracy and/or precision acceptance limits due to matrix interference. The associated B/BS were within limits, therefore the sample data was reported without further clarification
SH	analyte concentration in the project sample exceeded the spike concentration, therefore accuracy and/or precision acceptance limits do not apply
SL	analyte results were lower than 10 times the MDL, therefore accuracy and/or precision acceptance limits do not apply
NH	project sample was heterogeneous and sample homogeneity could not be readily achieved using routine laboratory practices, therefore accuracy and/or precision acceptance limits do not apply
Q	analyte was outside the specified QAPP acceptance limits for precision and/or accuracy but within Physis derived acceptance limits, therefore the sample data was reported without further clarification
R	Physis' QM allows for 5% of the target compounds greater than 10 times the MDL to be outside the specified acceptance limits for precision and/or accuracy. This is often due to random error and does not indicate any significant problems with the analysis of these project samples

CASE NARRATIVE

QUALIFIER NOTES

In addition to the use of analyte specific Physis Qualifier Codes where applicable, the following were also noted.

ND

MDL is listed due to report format restrictions; it is not used in reporting. Analytical results reported are ND at the RL.

BIANALYTICALS

REPORT

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Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 109632-R1	HALAWA WELLS UNITS 1 & 2	331-2	Matrix: Samplewater				Sampled: 08-Aug-23 10:00			Received: 11-Aug-23	
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-42058	15-Aug-23	23-Sep-23



Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 109632-R1	HALAWA WELLS UNITS 1 & 2 331-2	Matrix: Samplewater									
							Sampled:	08-Aug-23 10:00	Received:	11-Aug-23	
(d10-Acenaphthene)	EPA 625.1	% Recovery	79	1			Total		O-42058	15-Aug-23	23-Sep-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	90	1			Total		O-42058	15-Aug-23	23-Sep-23
(d12-Chrysene)	EPA 625.1	% Recovery	88	1			Total		O-42058	15-Aug-23	23-Sep-23
(d12-Perylene)	EPA 625.1	% Recovery	88	1			Total		O-42058	15-Aug-23	23-Sep-23
(d8-Naphthalene)	EPA 625.1	% Recovery	68	1			Total		O-42058	15-Aug-23	23-Sep-23
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42058	15-Aug-23	23-Sep-23



QUALITY CONTROL REPORT

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Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE SOURCE		ACCURACY		PRECISION		QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Sample ID: 109631-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:				
		Method: EPA 625.1		Batch ID: O-42058		Prepared: 15-Aug-23		Analyzed: 23-Sep-23					
Disalicylidenepropanediamine	Total	ND	1	0.05	0.1	µg/L							
Sample ID: 109631-BS1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:				
		Method: EPA 625.1		Batch ID: O-42058		Prepared: 15-Aug-23		Analyzed: 23-Sep-23					
Disalicylidenepropanediamine	Total	41.1	1	0.05	0.1	µg/L	50	0	82	50 - 150%	PASS		
Sample ID: 109631-BS2		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:				
		Method: EPA 625.1		Batch ID: O-42058		Prepared: 15-Aug-23		Analyzed: 23-Sep-23					
Disalicylidenepropanediamine	Total	40.1	1	0.05	0.1	µg/L	50	0	80	50 - 150%	PASS	2	30 PASS



Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODEc	
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 109631-B1		QAQC Procedural Blank				Matrix: BlankMatrix		Sampled:		Received:		
		Method: EPA 625.1				Batch ID: O-42058		Prepared: 15-Aug-23		Analyzed: 23-Sep-23		
(d10-Acenaphthene)	Total	95	1				% Recovery	100	95	27 - 133%	PASS	
(d10-Phenanthrene)	Total	101	1				% Recovery	100	101	43 - 129%	PASS	
(d12-Chrysene)	Total	96	1				% Recovery	100	96	52 - 144%	PASS	
(d12-Perylene)	Total	99	1				% Recovery	100	99	36 - 161%	PASS	
(d8-Naphthalene)	Total	87	1				% Recovery	100	87	25 - 125%	PASS	
1-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L						
1-Methylphenanthrene	Total	ND	1	0.001	0.005	µg/L						
2,3,5-Trimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L						
2,6-Dimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L						
2-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L						
Acenaphthene	Total	ND	1	0.001	0.005	µg/L						
Acenaphthylene	Total	ND	1	0.001	0.005	µg/L						
Anthracene	Total	ND	1	0.001	0.005	µg/L						
Benz[a]anthracene	Total	ND	1	0.001	0.005	µg/L						
Benzo[a]pyrene	Total	ND	1	0.001	0.005	µg/L						
Benzo[b]fluoranthene	Total	ND	1	0.001	0.005	µg/L						
Benzo[e]pyrene	Total	ND	1	0.001	0.005	µg/L						
Benzo[g,h,i]perylene	Total	ND	1	0.001	0.005	µg/L						
Benzo[k]fluoranthene	Total	ND	1	0.001	0.005	µg/L						
Biphenyl	Total	ND	1	0.001	0.005	µg/L						
Chrysene	Total	ND	1	0.001	0.005	µg/L						
Dibenz[a,h]anthracene	Total	ND	1	0.001	0.005	µg/L						
Dibenzo[a,l]pyrene	Total	ND	1	0.001	0.005	µg/L						

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Dibenzothiophene	Total	ND	1	0.001	0.005	µg/L							
Fluoranthene	Total	ND	1	0.001	0.005	µg/L							
Fluorene	Total	ND	1	0.001	0.005	µg/L							
Indeno[1,2,3-cd]pyrene	Total	ND	1	0.001	0.005	µg/L							
Naphthalene	Total	ND	1	0.001	0.005	µg/L							
Perylene	Total	ND	1	0.001	0.005	µg/L							
Phenanthrene	Total	ND	1	0.001	0.005	µg/L							
Pyrene	Total	ND	1	0.001	0.005	µg/L							



Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Sample ID: 109631-BS1		QAQC Procedural Blank				Matrix: BlankMatrix			Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-42058				Prepared: 15-Aug-23			Analyzed: 23-Sep-23				
(d10-Acenaphthene)	Total	93	1			% Recovery	100	0	93	27 - 133%	PASS		
(d10-Phenanthrene)	Total	98	1			% Recovery	100	0	98	43 - 129%	PASS		
(d12-Chrysene)	Total	97	1			% Recovery	100	0	97	52 - 144%	PASS		
(d12-Perylene)	Total	94	1			% Recovery	100	0	94	36 - 161%	PASS		
(d8-Naphthalene)	Total	86	1			% Recovery	100	0	86	25 - 125%	PASS		
1-Methylnaphthalene	Total	0.433	1	0.001	0.005	µg/L	0.5	0	87	31 - 128%	PASS		
1-Methylphenanthrene	Total	0.466	1	0.001	0.005	µg/L	0.5	0	93	66 - 127%	PASS		
2,3,5-Trimethylnaphthalene	Total	0.453	1	0.001	0.005	µg/L	0.5	0	91	55 - 122%	PASS		
2,6-Dimethylnaphthalene	Total	0.445	1	0.001	0.005	µg/L	0.5	0	89	48 - 120%	PASS		
2-Methylnaphthalene	Total	0.437	1	0.001	0.005	µg/L	0.5	0	87	47 - 130%	PASS		
Acenaphthene	Total	0.449	1	0.001	0.005	µg/L	0.5	0	90	53 - 131%	PASS		
Acenaphthylene	Total	0.457	1	0.001	0.005	µg/L	0.5	0	91	43 - 140%	PASS		
Anthracene	Total	0.451	1	0.001	0.005	µg/L	0.5	0	90	58 - 135%	PASS		
Benz[a]anthracene	Total	0.453	1	0.001	0.005	µg/L	0.5	0	91	55 - 145%	PASS		
Benzo[a]pyrene	Total	0.474	1	0.001	0.005	µg/L	0.5	0	95	51 - 143%	PASS		
Benzo[b]fluoranthene	Total	0.437	1	0.001	0.005	µg/L	0.5	0	87	46 - 165%	PASS		
Benzo[e]pyrene	Total	0.433	1	0.001	0.005	µg/L	0.5	0	87	42 - 152%	PASS		
Benzo[g,h,i]perylene	Total	0.457	1	0.001	0.005	µg/L	0.5	0	91	63 - 133%	PASS		
Benzo[k]fluoranthene	Total	0.452	1	0.001	0.005	µg/L	0.5	0	90	56 - 145%	PASS		
Biphenyl	Total	0.457	1	0.001	0.005	µg/L	0.5	0	91	56 - 119%	PASS		
Chrysene	Total	0.441	1	0.001	0.005	µg/L	0.5	0	88	56 - 141%	PASS		
Dibenz[a,h]anthracene	Total	0.442	1	0.001	0.005	µg/L	0.5	0	88	55 - 150%	PASS		
Dibenzo[a,l]pyrene	Total	0.537	1	0.001	0.005	µg/L	0.5	0	107	50 - 150%	PASS		

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE ^c
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Dibenzothiophene	Total	0.469	1	0.001	0.005	µg/L	0.5	0	94	46 - 126%	PASS		
Fluoranthene	Total	0.471	1	0.001	0.005	µg/L	0.5	0	94	60 - 146%	PASS		
Fluorene	Total	0.458	1	0.001	0.005	µg/L	0.5	0	92	58 - 131%	PASS		
Indeno[1,2,3-cd]pyrene	Total	0.379	1	0.001	0.005	µg/L	0.5	0	76	50 - 151%	PASS		
Naphthalene	Total	0.432	1	0.001	0.005	µg/L	0.5	0	86	41 - 126%	PASS		
Perylene	Total	0.44	1	0.001	0.005	µg/L	0.5	0	88	48 - 141%	PASS		
Phenanthrene	Total	0.467	1	0.001	0.005	µg/L	0.5	0	93	67 - 127%	PASS		
Pyrene	Total	0.468	1	0.001	0.005	µg/L	0.5	0	94	54 - 156%	PASS		



Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODEc	
							LEVEL	RESULT	%	LIMITS	%	LIMITS		
Sample ID: 109631-BS2		QAQC Procedural Blank				Matrix: BlankMatrix			Sampled:		Received:			
		Method: EPA 625.1				Batch ID: O-42058			Prepared: 15-Aug-23		Analyzed: 23-Sep-23			
(d10-Acenaphthene)	Total	94	1			% Recovery	100	0	94	27 - 133%	PASS	1	30	PASS
(d10-Phenanthrene)	Total	98	1			% Recovery	100	0	98	43 - 129%	PASS	0	30	PASS
(d12-Chrysene)	Total	98	1			% Recovery	100	0	98	52 - 144%	PASS	1	30	PASS
(d12-Perylene)	Total	97	1			% Recovery	100	0	97	36 - 161%	PASS	3	30	PASS
(d8-Naphthalene)	Total	89	1			% Recovery	100	0	89	25 - 125%	PASS	3	30	PASS
1-Methylnaphthalene	Total	0.436	1	0.001	0.005	µg/L	0.5	0	87	31 - 128%	PASS	0	30	PASS
1-Methylphenanthrene	Total	0.464	1	0.001	0.005	µg/L	0.5	0	93	66 - 127%	PASS	0	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.458	1	0.001	0.005	µg/L	0.5	0	92	55 - 122%	PASS	1	30	PASS
2,6-Dimethylnaphthalene	Total	0.45	1	0.001	0.005	µg/L	0.5	0	90	48 - 120%	PASS	1	30	PASS
2-Methylnaphthalene	Total	0.448	1	0.001	0.005	µg/L	0.5	0	90	47 - 130%	PASS	3	30	PASS
Acenaphthene	Total	0.455	1	0.001	0.005	µg/L	0.5	0	91	53 - 131%	PASS	1	30	PASS
Acenaphthylene	Total	0.461	1	0.001	0.005	µg/L	0.5	0	92	43 - 140%	PASS	1	30	PASS
Anthracene	Total	0.47	1	0.001	0.005	µg/L	0.5	0	94	58 - 135%	PASS	4	30	PASS
Benz[a]anthracene	Total	0.449	1	0.001	0.005	µg/L	0.5	0	90	55 - 145%	PASS	1	30	PASS
Benzo[a]pyrene	Total	0.473	1	0.001	0.005	µg/L	0.5	0	95	51 - 143%	PASS	0	30	PASS
Benzo[b]fluoranthene	Total	0.434	1	0.001	0.005	µg/L	0.5	0	87	46 - 165%	PASS	0	30	PASS
Benzo[e]pyrene	Total	0.433	1	0.001	0.005	µg/L	0.5	0	87	42 - 152%	PASS	0	30	PASS
Benzo[g,h,i]perylene	Total	0.474	1	0.001	0.005	µg/L	0.5	0	95	63 - 133%	PASS	4	30	PASS
Benzo[k]fluoranthene	Total	0.45	1	0.001	0.005	µg/L	0.5	0	90	56 - 145%	PASS	0	30	PASS
Biphenyl	Total	0.461	1	0.001	0.005	µg/L	0.5	0	92	56 - 119%	PASS	1	30	PASS
Chrysene	Total	0.44	1	0.001	0.005	µg/L	0.5	0	88	56 - 141%	PASS	0	30	PASS
Dibenz[a,h]anthracene	Total	0.46	1	0.001	0.005	µg/L	0.5	0	92	55 - 150%	PASS	4	30	PASS
Dibenzo[a,l]pyrene	Total	0.567	1	0.001	0.005	µg/L	0.5	0	113	50 - 150%	PASS	5	30	PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY			PRECISION		QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS		
Dibenzothiophene	Total	0.471	1	0.001	0.005	µg/L	0.5	0	94	46 - 126%	PASS	0	30	PASS
Fluoranthene	Total	0.464	1	0.001	0.005	µg/L	0.5	0	93	60 - 146%	PASS	1	30	PASS
Fluorene	Total	0.455	1	0.001	0.005	µg/L	0.5	0	91	58 - 131%	PASS	1	30	PASS
Indeno[1,2,3-cd]pyrene	Total	0.388	1	0.001	0.005	µg/L	0.5	0	78	50 - 151%	PASS	3	30	PASS
Naphthalene	Total	0.446	1	0.001	0.005	µg/L	0.5	0	89	41 - 126%	PASS	3	30	PASS
Perylene	Total	0.419	1	0.001	0.005	µg/L	0.5	0	84	48 - 141%	PASS	5	30	PASS
Phenanthrene	Total	0.466	1	0.001	0.005	µg/L	0.5	0	93	67 - 127%	PASS	0	30	PASS
Pyrene	Total	0.46	1	0.001	0.005	µg/L	0.5	0	92	54 - 156%	PASS	2	30	PASS

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PHYSIS
TENTATIVELY
IDENTIFIED COMPOUNDS

ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

Sample ID: Lab Blank B1_42058

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
33.2992	2.7688	1111	Anthracene-D10-	1719-06-8	92
22.6888	18.0194	7231	Butylated Hydroxytoluene	128-37-0	98
21.1605	4.1263	1656	2,6-Di-tert-butyl-4-hydroxy-4-methylcyclohexa-2,5-dien-1-one	10396-80-2	94
48.0852	3.5799	1437	Acetic acid n-octadecyl ester	822-23-1	98
10.0562	1.9062	765	1,5-Heptadien-4-one, 3,3,6-trimethyl-	546-49-6	89
54.6319	1.2879	517	Eicosyl acetate	822-24-2	98
48.0819	0.9102	365	Hexane, 2,3-dimethyl-	584-94-1	82
27.7652	0.5585	224	Hexanoic acid, 3,5,5-trimethyl-, 2-ethylhexyl ester	1000406-82-2	97
79.6264	0.4600	185	.gamma.-Sitosterol	83-47-6	87
21.5601	0.4354	175	4-Methoxy-3-(isopenten-2-yl)acetophenone	26931-99-7	90
30.0205	0.3256	131	Benzoic acid, 2-ethylhexyl ester	5444-75-7	98
25.6469	0.2474	99	2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	6846-50-0	94
25.6663	0.2242	90	Diethyl Phthalate	84-66-2	94

Concentration estimated using the response for Anthracene-d10

Sample ID: 109632

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
33.3026	6.9224	1111	Anthracene-D10-	1517-22-2	95
22.6704	5.2938	850	Butylated Hydroxytoluene	128-37-0	97
10.0561	4.6567	747	1,5-Heptadien-4-one, 3,3,6-trimethyl-	546-49-6	90
48.1396	1.1617	186	Acetic acid n-octadecyl ester	822-23-1	99
27.7636	0.9888	159	Hexanoic acid, 3,5,5-trimethyl-, 2-ethylhexyl ester	1000406-82-2	96
21.1536	0.9052	145	2,6-Di-tert-butyl-4-hydroxy-4-methylcyclohexa-2,5-dien-1-one	10396-80-2	88
10.3724	0.7111	114	Cyclopropane, 1,1,2,3-tetramethyl-	74752-93-5	89

Concentration estimated using the response for Anthracene-d10

PERFORMANCE CHAIN OF CUSTODY

TERRA ENVIRONMENTAL LABORATORIES, INC.
AURA

Innovative Solutions for Nature

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Chain of Custody Record



Client Information (Sub Contract Lab) Client Contact: _____ Shipping/Receiving: _____ Company: Physis Environmental Laboratories Address: 1904 Wright Circle, City: Anaheim State: CA, 92806 Phone: _____ Email: _____ Project Name: RED-HILL Site: Honolulu BWS Sites	Sampler: _____ Lab P#: _____ Arada, Rachelle E-Mail: Rachelle.Arada@eat.eurofins.com State of Origin: Hawaii Carrier/Tracking No(s): _____ COC No: 380-69581-1 Page: Page 1 of 1 Job #: 380-59488-1
---	--

Due Date Requested: 8/24/2023 TAT Requested (days): _____ W/O #: _____ Project #: 38001111 SSO/W#: _____	Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> SUB (625 PAH Physis LL (EAL) + TICs) 625 PAH Physis LL (EAL) + TICs Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> _____
--	---

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, S=Soil, O=Other, A=Asphalt, B=Brine, C=Coal, Ash)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:
HLAWA WELLS UNITS 1 & 2 (331-209-TP065) (390-68488-1)	8/8/23	10:00	Hawaiian	Water	X	X	2	See Attached Instructions

Possible Hazard Identification
 Unconfirmed: _____
 Deliverable Requested: I, II, III, IV, Other (specify) _____
 Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Relinquished by: _____ Date/Time: _____	Received by: MOYE Tom 2 Date/Time: 8/11/23 1143	Company: Physis
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: _____	Company: _____
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: _____	Company: _____

Custody Seals Intact: **Δ Yes Δ No** Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks: _____



Project Iteration ID: 1407003-435
 Client Name: Eurofins Eaton Analytical
 Project Name: RED-HILL Project # 38001111 Job # 380-58488-1
 COC Page Number: 2 of 2
 Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

- Initials Received By: AT
- Date Received: 8/11/23
- Time Received: 1143
- Client Name: Eurofins
- Courier Information: (Please circle)
 - Client
 - UPS
 - Area Fast
 - DRS
 - FedEx
 - GSO/GLS
 - Ontrac
 - PAMS
 - PHYSIS Driver:
 - Start Time: _____
 - End Time: _____
 - Total Mileage: _____
 - Number of Pickups: _____
- Container Information: (Please put the # of containers or circle none)
 - Cooler
 - Styrofoam Cooler
 - Boxes
 - None
 - Carboy(s)
 - Carboy Trash Can(s)
 - Carboy Cap(s)
 - Other _____
- What type of ice was used: (Please circle any that apply)
 - Wet Ice
 - Blue Ice
 - Dry Ice
 - Water
 - None
- Randomly Selected Samples Temperature (°C): -0.9 Used I/R Thermometer # 1-2

Inspection Info

- Initials Inspected By: RT

Sample Integrity Upon Receipt:

- COC(s) included and completely filled out..... Yes / No
- All sample containers arrived intact..... Yes / No
- All samples listed on COC(s) are present..... Yes / No
- Information on containers consistent with information on COC(s)..... Yes / No
- Correct containers and volume for all analyses indicated..... Yes / No
- All samples received within method holding time..... Yes / No
- Correct preservation used for all analyses indicated..... Yes / No
- Name of sampler included on COC(s)..... Yes / No

Notes:

Chain of Custody Record



Client Information Client Contact: Dr. Ron Fenstermacher Phone: 808-748-5840		Lab PM: Arada, Rachelle E-Mail: Rachelle.Arada@et.eurofins.com	Carrier Tracking No(s): 380-27941-2757 2 State of Origin: Page 2 of 2
Due Date Requested: TAT Requested (days): Compliance Project: Δ No PO #: C20525101 exp 05312023 WO #:		Analysis Requested SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL) SUBCONTRACT - 8915 Diesel LL (EAL) and Motor Oil SUBCONTRACT - (MOD) 525plus PLUS TICs SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL) SUBCONTRACT - 537.1 DW_PREC - 537.1 Full List 533 - All Analytes	
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill Project #: 38001111 SSOW#:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Total Number of Containers: <input checked="" type="checkbox"/>	
Address: 630 South Beretania Street, Chemistry Lab City: Honolulu State, Zip: HI, 96843 Phone: 808-748-5091 (tel) Email: rfenstermacher@hbws.org	Sample Date: Sample Time: Sample Type (C=comp, G=grab): Matrix (W=water, S=solid, O=waste/oil, BT=TISSUE, A=ALT)	Preservation Code: MOANALUA WELLS AIEA GULCH WELLS PUMP2 AIEA WELLS PUMPS 1&2 (260) HALAWA WELLS UNITS 1&2 FB MOANALUA WELLS FB AIEA GULCH WELLS PUMP2 FB AIEA WELLS PUMPS 1&2 (260) FB HALAWA WELLS UNITS 1&2	Preservation Codes: M - Hexane N - None O - AsHClO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma L - EDA Other: Special Instructions/Note: Pump 1
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)			
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			
Empty Kit Relinquished by: [Redacted] Relinquished by: [Redacted] Date: 8/15/2023 1100 Company: HBWS		Method of Shipment: FED EX Date/Time: 08/10/2023 10:20 Company: EEAF	
Relinquished by: [Redacted] Date/Time:		Received by: G. REITNER Date/Time:	
Relinquished by:		Received by:	
Custody Seals Intact: Δ Yes Δ No Custody Seal No		Cooler Temperature(s) °C and Other Remarks: (1) 4.4-0.2=4.2 (2) 3-0.2=2.8 (3) 5.5-0.1=5.4 (75-2A)	



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

Chain of Custody Record



Environment Testing
America

Client Information			Lab PM			Carrier Tracking Net(s)			COC No					
Client Contact: Dr. Ron Fenstermacher			Arada, Rachelle			380-27941-2757 2			Page					
City & County of Honolulu			E-Mail: Rachelle.Arada@et.eurofins.com			State of Origin			Page 2 of 2					
Address: 630 South Beretania Street, Chemistry Lab			Due Date Requested:			Analysis Requested			Preservation Codes:					
City: Honolulu			TAT Requested (days):			525_2_PREC - (MOD) 525plus PLUS TICs			A - HCL					
State, Zip: HI, 96843			Compliance Project: Δ No			537_1_LW_PREC - 537.1 Full List			B - NaOH					
Phone: 808-748-5091 (tel)			FO #: C20525101 exp 05312023			SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)			C - Zn Acetate					
Email: rfenstermacher@hbws.org			WO #:			SUBCONTRACT - 8915 Diesel LL (EAL) and Motor Oil			D - Nitric Acid					
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill			Project #: 38001111			SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)			E - NaHSO4					
Site:			SSOW#:			SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs			F - MeOH					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/oil, BT=TISSUE, AL=AL)	Field Filtered Sample (Yes or No) <th>Perform MS/MSD (Yes or No) <th>R</th> <th>R</th> <th>RA</th> <th>RA</th> <th>Y</th> <th>N</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </th>	Perform MS/MSD (Yes or No) <th>R</th> <th>R</th> <th>RA</th> <th>RA</th> <th>Y</th> <th>N</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th>	R	R	RA	RA	Y	N	Total Number of Containers	Special Instructions/Note:
MOANALUA WELLS				Water										
AIEA GULCH WELLS PUMP2				Water										
AIEA WELLS PUMPS 1&2 (260)	8/8/2023	10:00	G	Water							33			Pump 1
HALAWA WELLS UNITS 1&2				Water										
FB MOANALUA WELLS				Water										
FB AIEA GULCH WELLS PUMP2				Water										
FB AIEA WELLS PUMPS 1&2 (260)				Water										
FB HALAWA WELLS UNITS 1&2	8/8/2023			Water										
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)														
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: ① 7330 0548 3332 ② 9430 0548 3324 ③ 7730 0548 3335														
Method of Shipment: FED EX ③ 7730 0548 3335 Date/Time: 08/10/2023 10:20 Received by: <i>W. D. FETNER</i> Company: FEAP Received by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____ Cooler Temperature(s) °C and Other Remarks: ① 44°-02°42 (2) 1.3°-0.2°=1.1° (3) 3.5°-0.2°-3.6° (752A) <i>66L Frozen</i>														

Ver 01/16/2019

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-58488-2

Login Number: 58488
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

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.	False	Containers recd broken. Sufficient sample in remaining containers for analysis.
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	

