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

ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/29/2023 9:56:54 PM

JOB DESCRIPTION

RED-HILL

JOB NUMBER

380-67025-2

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

Job Notes

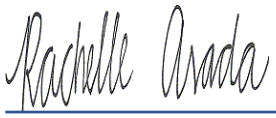
This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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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Authorized for release by
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Table of Contents

Definitions/Glossary

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

Job ID: 380-67025-2

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.
¤	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

Job ID: 380-67025-2

Laboratory: Eurofins Eaton Analytical Pomona

Narrative

Job Narrative
380-67025-2

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 10/13/2023 9:45 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 4.2°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: 380-67025-2

Client Sample ID: HALAWA WELLS PUMP 1 — Lab Sample ID: 380-67025-1

No Detections.

Client Sample ID: TB: HALAWA WELLS PUMP 1 — Lab Sample ID: 380-67025-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: HALAWA WELLS PUMP 1

Date Collected: 10/12/23 11:00
Date Received: 10/13/23 09:45

Lab Sample ID: 380-67025-1

Matrix: Drinking Water

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		10/19/23 00:00	11/17/23 06:37	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Acenaphthene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Acenaphthylene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Anthracene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Biphenyl	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Chrysene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Dibenzothiophene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		10/19/23 00:00	11/17/23 06:37	1
Fluoranthene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Fluorene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Naphthalene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Perylene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Phenanthrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1
Pyrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/17/23 06:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*48*		*27 - 133*	*10/19/23 00:00*	*11/17/23 06:37*	*1*
(d10-Phenanthrene)	*50*		*43 - 129*	*10/19/23 00:00*	*11/17/23 06:37*	*1*
(d12-Chrysene)	*78*		*52 - 144*	*10/19/23 00:00*	*11/17/23 06:37*	*1*
(d12-Perylene)	*81*		*36 - 161*	*10/19/23 00:00*	*11/17/23 06:37*	*1*
(d8-Naphthalene)	*48*		*25 - 125*	*10/19/23 00:00*	*11/17/23 06:37*	*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			10/16/23 19:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*83*		*60 - 140*		*10/16/23 19:54*	*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	0.026		mg/L			10/23/23 15:40	1
JP5	ND	U	0.052		mg/L			10/23/23 15:40	1
JP8	ND	U	0.052		mg/L			10/23/23 15:40	1
MOTOR OIL	ND	U	0.052		mg/L			10/23/23 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*65*		*60 - 130*		*10/23/23 15:40*	*1*

Client Sample ID: HALAWA WELLS PUMP 1

Lab Sample ID: 380-67025-1

Date Collected: 10/12/23 11:00

Matrix: Drinking Water

Date Received: 10/13/23 09:45

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
HEXACOSANE	*88*		*60 - 130*		*10/23/23 15:40*	*1*

Client Sample ID: TB: HALAWA WELLS PUMP 1

Lab Sample ID: 380-67025-2

Date Collected: 10/12/23 11:00

Matrix: Water

Date Received: 10/13/23 09:45

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			10/16/23 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*82*		*60 - 140*		*10/16/23 20:32*	*1*

Surrogate Summary

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

Job ID: 380-67025-2

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

Matrix: BlankMatrix **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		Acenapht	Phenanth	CRY	NPT	PRY			
Lab Sample ID	Client Sample ID	(27-133)	(43-129)	(52-144)	(25-125)	(36-161)			
112053-B1	Method Blank	88	93	80	90	85			
112053-BS1	Lab Control Sample	91	95	85	95	86			
112053-BS2	Lab Control Sample Dup	89	97	87	90	90			

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**

		Percent Surrogate Recovery (Acceptance Limits)							
		Acenapht	Phenanth	CRY	NPT	PRY			
Lab Sample ID	Client Sample ID	(27-133)	(43-129)	(52-144)	(25-125)	(36-161)			
380-67025-1	HALAWA WELLS PUMP 1	48	50	78	48	81			

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**

		Percent Surrogate Recovery (Acceptance Limits)							
		BFB							
Lab Sample ID	Client Sample ID	(60-140)							
380-67025-1	HALAWA WELLS PUMP 1	83							

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)							
		BFB							
Lab Sample ID	Client Sample ID	(60-140)							
380-67025-2	TB: HALAWA WELLS PUMP 1	82							

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Surrogate Summary

Client: City & County of Honolulu
Job ID: 380-67025-2
Project/Site: RED-HILL

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

Matrix: WATER **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB
Lab Sample ID	Client Sample ID	
23VG39J11B	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)
		BFB
Lab Sample ID	Client Sample ID	(70-130)
23VG39J11C	LCD	101
23VG39J11L	Lab Control Sample	98

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)	
		BB	XACOSA
Lab Sample ID	Client Sample ID	(60-130)	(60-130)
380-67025-1	HALAWA WELLS PUMP 1	65	88

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)	
		BB	XACOSA
Lab Sample ID	Client Sample ID		
23DSJ024WB	Method Blank		

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)	
		BB	XACOSA
Lab Sample ID	Client Sample ID	(60-130)	(60-130)
23DSJ024WL	Lab Control Sample	70	89
23J5J024WL	Lab Control Sample	75	88
23J8J024WL	Lab Control Sample	95	89

Surrogate Legend
BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

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

Lab Sample ID: 112053-B1
Matrix: BlankMatrix
Analysis Batch: O-42148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-42148_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Acenaphthene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Acenaphthylene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Anthracene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Biphenyl	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Chrysene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Dibenzothiophene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		10/19/23 00:00	11/16/23 14:50	1
Fluoranthene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Fluorene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Naphthalene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Perylene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Phenanthrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1
Pyrene	ND		0.005	0.001	µg/L		10/19/23 00:00	11/16/23 14:50	1

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*88*		*27 - 133*	*10/19/23 00:00*	*11/16/23 14:50*	*1*
(d10-Phenanthrene)	*93*		*43 - 129*	*10/19/23 00:00*	*11/16/23 14:50*	*1*
(d12-Chrysene)	*80*		*52 - 144*	*10/19/23 00:00*	*11/16/23 14:50*	*1*
(d12-Perylene)	*85*		*36 - 161*	*10/19/23 00:00*	*11/16/23 14:50*	*1*
(d8-Naphthalene)	*90*		*25 - 125*	*10/19/23 00:00*	*11/16/23 14:50*	*1*

Lab Sample ID: 112053-BS1
Matrix: BlankMatrix
Analysis Batch: O-42148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-42148_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.5	0.438		µg/L		88	31 - 128
1-Methylphenanthrene	0.5	0.479		µg/L		96	66 - 127
2,3,5-Trimethylnaphthalene	0.5	0.451		µg/L		90	55 - 122
2,6-Dimethylnaphthalene	0.5	0.428		µg/L		86	48 - 120
2-Methylnaphthalene	0.5	0.445		µg/L		89	47 - 130
Acenaphthene	0.5	0.442		µg/L		88	53 - 131
Acenaphthylene	0.5	0.449		µg/L		90	43 - 140
Anthracene	0.5	0.463		µg/L		93	58 - 135

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

Lab Sample ID: 112053-BS1
Matrix: BlankMatrix
Analysis Batch: O-42148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-42148_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benz[a]anthracene			0.5	0.44		µg/L		88	55 - 145		
Benzo[a]pyrene			0.5	0.44		µg/L		88	51 - 143		
Benzo[b]fluoranthene			0.5	0.49		µg/L		98	46 - 165		
Benzo[e]pyrene			0.5	0.462		µg/L		92	42 - 152		
Benzo[g,h,i]perylene			0.5	0.448		µg/L		90	63 - 133		
Benzo[k]fluoranthene			0.5	0.414		µg/L		83	56 - 145		
Biphenyl			0.5	0.432		µg/L		86	56 - 119		
Chrysene			0.5	0.399		µg/L		80	56 - 141		
Dibenz[a,h]anthracene			0.5	0.68		µg/L		136	55 - 150		
Dibenzo[a,l]pyrene			1	1.33		µg/L		133	50 - 150		
Dibenzothiophene			0.5	0.461		µg/L		92	46 - 126		
Disalicylidenepropanediamine			50	28.8		µg/L		58	50 - 150		
Fluoranthene			0.5	0.496		µg/L		99	60 - 146		
Fluorene			0.5	0.439		µg/L		88	58 - 131		
Indeno[1,2,3-cd]pyrene			0.5	0.727		µg/L		145	50 - 151		
Naphthalene			0.5	0.454		µg/L		91	41 - 126		
Perylene			0.5	0.442		µg/L		88	48 - 141		
Phenanthrene			0.5	0.46		µg/L		92	67 - 127		
Pyrene			0.5	0.505		µg/L		101	54 - 156		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
(d10-Acenaphthene)	*91*		*27 - 133*
(d10-Phenanthrene)	*95*		*43 - 129*
(d12-Chrysene)	*85*		*52 - 144*
(d12-Perylene)	*86*		*36 - 161*
(d8-Naphthalene)	*95*		*25 - 125*

Lab Sample ID: 112053-BS2
Matrix: BlankMatrix
Analysis Batch: O-42148

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-42148_P

Analyte			Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			0.5	0.431		µg/L		86	31 - 128	2	30
1-Methylphenanthrene			0.5	0.489		µg/L		98	66 - 127	2	30
2,3,5-Trimethylnaphthalene			0.5	0.448		µg/L		90	55 - 122	0	30
2,6-Dimethylnaphthalene			0.5	0.435		µg/L		87	48 - 120	1	30
2-Methylnaphthalene			0.5	0.434		µg/L		87	47 - 130	2	30
Acenaphthene			0.5	0.431		µg/L		86	53 - 131	2	30
Acenaphthylene			0.5	0.442		µg/L		88	43 - 140	2	30
Anthracene			0.5	0.463		µg/L		93	58 - 135	0	30
Benz[a]anthracene			0.5	0.447		µg/L		89	55 - 145	1	30
Benzo[a]pyrene			0.5	0.429		µg/L		86	51 - 143	2	30
Benzo[b]fluoranthene			0.5	0.503		µg/L		101	46 - 165	3	30
Benzo[e]pyrene			0.5	0.471		µg/L		94	42 - 152	2	30
Benzo[g,h,i]perylene			0.5	0.464		µg/L		93	63 - 133	3	30
Benzo[k]fluoranthene			0.5	0.4		µg/L		80	56 - 145	4	30
Biphenyl			0.5	0.424		µg/L		85	56 - 119	1	30
Chrysene			0.5	0.407		µg/L		81	56 - 141	1	30

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

Lab Sample ID: 112053-BS2
Matrix: BlankMatrix
Analysis Batch: O-42148

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-42148_P

Analyte			Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenz[a,h]anthracene			0.5	0.703		µg/L		141	55 - 150	4	30
Dibenzo[a,l]pyrene			1	1.4		µg/L		140	50 - 150	5	30
Dibenzothiophene			0.5	0.46		µg/L		92	46 - 126	0	30
Disalicylidenepropanediamine			50	34.1		µg/L		68	50 - 150	16	30
Fluoranthene			0.5	0.509		µg/L		102	60 - 146	3	30
Fluorene			0.5	0.443		µg/L		89	58 - 131	1	30
Indeno[1,2,3-cd]pyrene			0.5	0.745		µg/L		149	50 - 151	3	30
Naphthalene			0.5	0.441		µg/L		88	41 - 126	3	30
Perylene			0.5	0.458		µg/L		92	48 - 141	4	30
Phenanthrene			0.5	0.459		µg/L		92	67 - 127	0	30
Pyrene			0.5	0.52		µg/L		104	54 - 156	3	30

Surrogate	*LCS DUP %Recovery*	*LCS DUP Qualifier*	*Limits*
(d10-Acenaphthene)	*89*		*27 - 133*
(d10-Phenanthrene)	*97*		*43 - 129*
(d12-Chrysene)	*87*		*52 - 144*
(d12-Perylene)	*90*		*36 - 161*
(d8-Naphthalene)	*90*		*25 - 125*

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

Lab Sample ID: 23VG39J11B
Matrix: WATER
Analysis Batch: 23VG39J11

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			10/16/23 15:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE					*10/16/23 15:26*	*1*

Lab Sample ID: 23VG39J11L
Matrix: WATER
Analysis Batch: 23VG39J11

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	0.429		mg/L		86	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOFLUOROBENZENE	*98*		*70 - 130*

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

Lab Sample ID: 23DSJ024WB
Matrix: WATER
Analysis Batch: 23DSJ024W

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			10/23/23 13:28	1
JP5	ND	U	0.05		mg/L			10/23/23 13:28	1
JP8	ND	U	0.05		mg/L			10/23/23 13:28	1
MOTOR OIL	ND	U	0.05		mg/L			10/23/23 13:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE					*10/23/23 13:28*	*1*
HEXACOSANE					*10/23/23 13:28*	*1*

Lab Sample ID: 23DSJ024WL
Matrix: WATER
Analysis Batch: 23DSJ024W

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	2.1		mg/L		84	50 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*70*		*60 - 130*
HEXACOSANE	*89*		*60 - 130*

Lab Sample ID: 23J5J024WL
Matrix: WATER
Analysis Batch: 23DSJ024W

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	1.71		mg/L		68	30 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*75*		*60 - 130*
HEXACOSANE	*88*		*60 - 130*

Lab Sample ID: 23J8J024WL
Matrix: WATER
Analysis Batch: 23DSJ024W

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
JP8			2.5	2.3		mg/L		92	30 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*95*		*60 - 130*
HEXACOSANE	*89*		*60 - 130*

Subcontract

Analysis Batch: O-42148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-67025-1	HALAWA WELLS PUMP 1	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-42148_P
112053-B1	Method Blank	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-42148_P
112053-BS1	Lab Control Sample	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-42148_P
112053-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-42148_P

Analysis Batch: 23DSJ024W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-67025-1	HALAWA WELLS PUMP 1	Total/NA	Drinking Water	8015 LL DRO/MRO/JP5/JP8	
23DSJ024WB	Method Blank	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
23DSJ024WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
23J5J024WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
23J8J024WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	

Analysis Batch: 23VG39J11

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-67025-1	HALAWA WELLS PUMP 1	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-67025-2	TB: HALAWA WELLS PUMP 1	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
23VG39J11B	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
23VG39J11L	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Prep Batch: O-42148_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-67025-1	HALAWA WELLS PUMP 1	Total/NA	Drinking Water	EPA_625	
112053-B1	Method Blank	Total/NA	BlankMatrix	EPA_625	
112053-BS1	Lab Control Sample	Total/NA	BlankMatrix	EPA_625	
112053-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	EPA_625	

Lab Chronicle

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

Job ID: 380-67025-2

Client Sample ID: HALAWA WELLS PUMP 1

Lab Sample ID: 380-67025-1

Date Collected: 10/12/23 11:00

Matrix: Drinking Water

Date Received: 10/13/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA_625		1	O-42148_P			10/19/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-42148	YC		11/17/23 06:37
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VG39J11	SCerva		10/16/23 19:54
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	23DSJ024W	SDees		10/23/23 15:40

Client Sample ID: TB: HALAWA WELLS PUMP 1

Lab Sample ID: 380-67025-2

Date Collected: 10/12/23 11:00

Matrix: Water

Date Received: 10/13/23 09:45

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	23VG39J11	SCerva		10/16/23 20:32

Laboratory References:

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

Method Summary

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

Job ID: 380-67025-2

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: 380-67025-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-67025-1	HALAWA WELLS PUMP 1	Drinking Water	10/12/23 11:00	10/13/23 09:45
380-67025-2	TB: HALAWA WELLS PUMP 1	Water	10/12/23 11:00	10/13/23 09:45

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

Date: 11-01-2023
EMAX Batch No.: 23J153

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 380-67025

Enclosed is the Laboratory report for samples received on 10/16/23.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-67025-1	J153-01	10/12/23	WATER	TPH GASOLINE
				TPH
380-67025-2	J153-02	10/12/23	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

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

NELAP Accredited Certificate Number CA002912023-25
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
California ELAP Accredited Certificate Number 2672

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

23J153

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-85076.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: EMAX Laboratories Inc		Accreditations Required (See note): State - Hawaii		Job #: 380-67025-1
Address: 3051 Fujita Street, ,	Due Date Requested: 10/25/2023			
City: Torrance	TAT Requested (days):			
State, Zip: CA, 90505				
Phone:	PO #:			
Email:	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Honolulu BWS Sites	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

	Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (8015 LL DRO/MRO/JP5/JP8)/ 8015 LL DRO/MRO/JP5/JP8	SUB (8015 Gas (Purgeable) LL (EAL))/ 8015 Gas (Purgeable) LL (EAL)	Total Number of containers	Special Instructions/Note:
				Preservation Code:							
1	HALAWA WELLS PUMP 1 (380-67025-1)	10/12/23	11:00 Hawaiian		Water			X	X	6	See Attached Instructions
2	TB: HALAWA WELLS PUMP 1 (380-67025-2)	10/12/23	11:00 Hawaiian		Water				X	2	See Attached Instructions

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/tests/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*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/16/23 1340	EEA		10/16/23 13.40	EMAX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.5/4.3° *CF:-0.2

EMAX LABORATORIES, INC.

REFERENCE: EMAX-SM02 Rev. 12

SAMPLE RECEIPT FORM 1

Type of Delivery	Airbill / Tracking Number	ECN 23J153
☐ Fedex ☐ UPS ☐ GSO ☐ Others		Recipient Cecilia Chavez
☐ EMAX Courier ☑ Client Delivery		Date 10/16/23 Time 13:40

COC INSPECTION

☑ Client Name	☑ Client PM/FC	☐ Sampler Name	☑ Sampling Date/Time	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☐ Courier Signature	☑ Analysis Required	☐ Preservative (if any)	☑ TAT
Safety Issues (if any)	☐ High concentrations expected	☐ From Superfund Site	☐ Rad screening required		

Note: _____

PACKAGING INSPECTION

Container	☑ Cooler	☐ Box	☐ Other			
Condition	☐ Custody Seal	☐ Intact	☐ Damaged			
Packaging correction factor: -0.2	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☐ _____	
Temperatures (Cool, ≤6 °C but not frozen)	☑ Cooler 1 4.5/4.3 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C	
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C	
Thermometer:	*A - S/N 221852768*	*B - S/N 224925379*	*C - S/N 230044897*	*D - S/N 210760237*		

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

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1	5,6	D1	JP5/JP8 not on label	R1

10/16/23

10/17/23

☐ 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

☐ Continue to next page.

LEGEND:

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

REVIEWS:

Sample Labeling maria rivera Date 10/16/23 — 10/16/23

SRF _____ Date 10/16/23

PM _____ Date 10/17/23

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

380-67025

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

SDG#: 23J153

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-67025

SDG : 23J153

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

A total of two(2) water samples were received on 10/16/23 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. VG39J11B - 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. VG39J11L/VG39J11C 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 J145-01M/J145-01S. 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 : EUROFINS EATON ANALYTICAL
Project : 380-67025

SDG NO. : 23J153
Instrument ID : GCT039

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VG39J11B	1	NA	10/16/2315:26	10/16/2315:26	EJ16005A	EJ16004A	23VG39J11	Method Blank
LCS1W	VG39J11L	1	NA	10/16/2316:05	10/16/2316:05	EJ16006A	EJ16004A	23VG39J11	Lab Control Sample (LCS)
LCD1W	VG39J11C	1	NA	10/16/2316:43	10/16/2316:43	EJ16007A	EJ16004A	23VG39J11	LCS Duplicate
380-67025-1	J153-01	1	NA	10/16/2319:54	10/16/2319:54	EJ16012A	EJ16004A	23VG39J11	Field Sample
380-67025-2	J153-02	1	NA	10/16/2320:32	10/16/2320:32	EJ16013A	EJ16004A	23VG39J11	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/12/23 11:00
Project	: 380-67025	Date Received:	10/16/23
Batch No.	: 23J153	Date Extracted:	10/16/23 19:54
Sample ID	: 380-67025-1	Date Analyzed:	10/16/23 19:54
Lab Samp ID:	J153-01	Dilution Factor:	1
Lab File ID:	EJ16012A	Matrix:	WATER
Ext Btch ID:	23VG39J11	% Moisture:	NA
Calib. Ref.:	EJ16004A	Instrument ID:	39

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	0.0331	0.0400	83	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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/12/23 11:00
Project	: 380-67025	Date Received:	10/16/23
Batch No.	: 23J153	Date Extracted:	10/16/23 20:32
Sample ID	: 380-67025-2	Date Analyzed:	10/16/23 20:32
Lab Samp ID:	J153-02	Dilution Factor:	1
Lab File ID:	EJ16013A	Matrix:	WATER
Ext Btch ID:	23VG39J11	% Moisture:	NA
Calib. Ref.:	EJ16004A	Instrument ID:	39

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	0.0328	0.0400	82	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

QC SUMMARIES

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/16/23 15:26
Project	: 380-67025	Date Received:	10/16/23
Batch No.	: 23J153	Date Extracted:	10/16/23 15:26
Sample ID	: MBLK1W	Date Analyzed:	10/16/23 15:26
Lab Samp ID:	VG39J11B	Dilution Factor:	1
Lab File ID:	EJ16005A	Matrix:	WATER
Ext Btch ID:	23VG39J11	% Moisture:	NA
Calib. Ref.:	EJ16004A	Instrument ID:	39

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	0.0322	0.0400	80	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 : 380-67025
BATCH NO. : 23J153
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: VG39J11B	VG39J11L	VG39J11C
LAB FILE ID	: EJ16005A	EJ16006A	EJ16007A
DATE PREPARED	: 10/16/23 15:26	10/16/23 16:05	10/16/23 16:43
DATE ANALYZED	: 10/16/23 15:26	10/16/23 16:05	10/16/23 16:43
PREP BATCH	: 23VG39J11	23VG39J11	23VG39J11
CALIBRATION REF	: EJ16004A	EJ16004A	EJ16004A

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	0.429	86	0.500	0.458	92	7	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0391	98	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 : 380-66857
BATCH NO. : 23J145
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-66857-1	380-66857-1MS	380-66857-1MSD
LAB SAMPLE ID	: J145-01	J145-01M	J145-01S
LAB FILE ID	: EJ16008A	EJ16009A	EJ16010A
DATE PREPARED	: 10/16/23 17:21	10/16/23 17:59	10/16/23 18:38
DATE ANALYZED	: 10/16/23 17:21	10/16/23 17:59	10/16/23 18:38
PREP BATCH	: 23VG39J11	23VG39J11	23VG39J11
CALIBRATION REF	: EJ16004A	EJ16004A	EJ16004A

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	0.453	91	0.500	0.483	97	6	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0403	101	0.0400	0.0416	104	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-67025

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 23J153

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-67025

SDG : 23J153

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 10/16/23 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. DSJ024WB - 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) LCS was analyzed. Percent recovery for Diesel was within LCS QC limits in DSJ024WL. 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. Diesel was within MS QC limits in 23J167-01M/23J167-01S. Refer to Matrix QC summary form for details.

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: 380-67025

SDG : 23J153

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 10/16/23 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. DSJ024WB - 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) LCS was analyzed. Percent recovery for JP5 was within LCS QC limits in J5J024WL. 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. JP5 was within MS QC limits in 23J167-01M/23J167-01S. Refer to Matrix QC summary form for details.

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: 380-67025

SDG : 23J153

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 10/16/23 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. DSJ024WB - 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) LCS was analyzed. Percent recovery for JP8 was within LCS QC limits in J8J024WL. 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. JP8 was within MS QC limits in 23J167-01M/23J167-01S. Refer to Matrix QC summary form for details.

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 : 380-67025

SDG NO. : 23J153
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSJ024WB	1	NA	10/23/2313:28	10/19/2315:00	LJ23010A	LJ23003A	23DSJ024W	Method Blank
LCS1W	DSJ024WL	1	NA	10/23/2313:47	10/19/2315:00	LJ23011A	LJ23003A	23DSJ024W	Lab Control Sample (LCS)
380-67025-1	J153-01	1	NA	10/23/2315:40	10/19/2315:00	LJ23017A	LJ23003A	23DSJ024W	Field Sample

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-67025

SDG NO. : 23J153
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSJ024WB	1	NA	10/23/2313:28	10/19/2315:00	LJ23010A	LJ23004A	23DSJ024W	Method Blank
LCS1W	J5J024WL	1	NA	10/23/2314:06	10/19/2315:00	LJ23012A	LJ23004A	23DSJ024W	Lab Control Sample (LCS)
380-67025-1	J153-01	1	NA	10/23/2315:40	10/19/2315:00	LJ23017A	LJ23004A	23DSJ024W	Field Sample

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-67025

SDG NO. : 23J153
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSJ024WB	1	NA	10/23/2313:28	10/19/2315:00	LJ23010A	LJ23005A	23DSJ024W	Method Blank
LCS1W	J8J024WL	1	NA	10/23/2314:25	10/19/2315:00	LJ23013A	LJ23005A	23DSJ024W	Lab Control Sample (LCS)
380-67025-1	J153-01	1	NA	10/23/2315:40	10/19/2315:00	LJ23017A	LJ23005A	23DSJ024W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/12/23 11:00
Project	: 380-67025	Date Received:	10/16/23
Batch No.	: 23J153	Date Extracted:	10/19/23 15:00
Sample ID	: 380-67025-1	Date Analyzed:	10/23/23 15:40
Lab Samp ID:	23J153-01	Dilution Factor:	1
Lab File ID:	LJ23017A	Matrix:	WATER
Ext Btch ID:	23DSJ024W	% Moisture:	NA
Calib. Ref.:	LJ23003A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.026	0.013
Motor Oil	ND	0.052	0.026

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.339	0.525	65	60-130
Hexacosane	0.116	0.131	88	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	: 950ml	Final Volume	: 5ml
Prepared by	: RGalan	Analyzed by	: SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/12/23 11:00
Project	: 380-67025	Date Received:	10/16/23
Batch No.	: 23J153	Date Extracted:	10/19/23 15:00
Sample ID	: 380-67025-1	Date Analyzed:	10/23/23 15:40
Lab Samp ID:	23J153-01	Dilution Factor:	1
Lab File ID:	LJ23017A	Matrix:	WATER
Ext Btch ID:	23DSJ024W	% Moisture:	NA
Calib. Ref.:	LJ23004A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP5	ND	0.052	0.026

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.339	0.525	65	60-130
Hexacosane	0.116	0.131	88	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 : 950ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/12/23 11:00
Project	: 380-67025	Date Received:	10/16/23
Batch No.	: 23J153	Date Extracted:	10/19/23 15:00
Sample ID	: 380-67025-1	Date Analyzed:	10/23/23 15:40
Lab Samp ID:	23J153-01	Dilution Factor:	1
Lab File ID:	LJ23017A	Matrix:	WATER
Ext Btch ID:	23DSJ024W	% Moisture:	NA
Calib. Ref.:	LJ23005A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP8	ND	0.052	0.026

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.339	0.525	65	60-130
Hexacosane	0.116	0.131	88	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 : 950ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/19/23 15:00
Project	: 380-67025	Date Received:	10/19/23
Batch No.	: 23J153	Date Extracted:	10/19/23 15:00
Sample ID	: MBLK1W	Date Analyzed:	10/23/23 13:28
Lab Samp ID:	DSJ024WB	Dilution Factor:	1
Lab File ID:	LJ23010A	Matrix:	WATER
Ext Btch ID:	23DSJ024W	% Moisture:	NA
Calib. Ref.:	LJ23003A	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	0.341	0.500	68	60-130
Hexacosane	0.108	0.125	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	: 1000ml	Final Volume	: 5ml
Prepared by	: RGalan	Analyzed by	: SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-67025
BATCH NO. : 23J153
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSJ024WB	DSJ024WL
LAB FILE ID	: LJ23010A	LJ23011A
DATE PREPARED	: 10/19/23 15:00	10/19/23 15:00
DATE ANALYZED	: 10/23/23 13:28	10/23/23 13:47
PREP BATCH	: 23DSJ024W	23DSJ024W
CALIBRATION REF	: LJ23003A	LJ23003A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Diesel	ND	2.50	2.10	84	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.349	70	60-130
Hexacosane	0.125	0.111	89	60-130

MB: Method Blank sample LCS: Lab Control Sample

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/19/23 15:00
Project	: 380-67025	Date Received:	10/19/23
Batch No.	: 23J153	Date Extracted:	10/19/23 15:00
Sample ID	: MBLK1W	Date Analyzed:	10/23/23 13:28
Lab Samp ID:	DSJ024WB	Dilution Factor:	1
Lab File ID:	LJ23010A	Matrix:	WATER
Ext Btch ID:	23DSJ024W	% Moisture:	NA
Calib. Ref.:	LJ23004A	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	0.341	0.500	68	60-130
Hexacosane	0.108	0.125	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 : 1000ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-67025
BATCH NO. : 23J153
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSJ024WB	J5J024WL
LAB FILE ID	: LJ23010A	LJ23012A
DATE PREPARED	: 10/19/23 15:00	10/19/23 15:00
DATE ANALYZED	: 10/23/23 13:28	10/23/23 14:06
PREP BATCH	: 23DSJ024W	23DSJ024W
CALIBRATION REF	: LJ23004A	LJ23004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
JP5	ND	2.50	1.71	68	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.377	75	60-130
Hexacosane	0.125	0.110	88	60-130

MB: Method Blank sample LCS: Lab Control Sample

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/19/23 15:00
Project	: 380-67025	Date Received:	10/19/23
Batch No.	: 23J153	Date Extracted:	10/19/23 15:00
Sample ID	: MBLK1W	Date Analyzed:	10/23/23 13:28
Lab Samp ID:	DSJ024WB	Dilution Factor:	1
Lab File ID:	LJ23010A	Matrix:	WATER
Ext Btch ID:	23DSJ024W	% Moisture:	NA
Calib. Ref.:	LJ23005A	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	0.341	0.500	68	60-130
Hexacosane	0.108	0.125	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 : 1000ml Final Volume : 5ml
Prepared by : RGalan Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-67025
BATCH NO. : 23J153
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSJ024WB	J8J024WL
LAB FILE ID	: LJ23010A	LJ23013A
DATE PREPARED	: 10/19/23 15:00	10/19/23 15:00
DATE ANALYZED	: 10/23/23 13:28	10/23/23 14:25
PREP BATCH	: 23DSJ024W	23DSJ024W
CALIBRATION REF	: LJ23005A	LJ23005A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
JP8	ND	2.50	2.30	92	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.475	95	60-130
Hexacosane	0.125	0.112	90	60-130

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-67917
BATCH NO. : 23J167
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-67917-1	380-67917-1MS	380-67917-1MSD
LAB SAMPLE ID	: 23J167-01	23J167-01M	23J167-01S
LAB FILE ID	: LJ23018A	LJ23027A	LJ23020A
DATE PREPARED	: 10/19/23 15:00	10/19/23 15:00	10/19/23 15:00
DATE ANALYZED	: 10/23/23 16:18	10/23/23 19:06	10/23/23 16:55
PREP BATCH	: 23DSJ024W	23DSJ024W	23DSJ024W
CALIBRATION REF	: LJ23003A	LJ23003A	LJ23003A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.55	2.19	86	2.70	2.35	87	7	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.510	0.306	60	0.540	0.430	80	60-130
Hexacosane	0.127	0.125	98	0.135	0.134	99	60-130

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

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-67917
BATCH NO. : 23J167
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-67917-1	380-67917-1MS	380-67917-1MSD
LAB SAMPLE ID	: 23J167-01	23J167-01M	23J167-01S
LAB FILE ID	: LJ23018A	LJ23021A	LJ23022A
DATE PREPARED	: 10/19/23 15:00	10/19/23 15:00	10/19/23 15:00
DATE ANALYZED	: 10/23/23 16:18	10/23/23 17:14	10/23/23 17:33
PREP BATCH	: 23DSJ024W	23DSJ024W	23DSJ024W
CALIBRATION REF	: LJ23004A	LJ23004A	LJ23004A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP5	ND	2.62	1.71	65	2.85	1.88	66	9	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.525	0.436	83	0.570	0.404	71	60-130
Hexacosane	0.131	0.128	98	0.142	0.114	80	60-130

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

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-67917
BATCH NO. : 23J167
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-67917-1	380-67917-1MS	380-67917-1MSD
LAB SAMPLE ID	: 23J167-01	23J167-01M	23J167-01S
LAB FILE ID	: LJ23018A	LJ23023A	LJ23024A
DATE PREPARED	: 10/19/23 15:00	10/19/23 15:00	10/19/23 15:00
DATE ANALYZED	: 10/23/23 16:18	10/23/23 17:51	10/23/23 18:10
PREP BATCH	: 23DSJ024W	23DSJ024W	23DSJ024W
CALIBRATION REF	: LJ23005A	LJ23005A	LJ23005A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP8	ND	2.90	2.54	88	2.70	2.36	87	7	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.580	0.576	99	0.540	0.545	101	60-130
Hexacosane	0.145	0.140	97	0.135	0.139	103	60-130

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

November 20, 2023

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

Project Name: RED-HILL Project # 38001111 Job # 380-67025-1
Physis Project ID: 1407003-455

Dear Rachelle,

Enclosed are the analytical results for the sample submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 10/16/2023. 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,
misty mercier

Misty Mercier
714 602-5320
Extension 202
mistymercier@physislabs.com

PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-455

RED-HILL Project # 38001111 Job # 380-67025-1

Total Samples: 1

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
112054	Halawa Wells Units 1&2 P1	380-67025-1	10/12/2023	11:00	Samplewater	Not Specified

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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

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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

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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.

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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

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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.

ANALYTICAL REPORT

PHYSIS Project ID: 1407003-455
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-67025-1

Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 112054-R1	**Halawa Wells Units 1&2 P1 380-670**	**Matrix: Samplewater**						**Sampled:**	**12-Oct-23 11:00**	**Received:**	**16-Oct-23**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-42148	19-Oct-23	17-Nov-23

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 112054-R1	**Halawa Wells Units 1&2 P1 380-670**	**Matrix: Samplewater**					**Sampled:**	**12-Oct-23 11:00**		**Received:**	**16-Oct-23**
(d10-Acenaphthene)	EPA 625.1	% Recovery	48	1			Total		O-42148	19-Oct-23	17-Nov-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	50	1			Total		O-42148	19-Oct-23	17-Nov-23
(d12-Chrysene)	EPA 625.1	% Recovery	78	1			Total		O-42148	19-Oct-23	17-Nov-23
(d12-Perylene)	EPA 625.1	% Recovery	81	1			Total		O-42148	19-Oct-23	17-Nov-23
(d8-Naphthalene)	EPA 625.1	% Recovery	48	1			Total		O-42148	19-Oct-23	17-Nov-23
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
D benz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
D benzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
D benzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23

PHYSIS Project ID: 1407003-455
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-67025-1

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-42148	19-Oct-23	17-Nov-23
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42148	19-Oct-23	17-Nov-23

QUALITY CONTROL REPORT

Base/Neutral Extractable Compounds QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 112053-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**					**Received:**	
		Method: EPA 625.1				Batch ID: O-42148		Prepared: 19-Oct-23					Analyzed: 16-Nov-23	
Disalicylidenepropanediamin	Total	ND	1	0.05	0.1	µg/L								
Sample ID: 112053-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**					**Received:**	
		Method: EPA 625.1				Batch ID: O-42148		Prepared: 19-Oct-23					Analyzed: 16-Nov-23	
Disalicylidenepropanediamin	Total	28.8	1	0.05	0.1	µg/L	50	0	58	50 - 150%	PASS			
Sample ID: 112053-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**					**Received:**	
		Method: EPA 625.1				Batch ID: O-42148		Prepared: 19-Oct-23					Analyzed: 16-Nov-23	
Disalicylidenepropanediamin	Total	34.1	1	0.05	0.1	µg/L	50	0	68	50 - 150%	PASS	16	30 PASS	

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 112053-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
	Method: EPA 625.1					Batch ID: O-42148		Prepared: 19-Oct-23				Analyzed: 16-Nov-23	
(d10-Acenaphthene)	Total	88	1			% Recovery	100	88	27 - 133%	PASS			
(d10-Phenanthrene)	Total	93	1			% Recovery	100	93	43 - 129%	PASS			
(d12-Chrysene)	Total	80	1			% Recovery	100	80	52 - 144%	PASS			
(d12-Perylene)	Total	85	1			% Recovery	100	85	36 - 161%	PASS			
(d8-Naphthalene)	Total	90	1			% Recovery	100	90	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							
Dibenzothiophene	Total	ND	1	0.001	0.005	µg/L							

PHYSIS Project ID: 1407003-455
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-67025-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
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 LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 112053-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
		Method: EPA 625.1				Batch ID: O-42148		Prepared: 19-Oct-23				Analyzed: 16-Nov-23	
(d10-Acenaphthene)	Total	91	1			% Recovery	100	0	91	27 - 133%	PASS		
(d10-Phenanthrene)	Total	95	1			% Recovery	100	0	95	43 - 129%	PASS		
(d12-Chrysene)	Total	85	1			% Recovery	100	0	85	52 - 144%	PASS		
(d12-Perylene)	Total	86	1			% Recovery	100	0	86	36 - 161%	PASS		
(d8-Naphthalene)	Total	95	1			% Recovery	100	0	95	25 - 125%	PASS		
1-Methylnaphthalene	Total	0.438	1	0.001	0.005	µg/L	0.5	0	88	31 - 128%	PASS		
1-Methylphenanthrene	Total	0.479	1	0.001	0.005	µg/L	0.5	0	96	66 - 127%	PASS		
2,3,5-Trimethylnaphthalene	Total	0.451	1	0.001	0.005	µg/L	0.5	0	90	55 - 122%	PASS		
2,6-Dimethylnaphthalene	Total	0.428	1	0.001	0.005	µg/L	0.5	0	86	48 - 120%	PASS		
2-Methylnaphthalene	Total	0.445	1	0.001	0.005	µg/L	0.5	0	89	47 - 130%	PASS		
Acenaphthene	Total	0.442	1	0.001	0.005	µg/L	0.5	0	88	53 - 131%	PASS		
Acenaphthylene	Total	0.449	1	0.001	0.005	µg/L	0.5	0	90	43 - 140%	PASS		
Anthracene	Total	0.463	1	0.001	0.005	µg/L	0.5	0	93	58 - 135%	PASS		
Benz[a]anthracene	Total	0.44	1	0.001	0.005	µg/L	0.5	0	88	55 - 145%	PASS		
Benzo[a]pyrene	Total	0.44	1	0.001	0.005	µg/L	0.5	0	88	51 - 143%	PASS		
Benzo[b]fluoranthene	Total	0.49	1	0.001	0.005	µg/L	0.5	0	98	46 - 165%	PASS		
Benzo[e]pyrene	Total	0.462	1	0.001	0.005	µg/L	0.5	0	92	42 - 152%	PASS		
Benzo[g,h,i]perylene	Total	0.448	1	0.001	0.005	µg/L	0.5	0	90	63 - 133%	PASS		
Benzo[k]fluoranthene	Total	0.414	1	0.001	0.005	µg/L	0.5	0	83	56 - 145%	PASS		
Biphenyl	Total	0.432	1	0.001	0.005	µg/L	0.5	0	86	56 - 119%	PASS		
Chrysene	Total	0.399	1	0.001	0.005	µg/L	0.5	0	80	56 - 141%	PASS		
Dibenz[a,h]anthracene	Total	0.68	1	0.001	0.005	µg/L	0.5	0	136	55 - 150%	PASS		
Dibenzo[a,l]pyrene	Total	1.33	1	0.001	0.005	µg/L	1	0	133	50 - 150%	PASS		
Dibenzothiophene	Total	0.461	1	0.001	0.005	µg/L	0.5	0	92	46 - 126%	PASS		

PHYSIS Project ID: 1407003-455
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-67025-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Fluoranthene	Total	0.496	1	0.001	0.005	µg/L	0.5	0	99	60 - 146%	PASS			
Fluorene	Total	0.439	1	0.001	0.005	µg/L	0.5	0	88	58 - 131%	PASS			
Indeno[1,2,3-cd]pyrene	Total	0.727	1	0.001	0.005	µg/L	0.5	0	145	50 - 151%	PASS			
Naphthalene	Total	0.454	1	0.001	0.005	µg/L	0.5	0	91	41 - 126%	PASS			
Perylene	Total	0.442	1	0.001	0.005	µg/L	0.5	0	88	48 - 141%	PASS			
Phenanthrene	Total	0.46	1	0.001	0.005	µg/L	0.5	0	92	67 - 127%	PASS			
Pyrene	Total	0.505	1	0.001	0.005	µg/L	0.5	0	101	54 - 156%	PASS			

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 112053-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**		
		Method: EPA 625.1				Batch ID: O-42148		Prepared: 19-Oct-23				Analyzed: 16-Nov-23		
(d10-Acenaphthene)	Total	89	1			% Recovery	100	0	89	27 - 133%	PASS	2	30	PASS
(d10-Phenanthrene)	Total	97	1			% Recovery	100	0	97	43 - 129%	PASS	2	30	PASS
(d12-Chrysene)	Total	87	1			% Recovery	100	0	87	52 - 144%	PASS	2	30	PASS
(d12-Perylene)	Total	90	1			% Recovery	100	0	90	36 - 161%	PASS	5	30	PASS
(d8-Naphthalene)	Total	90	1			% Recovery	100	0	90	25 - 125%	PASS	5	30	PASS
1-Methylnaphthalene	Total	0.431	1	0.001	0.005	µg/L	0.5	0	86	31 - 128%	PASS	2	30	PASS
1-Methylphenanthrene	Total	0.489	1	0.001	0.005	µg/L	0.5	0	98	66 - 127%	PASS	2	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.448	1	0.001	0.005	µg/L	0.5	0	90	55 - 122%	PASS	0	30	PASS
2,6-Dimethylnaphthalene	Total	0.435	1	0.001	0.005	µg/L	0.5	0	87	48 - 120%	PASS	1	30	PASS
2-Methylnaphthalene	Total	0.434	1	0.001	0.005	µg/L	0.5	0	87	47 - 130%	PASS	2	30	PASS
Acenaphthene	Total	0.431	1	0.001	0.005	µg/L	0.5	0	86	53 - 131%	PASS	2	30	PASS
Acenaphthylene	Total	0.442	1	0.001	0.005	µg/L	0.5	0	88	43 - 140%	PASS	2	30	PASS
Anthracene	Total	0.463	1	0.001	0.005	µg/L	0.5	0	93	58 - 135%	PASS	0	30	PASS
Benz[a]anthracene	Total	0.447	1	0.001	0.005	µg/L	0.5	0	89	55 - 145%	PASS	1	30	PASS
Benzo[a]pyrene	Total	0.429	1	0.001	0.005	µg/L	0.5	0	86	51 - 143%	PASS	2	30	PASS
Benzo[b]fluoranthene	Total	0.503	1	0.001	0.005	µg/L	0.5	0	101	46 - 165%	PASS	3	30	PASS
Benzo[e]pyrene	Total	0.471	1	0.001	0.005	µg/L	0.5	0	94	42 - 152%	PASS	2	30	PASS
Benzo[g,h,i]perylene	Total	0.464	1	0.001	0.005	µg/L	0.5	0	93	63 - 133%	PASS	3	30	PASS
Benzo[k]fluoranthene	Total	0.4	1	0.001	0.005	µg/L	0.5	0	80	56 - 145%	PASS	4	30	PASS
Biphenyl	Total	0.424	1	0.001	0.005	µg/L	0.5	0	85	56 - 119%	PASS	1	30	PASS
Chrysene	Total	0.407	1	0.001	0.005	µg/L	0.5	0	81	56 - 141%	PASS	1	30	PASS
Dibenz[a,h]anthracene	Total	0.703	1	0.001	0.005	µg/L	0.5	0	141	55 - 150%	PASS	4	30	PASS
Dibenzo[a,l]pyrene	Total	1.4	1	0.001	0.005	µg/L	1	0	140	50 - 150%	PASS	5	30	PASS
Dibenzothiophene	Total	0.46	1	0.001	0.005	µg/L	0.5	0	92	46 - 126%	PASS	0	30	PASS

PHYSIS Project ID: 1407003-455
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-67025-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS		QA CODEc
Fluoranthene	Total	0.509	1	0.001	0.005	µg/L	0.5	0	102	60 - 146%	PASS	3	30	PASS	
Fluorene	Total	0.443	1	0.001	0.005	µg/L	0.5	0	89	58 - 131%	PASS	1	30	PASS	
Indeno[1,2,3-cd]pyrene	Total	0.745	1	0.001	0.005	µg/L	0.5	0	149	50 - 151%	PASS	3	30	PASS	
Naphthalene	Total	0.441	1	0.001	0.005	µg/L	0.5	0	88	41 - 126%	PASS	3	30	PASS	
Perylene	Total	0.458	1	0.001	0.005	µg/L	0.5	0	92	48 - 141%	PASS	4	30	PASS	
Phenanthrene	Total	0.459	1	0.001	0.005	µg/L	0.5	0	92	67 - 127%	PASS	0	30	PASS	
Pyrene	Total	0.52	1	0.001	0.005	µg/L	0.5	0	104	54 - 156%	PASS	3	30	PASS	

TENTATIVELY IDENTIFIED COMPOUNDS

Sample ID: 112054

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.3895	5.1717	1111	Anthracene-D10-	1719-06-8	98
10.4123	6.1643	1324	Cyclohexane, 1-methyl-2-propyl-	4291-79-6	94
10.3534	3.1279	672	Octane, 3-methyl-6-methylene-	74630-07-2	88
10.3533	2.9919	643	Pyrrolidine	123-75-1	89
10.6017	2.2890	492	Cyclopropane, 2-bromo-1,1,3-trimethyl-	36617-00-2	91
10.1774	1.7444	375	2,3,3-Trimethyl-1-hexene	1000113-52-1	87
10.1480	0.9122	196	1H-Tetrazole	288-94-8	87
10.2988	0.7202	155	Sulfurous acid, di(cyclohexylmethyl) ester	1010309-22-7	90
10.4665	0.5381	116	Octane, 3-methyl-6-methylene-	74630-07-2	88
32.1521	0.5071	109	Benzoic acid, 2-ethylhexyl ester	5444-75-7	98
10.4664	0.5045	108	1-Hexene, 4,5-dimethyl-	16106-59-5	88

Concentration estimated using the response for Anthracene-d10

Sample ID: Lab Blank B1_42148

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.3913	5.0825	1111	Antracene-D10	1517-22-2	96
10.6045	2.4869	544	Cyclobutanecarboxylic acid, 2-propenyl ester	1000282-60-3	88

Concentration estimated using the response for Anthracene-d10

CHAIN OF CUSTODY

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-85075.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Physis Environmental Laboratories		Accreditations Required (See note): State - Hawaii		Job #: 380-67025-1
Address: 1904 Wright Circle,	Due Date Requested: 10/25/2023			
City: Anaheim	TAT Requested (days):			
State, Zip: CA, 92806				
Phone:	PO #:			
Email:	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Honolulu BWS Sites	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (625 PAH Physis LL (EAL) + TICs)/ 625 PAH Physis LL (EAL) + TICs	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HALAWA WELLS PUMP 1 (380-67025-1)	10/12/23	11:00 Hawaiian		Water			X	2	See Attached Instructions

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/tests/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	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: [signature]	10/16/23 1200	EBA	[signature]	10/16/23 1200	physis
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 06/08/2021

PHYSIS
ENVIRONMENTAL LABORATORIES, INC.
Innovative Solutions for Nature

Sample Receipt Summary

Receiving Info

1. Initials Received By: YK
2. Date Received: 10/16/23
3. Time Received: 1200
4. Client Name: eurofins
5. Courier Information: (Please circle)
   - Client
   - UPS
   - Area Fast
   - DRS
   - FedEx
   - GSO/GLS
   - Ontrac
   - PAMS
   - PHYSIS Driven:
     - i. Start Time: _____
     - ii. End Time: _____
     - iii. Total Mileage: _____
     - iv. Number of Pickups: _____
6. Container Information: (Please put the # of containers or circle none)
   - 1 Cooler
   - ___ Styrofoam Cooler
   - ___ Boxes
   - None
   - ___ Carbon(s)
   - ___ Carboy Trash Can(s)
   - ___ Carboy Cap(s)
   - Other _____
7. What type of ice was used: (Please circle any that apply)
   - Wet Ice
   - Blue Ice
   - Dry Ice
   - Water
   - None
8. Randomly Selected Samples Temperature (°C): -1.9 Used I/R Thermometer # 1-2

Inspection Info

1. Initials Inspected By: _____

Sample Integrity Upon Receipt:

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

Notes:

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: RYAN GREER	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No:
Client Contact: Dr Ron Fenstemacher	Phone: 808-748-5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: AZ	Page: Page 1 of 1
Company: City and County of Honolulu	PWSID:			Job #:

Address	Due Date Requested:
630 South Beretania St. Chemistry Lab	
City: Honolulu	TAT Requested (days): Standard
State, Zip: Hawaii 96843	Compliance Project: Δ Yes Δ No
Phone: 808-748-5841	PO #: C20525101 exp 05312023
Email: RFENSTEMACHER@hbws org	WO #:
Project Name: RED HILL/HBWS Sites Event Desc RUSH Weekly Red Hill	Project #: 38001111
Site: Hawaii	SSOW#:

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537.1_DW_PREC - 537.1 Full List	533 - All Analytes	SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525 plus Tics	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)										Total Number of containers	Special Instructions/Note:
Preservation Code:							R	R	RA		RA											
AIEA GULCH WELLS PUMP 1																						
AIEA GULCH WELLS PUMP 2																						
AIEA WELLS PUMP 1																						
AIEA WELLS PUMP 2																						
HALAWA WELLS PUMP 1	10/12/23	1100	G				2	4	2	2												
HALAWA WELLS PUMP 2																						
MOANALUA WELLS																						
TB AIEA GULCH WELLS PUMP 1																						
TB: AIEA GULCH WELLS PUMP 2																						
TB AIEA WELLS PUMP (pump number)																						
TB HALAWA WELLS PUMP (pump number)	10/12/23	1100	G								2											

380-67025 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FED EX 773727790898
Relinquished by: [redacted]	Date/Time: 10/12/23 1200	Company: HBWS	Received by: C REITNER Date/Time: 10/13/2023 0945 Company: EEAP
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: Company:
Relinquished by:	Date/Time	Company	Received by: Date/Time Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 751A 4.3°-0.1°=4.2° GEL-FROZEN

Ver: 01/16/2019

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler	Lab PM	Carrier Tracking No(s)	COC No
		Arada, Rachelle		
Client Contact: Dr Ron Fenstemacher	Phone 808-748-5840	E-Mail Rachelle.Arada@et.eurofinsus.com	State of Origin	Page Page 1 of 1
Company City and County of Honolulu	PWSID			Job #

Address 630 South Beretania St. Chemistry Lab	Due Date Requested:	
City Honolulu	TAT Requested (days): Standard	
State, Zip Hawaii 96843	Compliance Project: Δ Yes Δ No	
Phone 808-748-5841	PO # C20525101 exp 05312023	
Email RFENSTEMACHER@hbws.org	WO #	
Project Name. RED HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill	Project # 38001111	
Site Hawaii	SSOW#	

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537.1_DW_PREC - 537.1 Full List	533 - All Analytes											Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	R	RA		RA									
AIEA GULCH WELLS PUMP 1																				
AIEA GULCH WELLS PUMP 2																				
AIEA WELLS PUMP 1																				
AIEA WELLS PUMP 2																				
HALAWA WELLS PUMP 1	10/12/23	1100	G			3	3													
HALAWA WELLS PUMP 2																				
MOANALUA WELLS																				
TB AIEA GULCH WELLS PUMP 1																				
TB AIEA GULCH WELLS PUMP 2	~~10/12/23~~																			
TB AIEA WELLS PUMP (pump number)																				
~~TB~~ HALAWA WELLS PUMP (pump number)	10/12/23	1100	G				1	1												

1B
RE 10/12/23

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date:	Time	Method of Shipment: FED EX 7737 2779 0898

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	10/12/23 1700	HBWS	G.PEITNER	10/13/2023 0945	EEAP
Relinquished by	Date/Time.	Company	Received by	Date/Time.	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No :	Cooler Temperature(s) °C and Other Remarks: (751A) 4.3°-0.1°-4.2° OEL-FROZEN

Ver: 01/16/2019

Page 80 of 81

11/29/2023

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-67025-2

Login Number: 67025
List Number: 1
Creator: Elyas, Matthew

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.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	