

ANALYTICAL REPORT

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Laboratory Job ID: 380-18572-1
Client Project/Site: RED-HILL

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

Attn: Mr. Erwin Kawata



Authorized for release by:
10/9/2022 5:33:00 PM

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

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



Rachelle Arada
Manager of Project Management
10/9/2022 5:33:00 PM





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Definitions/Glossary

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

Job ID: 380-18572-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

Glossary

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

Case Narrative

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

Job ID: 380-18572-1

Job ID: 380-18572-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative 380-18572-1

Comments

No additional comments.

Receipt

The samples were received on 8/25/2022 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3° C.

GC/MS Semi VOA

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

Subcontract non-Sister

See attached subcontract report.

Organic Prep

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

Subcontract Work

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

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.



Detection Summary

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

Job ID: 380-18572-1

Client Sample ID: HALAWA WELLS PUMP 1

Lab Sample ID: 380-18572-1

No Detections.

Client Sample ID: TB HALAWA WELLS PUMP 1

Lab Sample ID: 380-18572-2

No Detections.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-18572-1

Client Sample ID: HALAWA WELLS PUMP 1

Lab Sample ID: 380-18572-1

Date Collected: 08/24/22 09:20

Matrix: Water

Date Received: 08/25/22 10:10

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
2,4'-DDE	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
2,4'-DDT	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
2,4-Dinitrotoluene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
2,6-Dinitrotoluene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
4,4'-DDD	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
4,4'-DDE	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
4,4'-DDT	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Acenaphthene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Acenaphthylene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Acetochlor	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Alachlor	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1
alpha-BHC	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
alpha-Chlordane	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1
Anthracene	ND		0.020	ug/L		09/02/22 07:31	09/06/22 14:53	1
Atrazine	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1
Benz(a)anthracene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1
Benzo[a]pyrene	ND		0.020	ug/L		09/02/22 07:31	09/06/22 14:53	1
Benzo[b]fluoranthene	ND		0.020	ug/L		09/02/22 07:31	09/06/22 14:53	1
Benzo[g,h,i]perylene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1
Benzo[k]fluoranthene	ND		0.020	ug/L		09/02/22 07:31	09/06/22 14:53	1
beta-BHC	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Bromacil	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Butachlor	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1
Butylbenzylphthalate	ND		0.49	ug/L		09/02/22 07:31	09/06/22 14:53	1
Caffeine	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1
Chlorobenzilate	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Chloroneb	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Chlorothalonil (Draconil, Bravo)	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Chlorpyrifos	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1
Chrysene	ND		0.020	ug/L		09/02/22 07:31	09/06/22 14:53	1
delta-BHC	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Di(2-ethylhexyl)adipate	ND		0.59	ug/L		09/02/22 07:31	09/06/22 14:53	1
Bis(2-ethylhexyl) phthalate	ND		0.59	ug/L		09/02/22 07:31	09/06/22 14:53	1
Diazinon (Qualitative)	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Dibenz(a,h)an hracene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1
Diclorvos (DDVP)	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1
Dieldrin	ND		0.20	ug/L		09/02/22 07:31	09/06/22 14:53	1
Diethylphthalate	ND		0.49	ug/L		09/02/22 07:31	09/06/22 14:53	1
Dimethoate	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Dimethylphalate	ND		0.49	ug/L		09/02/22 07:31	09/06/22 14:53	1
Di-n-butyl phthalate	ND		0.98	ug/L		09/02/22 07:31	09/06/22 14:53	1
Di-n-octyl phthalate	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Endosulfan I (Alpha)	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Endosulfan II (Beta)	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Endosulfan sulfate	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Endrin	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
Endrin aldehyde	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1
EPTC	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-18572-1

Client Sample ID: HALAWA WELLS PUMP 1

Lab Sample ID: 380-18572-1

Date Collected: 08/24/22 09:20

Matrix: Water

Date Received: 08/25/22 10:10

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Fluoranthene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Fluorene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
gamma-Chlordane	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Heptachlor	ND		0.039	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Heptachlor epoxide (isomer B)	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Hexachlorobenzene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Hexachlorocyclopentadiene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Indeno[1,2,3-cd]pyrene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Isophorone	ND		0.49	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Lindane	ND		0.039	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Malathion	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Methoxychlor	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Metolachlor	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Metribuzin	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Molinate	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Naphthalene	ND		0.29	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Parathion	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Pendimethalin (Penoxaline)	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Total Permethrin (mixed isomers)	ND		0.20	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Phenanthrene	ND		0.039	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Propachlor	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Pyrene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Simazine	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Terbacil	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Terbutylazine	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Thiobencarb	ND		0.20	ug/L		09/02/22 07:31	09/06/22 14:53	1	
trans-Nonachlor	ND		0.049	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Trifluralin	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1	
1-Methylnaphthalene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1	
2-Methylnaphthalene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 14:53	1	
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L				09/02/22 07:31	09/06/22 14:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	95		70 - 130				09/02/22 07:31	09/06/22 14:53	1
Triphenylphosphate	95		70 - 130				09/02/22 07:31	09/06/22 14:53	1
Perylene-d12	92		70 - 130				09/02/22 07:31	09/06/22 14:53	1

Action Limit Summary

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

Job ID: 380-18572-1

Client Sample ID: HALAWA WELLS PUMP 1

Lab Sample ID: 380-18572-1

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Alachlor	ND		ug/L	2	0.049	525.2	Total/NA
Atrazine	ND		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	ND		ug/L	0.2	0.020	525.2	Total/NA
Di(2-ethylhexyl)adipate	ND		ug/L	400	0.59	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	ND		ug/L	6	0.59	525.2	Total/NA
Endrin	ND		ug/L	2	0.098	525.2	Total/NA
Heptachlor	ND		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	ND		ug/L	0.2	0.049	525.2	Total/NA
Hexachlorobenzene	ND		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	ND		ug/L	50	0.049	525.2	Total/NA
Lindane	ND		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	ND		ug/L	40	0.098	525.2	Total/NA
Simazine	ND		ug/L	4	0.049	525.2	Total/NA

Surrogate Summary

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2NMX	TPP	PRY
		(70-130)	(70-130)	(70-130)
380-18572-1	HALAWA WELLS PUMP 1	95	95	92
380-18572-1 DU	HALAWA WELLS PUMP 1	96	103	99
380-18938-C-3-A MS	Matrix Spike	97	110	97
LCS 380-16015/3-A	Lab Control Sample	97	106	101
LCSD 380-16015/4-A	Lab Control Sample Dup	97	94	93
MB 380-16015/1-A	Method Blank	97	100	97
MRL 380-16015/2-A	Lab Control Sample	96	105	97

Surrogate Legend

2NMX = 2-Nitro-m-xylene
TPP = Triphenylphosphate
PRY = Perylene-d12

QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 380-16015/1-A

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 16015

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
2,4'-DDD	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
2,4'-DDE	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
2,4'-DDT	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
2,4-Dinitrotoluene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
2,6-Dinitrotoluene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
4,4'-DDD	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
4,4'-DDE	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
4,4'-DDT	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Acenaphthene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Acenaphthylene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Acetochlor	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Alachlor	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
alpha-BHC	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
alpha-Chlordane	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Anthracene	ND		0.020	ug/L		09/02/22 07:31	09/06/22 12:04	1
Atrazine	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Benz(a)anthracene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Benzo[a]pyrene	ND		0.020	ug/L		09/02/22 07:31	09/06/22 12:04	1
Benzo[b]fluoranthene	ND		0.020	ug/L		09/02/22 07:31	09/06/22 12:04	1
Benzo[g,h,i]perylene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Benzo[k]fluoranthene	ND		0.020	ug/L		09/02/22 07:31	09/06/22 12:04	1
beta-BHC	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Bromacil	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Butachlor	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Butylbenzylphthalate	ND		0.49	ug/L		09/02/22 07:31	09/06/22 12:04	1
Caffeine	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Chlorobenzilate	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Chloroneb	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Chlorothalonil (Draconil, Bravo)	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Chlorpyrifos	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Chrysene	ND		0.020	ug/L		09/02/22 07:31	09/06/22 12:04	1
delta-BHC	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Di(2-ethylhexyl)adipate	ND		0.59	ug/L		09/02/22 07:31	09/06/22 12:04	1
Bis(2-ethylhexyl) phthalate	ND		0.59	ug/L		09/02/22 07:31	09/06/22 12:04	1
Diazinon (Qualitative)	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Dibenz(a,h)an hracene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Diclorvos (DDVP)	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Dieldrin	ND		0.20	ug/L		09/02/22 07:31	09/06/22 12:04	1
Diethylphthalate	ND		0.49	ug/L		09/02/22 07:31	09/06/22 12:04	1
Dimethoate	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Dimethylphalate	ND		0.49	ug/L		09/02/22 07:31	09/06/22 12:04	1
Di-n-butyl phthalate	ND		0.98	ug/L		09/02/22 07:31	09/06/22 12:04	1
Di-n-octyl phthalate	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Endosulfan I (Alpha)	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Endosulfan II (Beta)	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Endosulfan sulfate	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Endrin	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Endrin aldehyde	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1

Euofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 380-16015/1-A

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 16015

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
EPTC	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Fluoranthene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Fluorene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
gamma-Chlordane	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Heptachlor	ND		0.039	ug/L		09/02/22 07:31	09/06/22 12:04	1
Heptachlor epoxide (isomer B)	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Hexachlorobenzene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Hexachlorocyclopentadiene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Indeno[1,2,3-cd]pyrene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Isophorone	ND		0.49	ug/L		09/02/22 07:31	09/06/22 12:04	1
Lindane	ND		0.039	ug/L		09/02/22 07:31	09/06/22 12:04	1
Malathion	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Methoxychlor	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Metolachlor	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Metribuzin	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Molinate	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Naphthalene	ND		0.30	ug/L		09/02/22 07:31	09/06/22 12:04	1
Parathion	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Pendimethalin (Penoxaline)	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		09/02/22 07:31	09/06/22 12:04	1
Phenanthrene	ND		0.039	ug/L		09/02/22 07:31	09/06/22 12:04	1
Propachlor	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Pyrene	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Simazine	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Terbacil	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Terbutylazine	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
Thiobencarb	ND		0.20	ug/L		09/02/22 07:31	09/06/22 12:04	1
trans-Nonachlor	ND		0.049	ug/L		09/02/22 07:31	09/06/22 12:04	1
Trifluralin	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
1-Methylnaphthalene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1
2-Methylnaphthalene	ND		0.098	ug/L		09/02/22 07:31	09/06/22 12:04	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Decane	1.27	T J N	ug/L		2.47	124-18-5	09/02/22 07:31	09/06/22 12:04	1
n-Hexadecanoic acid	0.664	T J N	ug/L		5.92	57-10-3	09/02/22 07:31	09/06/22 12:04	1
Octadecanoic acid	0.594	T J N	ug/L		6.62	57-11-4	09/02/22 07:31	09/06/22 12:04	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Nitro-m-xylene	97		70 - 130	09/02/22 07:31	09/06/22 12:04	1
Triphenylphosphate	100		70 - 130	09/02/22 07:31	09/06/22 12:04	1
Perylene-d12	97		70 - 130	09/02/22 07:31	09/06/22 12:04	1

Lab Sample ID: LCS 380-16015/3-A

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 16015

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
2,4'-DDD	1.95	2.15		ug/L		110	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 380-16015/3-A

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 16015

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
2,4'-DDE	1.95	2.08		ug/L		107	70 - 130
2,4'-DDT	1.95	2.22		ug/L		114	70 - 130
2,4-Dinitrotoluene	1.95	1.96		ug/L		101	70 - 130
2,6-Dinitrotoluene	1.95	1.89		ug/L		97	70 - 130
4,4'-DDD	1.95	2.24		ug/L		115	70 - 130
4,4'-DDE	1.95	2.26		ug/L		116	70 - 130
4,4'-DDT	1.95	2.02		ug/L		104	70 - 130
Acenaphthene	1.95	1.96		ug/L		100	70 - 130
Acenaphthylene	1.95	1.99		ug/L		102	70 - 130
Acetochlor	1.95	2.22		ug/L		114	70 - 130
Alachlor	1.95	2.12		ug/L		108	70 - 130
alpha-BHC	1.95	2.09		ug/L		107	70 - 130
alpha-Chlordane	1.95	2.25		ug/L		115	70 - 130
Anthracene	1.95	2.08		ug/L		107	70 - 130
Atrazine	1.95	2.30		ug/L		118	70 - 130
Benz(a)anthracene	1.95	2.07		ug/L		106	70 - 130
Benzo[a]pyrene	1.95	2.22		ug/L		114	70 - 130
Benzo[b]fluoranthene	1.95	2.17		ug/L		111	70 - 130
Benzo[g,h,i]perylene	1.95	2.52		ug/L		129	70 - 130
Benzo[k]fluoranthene	1.95	2.21		ug/L		114	70 - 130
beta-BHC	1.95	2.11		ug/L		108	70 - 130
Bromacil	1.95	2.07		ug/L		106	70 - 130
Butachlor	1.95	2.29		ug/L		117	70 - 130
Butylbenzylphthalate	1.95	2.23		ug/L		114	70 - 130
Caffeine	1.95	1.01		ug/L		52	45 - 137
Chlorobenzilate	1.95	2.38		ug/L		122	70 - 130
Chloroneb	1.95	2.03		ug/L		104	70 - 130
Chlorothalonil (Draconil, Bravo)	1.95	2.27		ug/L		117	70 - 130
Chlorpyrifos	1.95	2.23		ug/L		115	70 - 130
Chrysene	1.95	2.13		ug/L		109	70 - 130
delta-BHC	1.95	2.05		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	1.95	2.34		ug/L		120	70 - 130
Bis(2-ethylhexyl) phthalate	1.95	2.16		ug/L		111	70 - 130
Diazinon (Qualitative)	1.95	1.85		ug/L		95	15 - 132
Dibenz(a,h)anthracene	1.95	2.39		ug/L		122	70 - 130
Diclorvos (DDVP)	1.95	2.38		ug/L		122	70 - 130
Dieldrin	1.95	2.08		ug/L		107	70 - 130
Diethylphthalate	1.95	2.08		ug/L		107	70 - 130
Dimethoate	1.95	0.969		ug/L		50	35 - 100
Dimethylphthalate	1.95	2.08		ug/L		107	70 - 130
Di-n-butyl phthalate	3.90	4.28		ug/L		110	70 - 130
Di-n-octyl phthalate	1.95	1.94		ug/L		99	70 - 130
Endosulfan I (Alpha)	1.95	2.15		ug/L		110	70 - 130
Endosulfan II (Beta)	1.95	2.26		ug/L		116	70 - 130
Endosulfan sulfate	1.95	2.10		ug/L		108	70 - 130
Endrin	1.95	2.28		ug/L		117	70 - 130
Endrin aldehyde	1.95	2.05		ug/L		105	70 - 130
EPTC	1.95	2.12		ug/L		109	70 - 130
Fluoranthene	1.95	2.25		ug/L		115	70 - 130

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QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 380-16015/3-A

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 16015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	1.95	2.08		ug/L		107	70 - 130
gamma-Chlordane	1.95	2.23		ug/L		114	70 - 130
Heptachlor	1.95	2.08		ug/L		107	70 - 130
Heptachlor epoxide (isomer B)	1.95	2.17		ug/L		111	70 - 130
Hexachlorobenzene	1.95	1.99		ug/L		102	70 - 130
Hexachlorocyclopentadiene	1.95	1.96		ug/L		100	70 - 130
Indeno[1,2,3-cd]pyrene	1.95	2.40		ug/L		123	70 - 130
Isophorone	1.95	2.09		ug/L		107	70 - 130
Lindane	1.95	2.13		ug/L		109	70 - 130
Malathion	1.95	2.39		ug/L		122	70 - 130
Methoxychlor	1.95	2.17		ug/L		111	70 - 130
Metolachlor	1.95	2.21		ug/L		113	70 - 130
Metribuzin	1.95	2.05		ug/L		105	70 - 130
Molinate	1.95	2.10		ug/L		108	70 - 130
Naphthalene	1.95	1.95		ug/L		100	70 - 130
Parathion	1.95	2.27		ug/L		116	70 - 130
Pendimethalin (Penoxaline)	1.95	2.08		ug/L		107	70 - 130
Phenanthrene	1.95	1.99		ug/L		102	70 - 130
Propachlor	1.95	2.19		ug/L		113	70 - 130
Pyrene	1.95	2.27		ug/L		116	70 - 130
Simazine	1.95	2.29		ug/L		117	70 - 130
Terbacil	1.95	2.16		ug/L		111	70 - 130
Terbutylazine	1.95	2.37		ug/L		121	70 - 130
Thiobencarb	1.95	2.19		ug/L		112	70 - 130
trans-Nonachlor	1.95	2.20		ug/L		113	70 - 130
Trifluralin	1.95	2.22		ug/L		114	70 - 130
1-Methylnaphthalene	1.95	2.03		ug/L		104	70 - 130
2-Methylnaphthalene	1.95	2.07		ug/L		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	97		70 - 130
Triphenylphosphate	106		70 - 130
Perylene-d12	101		70 - 130

Lab Sample ID: LCSD 380-16015/4-A

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 16015

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4'-DDD	1.97	2.08		ug/L		106	70 - 130	4	20
2,4'-DDE	1.97	1.99		ug/L		101	70 - 130	5	20
2,4'-DDT	1.97	2.08		ug/L		106	70 - 130	6	20
2,4-Dinitrotoluene	1.97	1.84		ug/L		93	70 - 130	7	20
2,6-Dinitrotoluene	1.97	1.86		ug/L		95	70 - 130	2	20
4,4'-DDD	1.97	2.16		ug/L		110	70 - 130	4	20
4,4'-DDE	1.97	2.13		ug/L		108	70 - 130	6	20
4,4'-DDT	1.97	1.86		ug/L		94	70 - 130	8	20
Acenaphthene	1.97	1.92		ug/L		97	70 - 130	2	20

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 380-16015/4-A

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 16015

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
Acenaphthylene	1.97	1.96		ug/L		100	70 - 130	1	20
Acetochlor	1.97	1.99		ug/L		101	70 - 130	11	20
Alachlor	1.97	2.01		ug/L		102	70 - 130	5	20
alpha-BHC	1.97	2.07		ug/L		105	70 - 130	1	20
alpha-Chlordane	1.97	2.10		ug/L		107	70 - 130	7	20
Anthracene	1.97	2.12		ug/L		108	70 - 130	2	20
Atrazine	1.97	2.19		ug/L		111	70 - 130	5	20
Benz(a)anthracene	1.97	1.90		ug/L		96	70 - 130	9	20
Benzo[a]pyrene	1.97	2.08		ug/L		106	70 - 130	6	20
Benzo[b]fluoranthene	1.97	2.09		ug/L		106	70 - 130	4	20
Benzo[g,h,i]perylene	1.97	2.27		ug/L		115	70 - 130	11	20
Benzo[k]fluoranthene	1.97	2.13		ug/L		108	70 - 130	4	20
beta-BHC	1.97	2.07		ug/L		105	70 - 130	2	20
Bromacil	1.97	1.94		ug/L		99	70 - 130	7	20
Butachlor	1.97	2.16		ug/L		110	70 - 130	6	20
Butylbenzylphthalate	1.97	2.10		ug/L		107	70 - 130	6	20
Caffeine	1.97	0.997		ug/L		51	45 - 137	2	20
Chlorobenzilate	1.97	2.02		ug/L		103	70 - 130	17	20
Chloroneb	1.97	2.02		ug/L		103	70 - 130	1	20
Chlorothalonil (Draconil, Bravo)	1.97	2.14		ug/L		109	70 - 130	6	20
Chlorpyrifos	1.97	2.11		ug/L		107	70 - 130	6	20
Chrysene	1.97	2.14		ug/L		109	70 - 130	1	20
delta-BHC	1.97	1.97		ug/L		100	70 - 130	4	20
Di(2-ethylhexyl)adipate	1.97	2.26		ug/L		115	70 - 130	4	20
Bis(2-ethylhexyl) phthalate	1.97	2.21		ug/L		113	70 - 130	3	20
Diazinon (Qualitative)	1.97	1.82		ug/L		93	15 - 132	2	20
Dibenz(a,h)an hracene	1.97	2.29		ug/L		116	70 - 130	4	20
Diclorvos (DDVP)	1.97	2.26		ug/L		115	70 - 130	5	20
Dieldrin	1.97	1.99		ug/L		101	70 - 130	5	20
Diethylphthalate	1.97	2.04		ug/L		104	70 - 130	2	20
Dimethoate	1.97	0.952		ug/L		48	35 - 100	2	20
Dimethylph halate	1.97	2.09		ug/L		106	70 - 130	0	20
Di-n-butyl phthalate	3.94	4.04		ug/L		103	70 - 130	6	20
Di-n-octyl phthalate	1.97	1.97		ug/L		100	70 - 130	1	20
Endosulfan I (Alpha)	1.97	2.09		ug/L		106	70 - 130	3	20
Endosulfan II (Beta)	1.97	2.14		ug/L		109	70 - 130	6	20
Endosulfan sulfate	1.97	1.99		ug/L		101	70 - 130	5	20
Endrin	1.97	2.15		ug/L		109	70 - 130	6	20
Endrin aldehyde	1.97	1.78		ug/L		90	70 - 130	14	20
EPTC	1.97	2.08		ug/L		106	70 - 130	2	20
Fluoranthene	1.97	2.13		ug/L		108	70 - 130	5	20
Fluorene	1.97	2.04		ug/L		103	70 - 130	2	20
gamma-Chlordane	1.97	2.11		ug/L		107	70 - 130	5	20
Heptachlor	1.97	2.00		ug/L		102	70 - 130	4	20
Heptachlor epoxide (isomer B)	1.97	2.04		ug/L		104	70 - 130	7	20
Hexachlorobenzene	1.97	1.96		ug/L		100	70 - 130	2	20
Hexachlorocyclopentadiene	1.97	1.96		ug/L		99	70 - 130	0	20
Indeno[1,2,3-cd]pyrene	1.97	2.26		ug/L		115	70 - 130	6	20
Isophorone	1.97	2.08		ug/L		106	70 - 130	0	20

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 380-16015/4-A

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 16015

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lindane	1.97	2.10		ug/L		107	70 - 130	1	20
Malathion	1.97	2.24		ug/L		114	70 - 130	7	20
Methoxychlor	1.97	2.12		ug/L		108	70 - 130	3	20
Metolachlor	1.97	2.08		ug/L		106	70 - 130	6	20
Metribuzin	1.97	1.67		ug/L		85	70 - 130	20	20
Molinate	1.97	2.08		ug/L		106	70 - 130	1	20
Naphthalene	1.97	1.97		ug/L		100	70 - 130	1	20
Parathion	1.97	2.14		ug/L		109	70 - 130	6	20
Pendimethalin (Penoxaline)	1.97	1.95		ug/L		99	70 - 130	7	20
Phenanthrene	1.97	1.97		ug/L		100	70 - 130	1	20
Propachlor	1.97	2.14		ug/L		109	70 - 130	3	20
Pyrene	1.97	2.16		ug/L		110	70 - 130	5	20
Simazine	1.97	2.11		ug/L		107	70 - 130	8	20
Terbacil	1.97	2.02		ug/L		102	70 - 130	7	20
Terbutylazine	1.97	2.20		ug/L		112	70 - 130	7	20
Thiobencarb	1.97	2.05		ug/L		104	70 - 130	7	20
trans-Nonachlor	1.97	2.10		ug/L		107	70 - 130	5	20
Trifluralin	1.97	2.18		ug/L		111	70 - 130	2	20
1-Methylnaphthalene	1.97	1.96		ug/L		100	70 - 130	3	20
2-Methylnaphthalene	1.97	1.98		ug/L		101	70 - 130	4	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2-Nitro-m-xylene	97		70 - 130
Triphenylphosphate	94		70 - 130
Perylene-d12	93		70 - 130

Lab Sample ID: MRL 380-16015/2-A

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 16015

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0985	0.134		ug/L		136	50 - 150
2,4'-DDE	0.0985	0.110		ug/L		112	50 - 150
2,4'-DDT	0.0985	0.101		ug/L		103	50 - 150
2,4-Dinitrotoluene	0.0985	0.0708	J	ug/L		72	50 - 150
2,6-Dinitrotoluene	0.0985	0.0839	J	ug/L		85	50 - 150
4,4'-DDD	0.0985	0.114		ug/L		115	50 - 150
4,4'-DDE	0.0985	0.104		ug/L		106	50 - 150
4,4'-DDT	0.0985	0.123		ug/L		125	50 - 150
Acenaphthene	0.0985	0.0939	J	ug/L		95	50 - 150
Acenaphthylene	0.0985	0.0876	J	ug/L		89	50 - 150
Acetochlor	0.0493	0.0521	J	ug/L		106	50 - 150
Alachlor	0.0493	0.0669		ug/L		136	50 - 150
alpha-BHC	0.0985	0.110		ug/L		111	50 - 150
alpha-Chlordane	0.0493	0.0529		ug/L		107	50 - 150
Anthracene	0.0197	0.0212		ug/L		108	50 - 150
Atrazine	0.0493	0.0510		ug/L		104	50 - 150
Benz(a)anthracene	0.0493	0.0686		ug/L		139	50 - 150

Euofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MRL 380-16015/2-A

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 16015

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec Limits
	Added	Result	Qualifier				
Benzo[a]pyrene	0.0197	0.0206		ug/L		105	50 - 150
Benzo[b]fluoranthene	0.0197	0.0240		ug/L		122	50 - 150
Benzo[g,h,i]perylene	0.0493	0.0537		ug/L		109	50 - 150
Benzo[k]fluoranthene	0.0197	0.0206		ug/L		104	50 - 150
beta-BHC	0.0985	0.0990		ug/L		101	50 - 150
Bromacil	0.0985	0.126		ug/L		128	50 - 150
Butachlor	0.0493	0.0644		ug/L		131	50 - 150
Butylbenzylphthalate	0.148	0.172	J	ug/L		116	50 - 150
Caffeine	0.0493	0.0248	J	ug/L		50	50 - 150
Chlorobenzilate	0.0985	0.102		ug/L		103	50 - 150
Chloroneb	0.0985	0.0943	J	ug/L		96	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0985	0.102		ug/L		104	50 - 150
Chlorpyrifos	0.0493	0.0522		ug/L		106	50 - 150
Chrysene	0.0197	0.0225		ug/L		114	50 - 150
delta-BHC	0.0985	0.139		ug/L		141	50 - 150
Di(2-ethylhexyl)adipate	0.296	0.350	J	ug/L		118	50 - 150
Bis(2-ethylhexyl) phthalate	0.591	0.688		ug/L		116	50 - 150
Diazinon (Qualitative)	0.0985	0.0796	J	ug/L		81	15 - 132
Dibenz(a,h)an hracene	0.0493	0.0512		ug/L		104	50 - 150
Diclorvos (DDVP)	0.0493	0.0583		ug/L		118	50 - 150
Dieldrin	0.0985	0.111	J	ug/L		112	50 - 150
Diethylphthalate	0.148	0.178	J	ug/L		121	50 - 150
Dimethoate	0.0985	0.0418	J	ug/L		42	35 - 100
Dimethylphthalate	0.296	0.288	J	ug/L		98	50 - 150
Di-n-butyl phthalate	0.296	0.345	J	ug/L		117	49 - 243
Di-n-octyl phthalate	0.0985	0.113		ug/L		115	50 - 150
Endosulfan I (Alpha)	0.0985	0.101		ug/L		102	50 - 150
Endosulfan II (Beta)	0.0985	0.121		ug/L		123	50 - 150
Endosulfan sulfate	0.0985	0.0923	J	ug/L		94	50 - 150
Endrin	0.0985	0.115		ug/L		117	50 - 150
Endrin aldehyde	0.0985	0.120		ug/L		122	50 - 150
EPTC	0.0985	0.103		ug/L		105	50 - 150
Fluoranthene	0.0493	0.0569	J	ug/L		116	50 - 150
Fluorene	0.0493	ND		ug/L		98	50 - 150
gamma-Chlordane	0.0493	0.0526		ug/L		107	50 - 150
Heptachlor	0.0394	0.0470		ug/L		119	50 - 150
Heptachlor epoxide (isomer B)	0.0493	0.0498		ug/L		101	50 - 150
Hexachlorobenzene	0.0493	0.0588		ug/L		119	50 - 150
Hexachlorocyclopentadiene	0.0493	0.0445	J	ug/L		90	50 - 150
Indeno[1,2,3-cd]pyrene	0.0493	0.0488	J	ug/L		99	50 - 150
Isophorone	0.0985	0.108	J	ug/L		109	50 - 150
Lindane	0.0493	0.0468		ug/L		95	50 - 150
Malathion	0.0985	0.105		ug/L		106	50 - 150
Methoxychlor	0.0985	0.123		ug/L		125	50 - 150
Metolachlor	0.0493	0.0540		ug/L		110	50 - 150
Metribuzin	0.0493	0.0359	J	ug/L		73	50 - 150
Molinate	0.0985	0.103		ug/L		104	50 - 150
Naphthalene	0.0985	0.104	J	ug/L		105	50 - 150
Parathion	0.0985	0.127		ug/L		129	50 - 150

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MRL 380-16015/2-A

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 16015

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Pendimethalin (Penoxaline)	0.0985	0.117		ug/L		118	50 - 150
Phenanthrene	0.0197	0.0236	J	ug/L		120	50 - 150
Propachlor	0.0493	0.0515		ug/L		105	50 - 150
Pyrene	0.0493	0.0576		ug/L		117	50 - 150
Simazine	0.0493	0.0529		ug/L		107	50 - 150
Terbacil	0.0985	0.130		ug/L		131	50 - 150
Terbutylazine	0.0985	0.101		ug/L		102	50 - 150
Thiobencarb	0.0985	0.111	J	ug/L		113	50 - 150
trans-Nonachlor	0.0493	0.0522		ug/L		106	50 - 150
Trifluralin	0.0985	0.0894	J	ug/L		91	50 - 150
1-Methylnaphthalene	0.0985	0.110		ug/L		112	50 - 150
2-Methylnaphthalene	0.0985	0.105		ug/L		106	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
2-Nitro-m-xylene	96		70 - 130
Triphenylphosphate	105		70 - 130
Perylene-d12	97		70 - 130

Lab Sample ID: 380-18938-C-3-A MS

Matrix: Water

Analysis Batch: 16293

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 16015

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	ND		1.96	2.06		ug/L		105	70 - 130
2,4'-DDE	ND		1.96	2.05		ug/L		105	70 - 130
2,4'-DDT	ND		1.96	2.24		ug/L		114	70 - 130
2,4-Dinitrotoluene	ND		1.96	2.04		ug/L		104	70 - 130
2,6-Dinitrotoluene	ND		1.96	1.97		ug/L		101	70 - 130
4,4'-DDD	ND		1.96	2.25		ug/L		115	70 - 130
4,4'-DDE	ND		1.96	2.21		ug/L		113	70 - 130
4,4'-DDT	ND		1.96	2.06		ug/L		105	70 - 130
Acenaphthene	ND		1.96	1.92		ug/L		98	70 - 130
Acenaphthylene	ND		1.96	1.99		ug/L		102	70 - 130
Acetochlor	ND		1.96	2.13		ug/L		109	70 - 130
Alachlor	ND		1.96	2.08		ug/L		106	70 - 130
alpha-BHC	ND		1.96	2.06		ug/L		105	70 - 130
alpha-Chlordane	ND		1.96	2.19		ug/L		112	70 - 130
Anthracene	ND		1.96	1.68		ug/L		86	70 - 130
Atrazine	0.12		1.96	2.31		ug/L		112	70 - 130
Benz(a)anthracene	ND		1.96	1.99		ug/L		101	70 - 130
Benzo[a]pyrene	ND		1.96	1.95		ug/L		99	70 - 130
Benzo[b]fluoranthene	ND		1.96	2.14		ug/L		109	70 - 130
Benzo[g,h,i]perylene	ND		1.96	2.36		ug/L		121	70 - 130
Benzo[k]fluoranthene	ND		1.96	2.17		ug/L		111	70 - 130
beta-BHC	ND		1.96	2.10		ug/L		107	70 - 130
Bromacil	ND		1.96	2.28		ug/L		116	70 - 130
Butachlor	ND		1.96	2.23		ug/L		114	70 - 130
Butylbenzylphthalate	ND		1.96	2.26		ug/L		115	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-18938-C-3-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 16293

Prep Batch: 16015

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Caffeine	ND		1.96	1.25		ug/L		64	46 - 144
Chlorobenzilate	ND	F1	1.96	2.57	F1	ug/L		131	70 - 130
Chloroneb	ND		1.96	2.01		ug/L		102	70 - 130
Chlorothalonil (Draconil, Bravo)	ND		1.96	2.27		ug/L		116	70 - 130
Chlorpyrifos	ND		1.96	2.21		ug/L		113	70 - 130
Chrysene	ND		1.96	2.09		ug/L		107	70 - 130
delta-BHC	ND		1.96	2.02		ug/L		103	70 - 130
Di(2-ethylhexyl)adipate	ND		1.96	2.41		ug/L		123	70 - 130
Bis(2-ethylhexyl) phthalate	ND		1.96	2.22		ug/L		113	70 - 130
Diazinon (Qualitative)	ND		1.96	1.99		ug/L		102	15 - 132
Dibenz(a,h)an hracene	ND		1.96	2.30		ug/L		117	70 - 130
Diclorvos (DDVP)	ND		1.96	2.32		ug/L		118	70 - 130
Dieldrin	ND		1.96	2.15		ug/L		110	70 - 130
Diethylphthalate	ND		1.96	2.10		ug/L		107	70 - 130
Dimethoate	ND		1.96	1.19		ug/L		61	34 - 111
Dimethylphalate	ND		1.96	2.09		ug/L		107	70 - 130
Di-n-butyl phthalate	ND		3.92	4.26		ug/L		109	70 - 130
Di-n-octyl phthalate	ND		1.96	2.04		ug/L		104	70 - 130
Endosulfan I (Alpha)	ND		1.96	2.15		ug/L		110	70 - 130
Endosulfan II (Beta)	ND		1.96	2.26		ug/L		115	70 - 130
Endosulfan sulfate	ND		1.96	2.14		ug/L		109	70 - 130
Endrin	ND		1.96	2.45		ug/L		125	70 - 130
Endrin aldehyde	ND		1.96	1.81		ug/L		92	70 - 130
EPTC	ND		1.96	2.10		ug/L		107	70 - 130
Fluoranthene	ND		1.96	2.24		ug/L		114	70 - 130
Fluorene	ND		1.96	2.05		ug/L		105	70 - 130
gamma-Chlordane	ND		1.96	2.20		ug/L		112	70 - 130
Heptachlor	ND		1.96	2.05		ug/L		104	70 - 130
Heptachlor epoxide (isomer B)	ND		1.96	2.18		ug/L		111	70 - 130
Hexachlorobenzene	ND		1.96	1.96		ug/L		100	70 - 130
Hexachlorocyclopentadiene	ND		1.96	1.91		ug/L		98	70 - 130
Indeno[1,2,3-cd]pyrene	ND		1.96	2.36		ug/L		121	70 - 130
Isophorone	ND		1.96	2.06		ug/L		105	70 - 130
Lindane	ND		1.96	2.13		ug/L		109	70 - 130
Malathion	ND		1.96	2.40		ug/L		123	70 - 130
Methoxychlor	ND		1.96	2.20		ug/L		112	70 - 130
Metolachlor	ND		1.96	2.21		ug/L		113	70 - 130
Metribuzin	ND		1.96	1.94		ug/L		99	70 - 130
Molinate	ND		1.96	2.13		ug/L		108	70 - 130
Naphthalene	ND		1.96	1.92		ug/L		97	70 - 130
Parathion	ND		1.96	2.43		ug/L		124	70 - 130
Pendimethalin (Penoxaline)	ND		1.96	2.13		ug/L		109	70 - 130
Phenanthrene	ND		1.96	2.00		ug/L		102	70 - 130
Propachlor	ND		1.96	2.21		ug/L		113	70 - 130
Pyrene	ND		1.96	2.25		ug/L		115	70 - 130
Simazine	ND		1.96	2.22		ug/L		111	70 - 130
Terbacil	ND		1.96	2.17		ug/L		111	70 - 130
Terbuthylazine	ND		1.96	2.21		ug/L		113	70 - 130
Thiobencarb	ND		1.96	2.15		ug/L		110	70 - 130

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-18938-C-3-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 16293

Prep Batch: 16015

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
trans-Nonachlor	ND		1.96	2.22		ug/L		113	70 - 130
Trifluralin	ND		1.96	2.25		ug/L		115	70 - 130
1-Methylnaphthalene	ND		1.96	1.97		ug/L		101	70 - 130
2-Methylnaphthalene	ND		1.96	1.97		ug/L		101	70 - 130
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
2-Nitro-m-xylene	97		70 - 130						
Triphenylphosphate	110		70 - 130						
Perylene-d12	97		70 - 130						

Lab Sample ID: 380-18572-1 DU

Client Sample ID: HALAWA WELLS PUMP 1

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 16293

Prep Batch: 16015

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
2,4'-DDD	ND		ND		ug/L		NC	20
2,4'-DDE	ND		ND		ug/L		NC	20
2,4'-DDT	ND		ND		ug/L		NC	20
2,4-Dinitrotoluene	ND		ND		ug/L		NC	20
2,6-Dinitrotoluene	ND		ND		ug/L		NC	20
4,4'-DDD	ND		ND		ug/L		NC	20
4,4'-DDE	ND		ND		ug/L		NC	20
4,4'-DDT	ND		ND		ug/L		NC	20
Acenaphthene	ND		ND		ug/L		NC	20
Acenaphthylene	ND		ND		ug/L		NC	20
Acetochlor	ND		ND		ug/L		NC	20
Alachlor	ND		ND		ug/L		NC	20
alpha-BHC	ND		ND		ug/L		NC	20
alpha-Chlordane	ND		ND		ug/L		NC	20
Anthracene	ND		ND		ug/L		NC	20
Atrazine	ND		ND		ug/L		NC	20
Benz(a)anthracene	ND		ND		ug/L		NC	20
Benzo[a]pyrene	ND		ND		ug/L		NC	20
Benzo[b]fluoranthene	ND		ND		ug/L		NC	20
Benzo[g,h,i]perylene	ND		ND		ug/L		NC	20
Benzo[k]fluoranthene	ND		ND		ug/L		NC	20
beta-BHC	ND		ND		ug/L		NC	20
Bromacil	ND		ND		ug/L		NC	20
Butachlor	ND		ND		ug/L		NC	20
Butylbenzylphthalate	ND		ND		ug/L		NC	20
Caffeine	ND		ND		ug/L		NC	20
Chlorobenzilate	ND		ND		ug/L		NC	20
Chloroneb	ND		ND		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	ND		ND		ug/L		NC	20
Chlorpyrifos	ND		ND		ug/L		NC	20
Chrysene	ND		ND		ug/L		NC	20
delta-BHC	ND		ND		ug/L		NC	20
Di(2-ethylhexyl)adipate	ND		ND		ug/L		NC	20

Eurofins Eaton Monrovia

QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-18572-1 DU

Matrix: Water

Analysis Batch: 16293

Client Sample ID: HALAWA WELLS PUMP 1

Prep Type: Total/NA

Prep Batch: 16015

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Bis(2-ethylhexyl) phthalate	ND		ND		ug/L		NC	20
Diazinon (Qualitative)	ND		ND		ug/L		NC	20
Dibenz(a,h)an hracene	ND		ND		ug/L		NC	20
Diclorvos (DDVP)	ND		ND		ug/L		NC	20
Dieldrin	ND		ND		ug/L		NC	20
Diethylphthalate	ND		ND		ug/L		NC	20
Dimethoate	ND		ND		ug/L		NC	20
Dimethylphalate	ND		ND		ug/L		NC	20
Di-n-butyl phthalate	ND		ND		ug/L		NC	20
Di-n-octyl phthalate	ND		ND		ug/L		NC	20
Endosulfan I (Alpha)	ND		ND		ug/L		NC	20
Endosulfan II (Beta)	ND		ND		ug/L		NC	20
Endosulfan sulfate	ND		ND		ug/L		NC	20
Endrin	ND		ND		ug/L		NC	20
Endrin aldehyde	ND		ND		ug/L		NC	20
EPTC	ND		ND		ug/L		NC	20
Fluoranthene	ND		ND		ug/L		NC	20
Fluorene	ND		ND		ug/L		NC	20
gamma-Chlordane	ND		ND		ug/L		NC	20
Heptachlor	ND		ND		ug/L		NC	20
Heptachlor epoxide (isomer B)	ND		ND		ug/L		NC	20
Hexachlorobenzene	ND		ND		ug/L		NC	20
Hexachlorocyclopentadiene	ND		ND		ug/L		NC	20
Indeno[1,2,3-cd]pyrene	ND		ND		ug/L		NC	20
Isophorone	ND		ND		ug/L		NC	20
Lindane	ND		ND		ug/L		NC	20
Malathion	ND		ND		ug/L		NC	20
Methoxychlor	ND		ND		ug/L		NC	20
Metolachlor	ND		ND		ug/L		NC	20
Metribuzin	ND		ND		ug/L		NC	20
Molinate	ND		ND		ug/L		NC	20
Naphthalene	ND		ND		ug/L		NC	20
Parathion	ND		ND		ug/L		NC	20
Pendimethalin (Penoxaline)	ND		ND		ug/L		NC	20
Total Permethrin (mixed isomers)	ND		ND		ug/L		NC	20
Phenanthrene	ND		ND		ug/L		NC	20
Propachlor	ND		ND		ug/L		NC	20
Pyrene	ND		ND		ug/L		NC	20
Simazine	ND		ND		ug/L		NC	20
Terbacil	ND		ND		ug/L		NC	20
Terbutylazine	ND		ND		ug/L		NC	20
Thiobencarb	ND		ND		ug/L		NC	20
trans-Nonachlor	ND		ND		ug/L		NC	20
Trifluralin	ND		ND		ug/L		NC	20
1-Methylnaphthalene	ND		ND		ug/L		NC	20
2-Methylnaphthalene	ND		ND		ug/L		NC	20

QC Sample Results

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

Job ID: 380-18572-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-18572-1 DU

Matrix: Water

Analysis Batch: 16293

Client Sample ID: HALAWA WELLS PUMP 1

Prep Type: Total/NA

Prep Batch: 16015

Surrogate	DU DU		Limits
	%Recovery	Qualifier	
2-Nitro- <i>m</i> -xylene	96		70 - 130
Triphenylphosphate	103		70 - 130
Perylene-d12	99		70 - 130

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- 17

QC Association Summary

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

Job ID: 380-18572-1

GC/MS Semi VOA

Prep Batch: 16015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-18572-1	HALAWA WELLS PUMP 1	Total/NA	Water	525.2	
MB 380-16015/1-A	Method Blank	Total/NA	Water	525.2	
LCS 380-16015/3-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-16015/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-16015/2-A	Lab Control Sample	Total/NA	Water	525.2	
380-18938-C-3-A MS	Matrix Spike	Total/NA	Water	525.2	
380-18572-1 DU	HALAWA WELLS PUMP 1	Total/NA	Water	525.2	

Analysis Batch: 16293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-18572-1	HALAWA WELLS PUMP 1	Total/NA	Water	525.2	16015
MB 380-16015/1-A	Method Blank	Total/NA	Water	525.2	16015
LCS 380-16015/3-A	Lab Control Sample	Total/NA	Water	525.2	16015
LCSD 380-16015/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	16015
MRL 380-16015/2-A	Lab Control Sample	Total/NA	Water	525.2	16015
380-18938-C-3-A MS	Matrix Spike	Total/NA	Water	525.2	16015
380-18572-1 DU	HALAWA WELLS PUMP 1	Total/NA	Water	525.2	16015



Lab Chronicle

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

Job ID: 380-18572-1

Client Sample ID: HALAWA WELLS PUMP 1

Lab Sample ID: 380-18572-1

Date Collected: 08/24/22 09:20

Matrix: Water

Date Received: 08/25/22 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			16015	GY8Q	EA MON	09/02/22 07:31
Total/NA	Analysis	525.2		1	16293	Q8LA	EA MON	09/06/22 14:53

Laboratory References:

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

EA MON = Eurofins Eaton Monrovia, 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016, TEL (626)386-1100



Accreditation/Certification Summary

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

Job ID: 380-18572-1

Laboratory: Eurofins Eaton Monrovia

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
525.2	525.2	Water	1-Methylnaphthalene
525.2	525.2	Water	2,4'-DDD
525.2	525.2	Water	2,4'-DDE
525.2	525.2	Water	2,4'-DDT
525.2	525.2	Water	2,4-Dinitrotoluene
525.2	525.2	Water	2,6-Dinitrotoluene
525.2	525.2	Water	2-Methylnaphthalene
525.2	525.2	Water	4,4'-DDD
525.2	525.2	Water	4,4'-DDE
525.2	525.2	Water	4,4'-DDT
525.2	525.2	Water	Acenaphthene
525.2	525.2	Water	Acenaphthylene
525.2	525.2	Water	Acetochlor
525.2	525.2	Water	alpha-BHC
525.2	525.2	Water	alpha-Chlordane
525.2	525.2	Water	Anthracene
525.2	525.2	Water	Benz(a)anthracene
525.2	525.2	Water	Benzo[b]fluoranthene
525.2	525.2	Water	Benzo[g,h,i]perylene
525.2	525.2	Water	Benzo[k]fluoranthene
525.2	525.2	Water	beta-BHC
525.2	525.2	Water	Bromacil
525.2	525.2	Water	Butylbenzylphthalate
525.2	525.2	Water	Caffeine
525.2	525.2	Water	Chlorobenzilate
525.2	525.2	Water	Chloroneb
525.2	525.2	Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Water	Chlorpyrifos
525.2	525.2	Water	Chrysene
525.2	525.2	Water	delta-BHC
525.2	525.2	Water	Diazinon (Qualitative)
525.2	525.2	Water	Dibenz(a,h)anthracene
525.2	525.2	Water	Diclorvos (DDVP)
525.2	525.2	Water	Diethylphthalate
525.2	525.2	Water	Dimethoate
525.2	525.2	Water	Dimethylphthalate
525.2	525.2	Water	Di-n-butyl phthalate
525.2	525.2	Water	Di-n-octyl phthalate
525.2	525.2	Water	Endosulfan I (Alpha)
525.2	525.2	Water	Endosulfan II (Beta)
525.2	525.2	Water	Endosulfan sulfate
525.2	525.2	Water	Endrin aldehyde
525.2	525.2	Water	EPTC
525.2	525.2	Water	Fluoranthene
525.2	525.2	Water	Fluorene

Accreditation/Certification Summary

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

Job ID: 380-18572-1

Laboratory: Eurofins Eaton Monrovia (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
-----------	---------	-----------------------	-----------------

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
525.2	525.2	Water	gamma-Chlordane
525.2	525.2	Water	Indeno[1,2,3-cd]pyrene
525.2	525.2	Water	Isophorone
525.2	525.2	Water	Malathion
525.2	525.2	Water	Molinate
525.2	525.2	Water	Naphthalene
525.2	525.2	Water	Parathion
525.2	525.2	Water	Pendimethalin (Penoxaline)
525.2	525.2	Water	Phenanthrene
525.2	525.2	Water	Pyrene
525.2	525.2	Water	Terbacil
525.2	525.2	Water	Terbutylazine
525.2	525.2	Water	Thiobencarb
525.2	525.2	Water	Total Permethrin (mixed isomers)
525.2	525.2	Water	trans-Nonachlor
525.2	525.2	Water	Trifluralin



Method Summary

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

Job ID: 380-18572-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA MON
625	EPA 625 Base/Neutral and Acid Organics i	EPA	
8015	8015 - TPH DRO/ORO	EPA	
8015B	SW846 8015B Gasoline Range Organics	SW846	
525.2	Extraction of Semivolatile Compounds	EPA	EA MON

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

EA MON = Eurofins Eaton Monrovia, 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016, TEL (626)386-1100



Sample Summary

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

Job ID: 380-18572-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-18572-1	HALAWA WELLS PUMP 1	Water	08/24/22 09:20	08/25/22 10:10
380-18572-2	TB HALAWA WELLS PUMP 1	Water	08/24/22 09:20	08/25/22 10:10

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Date: 09-21-2022
EMAX Batch No.: 22H329

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 380-18572

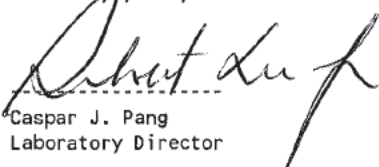
Enclosed is the Laboratory report for samples received on 08/26/22.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-18572-1	H329-01	08/24/22	WATER	TPH GASOLINE TPH DIESEL & MOTOR OIL
380-18572-2	H329-02	08/24/22	WATER	TPH GASOLINE

The results are summarized on the following pages.

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

Sincerely yours,



Caspar J. Pang
Laboratory Director

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

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

NELAP Accredited Certificate Number CA002912022-22
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
California ELAP Accredited Certificate Number 2672



Chain of Custody Record



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

22H329



Client Information (Sub Contract Lab)

Client Contact: **Frank, Debbie L** Lab PM: **Frank, Debbie L** Carrier Tracking No(s): **380-19515.1**
 Shipping/Receiving: **Debbie.Frank@eurofins.com** State of Origin: **Hawaii** Page: **Page 1 of 1**
 Company: **EMAX Laboratories Inc** Accreditations Required (See note): **State - Hawaii** Job #: **380-19572-1**

Address: **3051 Fujita Street, Torrance** Due Date Requested: **9/9/2022** Analysis Requested: **Sub (8015 Gas (Purgeable) LL (EAL))/ 8015 Gas (Purgeable) LL (EAL) and Motor Oil/ 8015 Diesel LL (EAL) and Motor Oil**
 City: **Torrance** TAT Requested (day(s)):
 State Zip: **CA, 90505** PO #:
 Phone: **WO #:**

Project Name: **RED-HILL** Project #: **38001111**
 Site: **Honolulu BWS Sites** SSSDW#: **38001111**
 Email: **WO #:**
 Project Name: **RED-HILL** Project #: **38001111**
 Site: **Honolulu BWS Sites** SSSDW#: **38001111**

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (G=Comp, G-grab)	MATRIX (W=Water, S=solid, O=Oxidant, BT=Butane, AA=Asphalt)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Sub (8015 Gas (Purgeable) LL (EAL))/ 8015 Gas (Purgeable) LL (EAL)	Sub (8015 Diesel LL (EAL) and Motor Oil)/ 8015 Diesel LL (EAL) and Motor Oil	Total Number of Containers	Special Instructions/Note:
1 HALAWA WELLS PUMP 1 (380-18572-1)	8/24/22	09:20	Water	Water	X	X	X	X	5	See Attached Instructions
2 TB HALAWA WELLS (380-18572-2)	8/24/22	09:20	Water	Water	X	X	X	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 out subcontractor laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) **Primary Deliverable Rank: 2**
 Empty Kit Relinquished by: **Date:**
 Relinquished by: **Date/Time:** **Company:**
 Relinquished by: **Date/Time:** **Company:**
 Relinquished by: **Date/Time:** **Company:**

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

Cooler Temperature(s) °C and Other Remarks: **03.6°**

REPORT ID: **22H329**



REFERENCE: EMAX-SM02 Rev. 12
SAMPLE RECEIPT FORM 1

Type of Delivery	Airbill / Tracking Number	ECN <u>22H329</u>
<input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others		Recipient <u>Alan Ramos</u>
<input type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery		Date <u>08/20/22</u> Time <u>11:00</u>

COC INSPECTION

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

Note: _____

PACKAGING INSPECTION

Container	<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition	<input type="checkbox"/> Custody Seal	<input type="checkbox"/> Intact	<input type="checkbox"/> Damaged
Packaging	<input checked="" type="checkbox"/> Bubble Pack	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Popcom
Temperatures (Cool, ≤6 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 <u>3.6</u> °C	<input type="checkbox"/> Cooler 2 _____ °C	<input type="checkbox"/> Cooler 3 _____ °C
Thermometer:	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °C
	<input type="checkbox"/> Cooler 9 _____ °C	<input type="checkbox"/> Cooler 10 _____ °C	

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

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1	1-6	D10		R8
2	7, 8	D7	two dates on label - 8/10/22 and 8/24/22	R1
2	7	D14		R4
<i>[Large handwritten signature]</i>				

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

NOTES/OBSERVATIONS:

SAMPLE MATRIX IS DRINKING WATER? YES NO

LEGEND:

Code Description-Sample Management	Code Description-Sample Management	Code Description-Sample Management
D1 Analysis is not indicated in _____	D13 Out of Holding Time	R1 Proceed as indicated in _____ COC <input type="checkbox"/> 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 <i>Informed Client</i>
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 _____

REVISIONS:

Sample Labeling <u>Socorro</u>	SRF <u>Alquira</u>	PM <u>AS</u>
Date <u>08/26/22</u>	Date <u>8/26/22</u>	Date <u>8/26/22</u>

REPORT ID: 22H329

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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

380-18572

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

SDG#: 22H329



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-18572

SDG : 22H329

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

A total of two(2) water samples were received on 08/26/22 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. VG39H11B - 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. VG39H11L/VG39H11C 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 H331-01M/H331-01S. 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 : 380-18572
 SDG NO. : 22H329
 Instrument ID : GCT039

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
									WATER
MBLK1W	VG39H11B	1	NA	08/26/2211:14	08/26/2211:14	EH26004A	EH26003A	22VG39H11	Method Blank
LCS1W	VG39H11L	1	NA	08/26/2211:51	08/26/2211:51	EH26005A	EH26003A	22VG39H11	Lab Control Sample (LCS)
LCD1W	VG39H11C	1	NA	08/26/2212:28	08/26/2212:28	EH26006A	EH26003A	22VG39H11	LCS Duplicate
380-18572-1	H329-01	1	NA	08/26/2218:39	08/26/2218:39	EH26016A	EH26015A	22VG39H11	Field Sample
380-18572-2	H329-02	1	NA	08/26/2219:16	08/26/2219:16	EH26017A	EH26015A	22VG39H11	Field Sample

FN - Filename
 % Moist - Percent Moisture



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SAMPLE RESULTS

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/24/22 09:20
Project     : 380-18572                   Date Received: 08/26/22
Batch No.   : 22H329                       Date Extracted: 08/26/22 18:39
Sample ID   : 380-18572-1                 Date Analyzed: 08/26/22 18:39
Lab Samp ID: H329-01                      Dilution Factor: 1
Lab File ID: EH26016A                     Matrix: WATER
Ext Btch ID: 22VG39H11                   % Moisture: NA
Calib. Ref.: EH26015A                     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	0.0348	0.0400	87	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: 08/24/22 09:20
Project    : 380-18572                   Date Received: 08/26/22
Batch No.  : 22H329                       Date Extracted: 08/26/22 19:16
Sample ID  : 380-18572-2                 Date Analyzed: 08/26/22 19:16
Lab Samp ID: H329-02                     Dilution Factor: 1
Lab File ID: EH26017A                    Matrix: WATER
Ext Btch ID: 22VG39H11                   % Moisture: NA
Calib. Ref.: EH26015A                    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	0.0351	0.0400	88	60-140

Notes:
Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

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QC SUMMARIES

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/26/22 11:14
Project    : 380-18572                   Date Received: 08/26/22
Batch No.  : 22H329                       Date Extracted: 08/26/22 11:14
Sample ID  : MBLK1W                       Date Analyzed: 08/26/22 11:14
Lab Samp ID: VG39H11B                   Dilution Factor: 1
Lab File ID: EH26004A                   Matrix: WATER
Ext Btch ID: 22VG39H11                 % Moisture: NA
Calib. Ref.: EH26003A                 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	0.0306	0.0400	76	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 : 380-18572
BATCH NO. : 22H329
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W       LCD1W
LAB SAMPLE ID : VG39H11B                         VG39H11L   VG39H11C
LAB FILE ID  : EH26004A                         EH26005A   EH26006A
DATE PREPARED : 08/26/22 11:14                  08/26/22 11:51  08/26/22 12:28
DATE ANALYZED : 08/26/22 11:14                  08/26/22 11:51  08/26/22 12:28
PREP BATCH   : 22VG39H11                        22VG39H11  22VG39H11
CALIBRATION REF: EH26003A                       EH26003A   EH26003A
  
```

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	0.398	80	0.500	0.433	87	8	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0397	99	0.0400	0.0414	104	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 : 380-18576
BATCH NO. : 22H331
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 380-18576-1                       380-18576-1MS
LAB SAMPLE ID : H331-01                         H331-01M
LAB FILE ID  : EH26020A                        EH26021A
DATE PREPARED : 08/26/22 21:07                 08/26/22 21:44
DATE ANALYZED : 08/26/22 21:07                 08/26/22 21:44
PREP BATCH   : 22VG39H11                       22VG39H11
CALIBRATION REF: EH26015A                      EH26015A
    
```

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	0.445	89	0.500	0.519	104	15	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0443	111	0.0400	0.0479	120	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-18572

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22H329



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-18572

SDG : 22H329

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 08/26/22 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. DSI004WB - 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 DSI004WL. 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 22H331-01M/22H331-01S. 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 : 380-18572

SDG NO. : 22H329
Instrument ID : D5

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Prep. Data FN	Batch	Notes
MBLK1W	DS1004WB	1	NA	09/02/2217:20	09/01/2217:30	L102010A	L102003A	22DS1004W	Method Blank
LCS1W	DS1004WL	1	NA	09/02/2217:39	09/01/2217:30	L102011A	L102003A	22DS1004W	Lab Control Sample (LCS)
380-18572-1	H329-01	1	NA	09/02/2218:36	09/01/2217:30	L102014A	L102003A	22DS1004W	Field Sample

FN - Filename
% Moist - Percent Moisture



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SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/24/22 09:20
Project     : 380-18572                   Date Received: 08/26/22
Batch No.   : 22H329                       Date Extracted: 09/01/22 17:30
Sample ID   : 380-18572-1                 Date Analyzed: 09/02/22 18:36
Lab Samp ID: 22H329-01                     Dilution Factor: 1
Lab File ID: LI02014A                       Matrix: WATER
Ext Btch ID: 22DSI004W                       % Moisture: NA
Calib. Ref.: LI02003A                       Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)		
Diesel	ND	0.027	0.014		
Motor Oil	ND	0.054	0.027		
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT	
Bromobenzene	0.454	0.540	84	60-130	
Hexacosane	0.144	0.135	106	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 : 930ml Final Volume : 5ml
Prepared by : JMuert Analyzed by : SDeeso

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QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

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=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 09/01/22 17:30
Project    : 380-18572                   Date Received: 09/01/22
Batch No.  : 22H329                       Date Extracted: 09/01/22 17:30
Sample ID  : MBLK1W                       Date Analyzed: 09/02/22 17:20
Lab Samp ID: DSI004WB                     Dilution Factor: 1
Lab File ID: LI02010A                     Matrix: WATER
Ext Btch ID: 22DSI004W                   % Moisture: NA
Calib. Ref.: LI02003A                    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	0.490	0.500	98	60-130
Hexacosane	0.126	0.125	101	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 : JMuert Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-18572
BATCH NO. : 22H329
METHOD : 3520C/8015B

=====

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR:	1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSI004WB	DSI004WL
LAB FILE ID	: LI02010A	LI02011A
DATE PREPARED	: 09/01/22 17:30	09/01/22 17:30
DATE ANALYZED	: 09/02/22 17:20	09/02/22 17:39
PREP BATCH	: 22DSI004W	22DSI004W
CALIBRATION REF:	LI02003A	LI02003A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
-----	-----	-----	-----	-----	-----
Diesel	ND	2.50	2.46	98	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
-----	-----	-----	-----	-----
Bromobenzene	0.500	0.538	108	60-130
Hexacosane	0.125	0.131	105	60-130

=====

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-18576
BATCH NO. : 22H331
METHOD : 3520C/8015B

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=====
MATRIX      : WATER                                     % MOISTURE:NA
DILUTION FACTOR: 1                                   1
SAMPLE ID   : 380-18576-1                             380-18576-1MSD
LAB SAMPLE ID : 22H331-01                             22H331-01S
LAB FILE ID  : LI02016A                               LI02017A
DATE PREPARED : 09/01/22 17:30                       09/01/22 17:30
DATE ANALYZED : 09/02/22 19:13                       09/02/22 19:50
PREP BATCH   : 22DSI004W                             22DSI004W
CALIBRATION REF: LI02003A                             LI02003A
    
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.78	3.23	116	2.80	2.97	106	8	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.555	0.497	90	0.560	0.485	87	60-130
Hexacosane	0.139	0.147	106	0.140	0.141	101	60-130

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

September 06, 2022

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

Project Name: RED-HILL Project # 38001111 Job # 380-18572-1
 Physis Project ID: 1407003-282

Dear Debbie,


Enclosed are the analytical results for the sample submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 8/26/2022. 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
 714 602-5320
 Extension 202
 mistymercier@physislabs.com



PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-282

RED-HILL Project # 38001111 Job # 380-18572-1

Total Samples: 1

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
99757	HALAWA WELLS PUMP 1	(380-18572-1)	8/24/2022	9:20	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

QUALITY ASSURANCE SUMMARY

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

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

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

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

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

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

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

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

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

SURROGATES: A surrogate is a pure analyte unlikely to be found in any project sample, behaves similarly to

the target analyte and most often used with organic analytical procedures. Surrogates are added in known concentration to all samples and are measured to indicate overall efficiency of the method including processing and analyses.

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

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

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

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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

CASE NARRATIVE

QUALIFIER NOTES

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

ND

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

BIANALYTICALS

REPORT

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Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed	
Sample ID: 99757-R1	HALAWA WELLS PUMP 1 (380-1857 Matrix: Samplewater)						Sampled:	24-Aug-22	9:20	Received:	26-Aug-22	
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-38104	29-Aug-22	04-Sep-22	



Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed	
Sample ID: 99757-R1	HALAWA WELLS PUMP 1 (380-1857 Matrix: Samplewater)						Sampled: 24-Aug-22 9:20			Received: 26-Aug-22		
(d10-Acenaphthene)	EPA 625.1	% Recovery	78	1			Total		O-38104	29-Aug-22	04-Sep-22	
(d10-Phenanthrene)	EPA 625.1	% Recovery	84	1			Total		O-38104	29-Aug-22	04-Sep-22	
(d12-Chrysene)	EPA 625.1	% Recovery	83	1			Total		O-38104	29-Aug-22	04-Sep-22	
(d12-Perylene)	EPA 625.1	% Recovery	79	1			Total		O-38104	29-Aug-22	04-Sep-22	
(d8-Naphthalene)	EPA 625.1	% Recovery	69	1			Total		O-38104	29-Aug-22	04-Sep-22	
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
D benz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
D benzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	
D benzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22	

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-38104	29-Aug-22	04-Sep-22
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-38104	29-Aug-22	04-Sep-22



QUALITY CONTROL REPORT

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Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE SOURCE		ACCURACY		PRECISION		QA CODEc
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Sample ID: 99756-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:				
		Method: EPA 625.1			Batch ID: O-38104		Prepared: 29-Aug-22		Analyzed: 03-Sep-22				
Disalicylideneprapanediamin	Total	ND	1	0.05	0.1	µg/L							
Sample ID: 99756-BS1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:				
		Method: EPA 625.1			Batch ID: O-38104		Prepared: 29-Aug-22		Analyzed: 03-Sep-22				
Disalicylideneprapanediamin	Total	30.5	1	0.05	0.1	µg/L	50	0	61	50 - 150%	PASS		
Sample ID: 99756-BS2		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:				
		Method: EPA 625.1			Batch ID: O-38104		Prepared: 29-Aug-22		Analyzed: 03-Sep-22				
Disalicylideneprapanediamin	Total	31.9	1	0.05	0.1	µg/L	50	0	64	50 - 150%	PASS	5	30 PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODEc
							LEVEL	RESULT	%	LIMITS	%
Sample ID: 99756-B1		QAQC Procedural Blank			Matrix: BlankMatrix		Sampled:		Received:		
	Method: EPA 625.1					Batch ID: O-38104	Prepared: 29-Aug-22	Analyzed: 03-Sep-22			
(d10-Acenaphthene)	Total	84	1			% Recovery	100	84	65 - 113%	PASS	
(d10-Phenanthrene)	Total	87	1			% Recovery	100	87	80 - 111%	PASS	
(d12-Chrysene)	Total	84	1			% Recovery	100	84	60 - 139%	PASS	
(d12-Perylene)	Total	83	1			% Recovery	100	83	36 - 161%	PASS	
(d8-Naphthalene)	Total	78	1			% Recovery	100	78	44 - 119%	PASS	
1-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
1-Methylphenanthrene	Total	ND	1	0.001	0.005	µg/L					
2,3,5-Trimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
2,6-Dimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
2-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L					
Acenaphthene	Total	ND	1	0.001	0.005	µg/L					
Acenaphthylene	Total	ND	1	0.001	0.005	µg/L					
Anthracene	Total	ND	1	0.001	0.005	µg/L					
Benz[a]anthracene	Total	ND	1	0.001	0.005	µg/L					
Benzo[a]pyrene	Total	ND	1	0.001	0.005	µg/L					
Benzo[b]fluoranthene	Total	ND	1	0.001	0.005	µg/L					
Benzo[e]pyrene	Total	ND	1	0.001	0.005	µg/L					
Benzo[g,h,i]perylene	Total	ND	1	0.001	0.005	µg/L					
Benzo[k]fluoranthene	Total	ND	1	0.001	0.005	µg/L					
Biphenyl	Total	ND	1	0.001	0.005	µg/L					
Chrysene	Total	ND	1	0.001	0.005	µg/L					
Dibenz[a,h]anthracene	Total	ND	1	0.001	0.005	µg/L					
Dibenzo[a,l]pyrene	Total	ND	1	0.001	0.005	µg/L					

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

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



Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY	PRECISION	QA CODE	
							LEVEL	RESULT	%	LIMITS	%	LIMITS
Sample ID: 99756-BS1		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:		Received:		
Method: EPA 625.1		Batch ID: O-38104			Prepared: 29-Aug-22		Analyzed: 03-Sep-22					
(d10-Acenaphthene)	Total	83	1			% Recovery	100	0	83	65 - 113%	PASS	
(d10-Phenanthrene)	Total	86	1			% Recovery	100	0	86	80 - 111%	PASS	
(d12-Chrysene)	Total	84	1			% Recovery	100	0	84	60 - 139%	PASS	
(d12-Perylene)	Total	83	1			% Recovery	100	0	83	36 - 161%	PASS	
(d8-Naphthalene)	Total	74	1			% Recovery	100	0	74	44 - 119%	PASS	
1-Methylnaphthalene	Total	0.397	1	0.001	0.005	µg/L	0.5	0	79	49 - 117%	PASS	
1-Methylphenanthrene	Total	0.492	1	0.001	0.005	µg/L	0.5	0	98	66 - 127%	PASS	
2,3,5-Trimethylnaphthalene	Total	0.405	1	0.001	0.005	µg/L	0.5	0	81	57 - 120%	PASS	
2,6-Dimethylnaphthalene	Total	0.389	1	0.001	0.005	µg/L	0.5	0	78	54 - 117%	PASS	
2-Methylnaphthalene	Total	0.402	1	0.001	0.005	µg/L	0.5	0	80	47 - 130%	PASS	
Acenaphthene	Total	0.403	1	0.001	0.005	µg/L	0.5	0	81	53 - 131%	PASS	
Acenaphthylene	Total	0.389	1	0.001	0.005	µg/L	0.5	0	78	43 - 140%	PASS	
Anthracene	Total	0.412	1	0.001	0.005	µg/L	0.5	0	82	58 - 135%	PASS	
Benz[a]anthracene	Total	0.436	1	0.001	0.005	µg/L	0.5	0	87	55 - 145%	PASS	
Benzo[a]pyrene	Total	0.402	1	0.001	0.005	µg/L	0.5	0	80	51 - 143%	PASS	
Benzo[b]fluoranthene	Total	0.515	1	0.001	0.005	µg/L	0.5	0	103	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	0.424	1	0.001	0.005	µg/L	0.5	0	85	63 - 133%	PASS	
Benzo[k]fluoranthene	Total	0.462	1	0.001	0.005	µg/L	0.5	0	92	56 - 145%	PASS	
Biphenyl	Total	0.392	1	0.001	0.005	µg/L	0.5	0	78	56 - 119%	PASS	
Chrysene	Total	0.402	1	0.001	0.005	µg/L	0.5	0	80	56 - 141%	PASS	
Dibenz[a,h]anthracene	Total	0.522	1	0.001	0.005	µg/L	0.5	0	104	55 - 150%	PASS	
Dibenzo[a,l]pyrene	Total	0.285	1	0.001	0.005	µg/L	0.5	0	57	50 - 150%	PASS	

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE _c
							LEVEL	RESULT	%	LIMITS	%	LIMITS	
Dibenzothiophene	Total	0.412	1	0.001	0.005	µg/L	0.5	0	82	75 - 113%	PASS		
Fluoranthene	Total	0.501	1	0.001	0.005	µg/L	0.5	0	100	60 - 146%	PASS		
Fluorene	Total	0.433	1	0.001	0.005	µg/L	0.5	0	87	58 - 131%	PASS		
Indeno[1,2,3-cd]pyrene	Total	0.546	1	0.001	0.005	µg/L	0.5	0	109	50 - 151%	PASS		
Naphthalene	Total	0.364	1	0.001	0.005	µg/L	0.5	0	73	41 - 126%	PASS		
Perylene	Total	0.444	1	0.001	0.005	µg/L	0.5	0	89	48 - 141%	PASS		
Phenanthrene	Total	0.408	1	0.001	0.005	µg/L	0.5	0	82	67 - 127%	PASS		
Pyrene	Total	0.506	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	SOURCE	ACCURACY		PRECISION		QA CODEc		
							LEVEL	RESULT	%	LIMITS	%	LIMITS			
Sample ID: 99756-BS2		QAQC Procedural Blank			Matrix: BlankMatrix			Sampled:			Received:				
		Method: EPA 625.1			Batch ID: O-38104			Prepared: 29-Aug-22			Analyzed: 03-Sep-22				
(d10-Acenaphthene)	Total	86	1				% Recovery	100	0	86	65 - 113%	PASS	4	30	PASS
(d10-Phenanthrene)	Total	88	1				% Recovery	100	0	88	80 - 111%	PASS	2	30	PASS
(d12-Chrysene)	Total	82	1				% Recovery	100	0	82	60 - 139%	PASS	2	30	PASS
(d12-Perylene)	Total	89	1				% Recovery	100	0	89	36 - 161%	PASS	7	30	PASS
(d8-Naphthalene)	Total	81	1				% Recovery	100	0	81	44 - 119%	PASS	9	30	PASS
1-Methylnaphthalene	Total	0.408	1	0.001	0.005	µg/L		0.5	0	82	49 - 117%	PASS	4	30	PASS
1-Methylphenanthrene	Total	0.463	1	0.001	0.005	µg/L		0.5	0	93	66 - 127%	PASS	5	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.436	1	0.001	0.005	µg/L		0.5	0	87	57 - 120%	PASS	7	30	PASS
2,6-Dimethylnaphthalene	Total	0.413	1	0.001	0.005	µg/L		0.5	0	83	54 - 117%	PASS	6	30	PASS
2-Methylnaphthalene	Total	0.417	1	0.001	0.005	µg/L		0.5	0	83	47 - 130%	PASS	4	30	PASS
Acenaphthene	Total	0.418	1	0.001	0.005	µg/L		0.5	0	84	53 - 131%	PASS	4	30	PASS
Acenaphthylene	Total	0.421	1	0.001	0.005	µg/L		0.5	0	84	43 - 140%	PASS	7	30	PASS
Anthracene	Total	0.426	1	0.001	0.005	µg/L		0.5	0	85	58 - 135%	PASS	4	30	PASS
Benz[a]anthracene	Total	0.42	1	0.001	0.005	µg/L		0.5	0	84	55 - 145%	PASS	4	30	PASS
Benzo[a]pyrene	Total	0.465	1	0.001	0.005	µg/L		0.5	0	93	51 - 143%	PASS	15	30	PASS
Benzo[b]fluoranthene	Total	0.517	1	0.001	0.005	µg/L		0.5	0	103	46 - 165%	PASS	0	30	PASS
Benzo[e]pyrene	Total	0.481	1	0.001	0.005	µg/L		0.5	0	96	42 - 152%	PASS	4	30	PASS
Benzo[g,h,i]perylene	Total	0.431	1	0.001	0.005	µg/L		0.5	0	86	63 - 133%	PASS	1	30	PASS
Benzo[k]fluoranthene	Total	0.465	1	0.001	0.005	µg/L		0.5	0	93	56 - 145%	PASS	1	30	PASS
Biphenyl	Total	0.413	1	0.001	0.005	µg/L		0.5	0	83	56 - 119%	PASS	6	30	PASS
Chrysene	Total	0.398	1	0.001	0.005	µg/L		0.5	0	80	56 - 141%	PASS	0	30	PASS
Dibenz[a,h]anthracene	Total	0.525	1	0.001	0.005	µg/L		0.5	0	105	55 - 150%	PASS	1	30	PASS
Dibenzo[a,l]pyrene	Total	0.335	1	0.001	0.005	µg/L		0.5	0	67	50 - 150%	PASS	16	30	PASS

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE	SOURCE	ACCURACY		PRECISION		QA CODE _c	
							LEVEL	RESULT	%	LIMITS	%	LIMITS		
Dibenzothiophene	Total	0.429	1	0.001	0.005	µg/L	0.5	0	86	75 - 113%	PASS	5	30	PASS
Fluoranthene	Total	0.475	1	0.001	0.005	µg/L	0.5	0	95	60 - 146%	PASS	5	30	PASS
Fluorene	Total	0.468	1	0.001	0.005	µg/L	0.5	0	94	58 - 131%	PASS	8	30	PASS
Indeno[1,2,3-cd]pyrene	Total	0.551	1	0.001	0.005	µg/L	0.5	0	110	50 - 151%	PASS	1	30	PASS
Naphthalene	Total	0.393	1	0.001	0.005	µg/L	0.5	0	79	41 - 126%	PASS	8	30	PASS
Perylene	Total	0.453	1	0.001	0.005	µg/L	0.5	0	91	48 - 141%	PASS	2	30	PASS
Phenanthrene	Total	0.423	1	0.001	0.005	µg/L	0.5	0	85	67 - 127%	PASS	4	30	PASS
Pyrene	Total	0.473	1	0.001	0.005	µg/L	0.5	0	95	54 - 156%	PASS	6	30	PASS

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PHYSIS

TENTATIVELY

IDENTIFIED COMPOUNDS

ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

Sample ID: 99757

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
32.5270	7.4247	1111	Anthracene-D10-	1517-22-2	96
			No Compounds Met The Search Criteria		

Concentration estimated using the response for Anthracene-d10

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Sample ID: B1_38104

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
32.5320	8.1329	1111	Anthracene-D10-	1517-22-2	97
17.6300	0.9559	131	Propanoic acid, 2-methyl-, 3-hydroxy-2,2,4-trimethylpentyl ester	77-68-9	97

Concentration estimated using the response for Anthracene-d10

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PERFORMANCE CHAIN OF CUSTODY

TERRA ENVIRONMENTAL LABORATORIES, INC. AURA

Innovative Solutions for Nature

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

Client Information (Sub Contract Lab)				Sampler:	Lab P/N:	Carrier Tracking No(s):	COC No:	
Client Contact:				Phone:	E-Mail:	State of Origin:	380-19516-1	
Shipping/Receiving:				Accreditations Required (See note):			Page:	
Company:				State - Hawaii			Page 1 of 1	
Physis Environmental Laboratories				Job #:				
Address:				380-18572-1				
1904 Wright Circle,				Preservation Codes:				
City:				A - HCL				
Anahiem				B - NaOH				
State, Zip:				C - Zn Acetate				
CA, 92806				D - Nitric Acid				
Phone:				E - NaHSO4				
PO #:				F - MeOH				
WO #:				G - Ammonia				
Project Name:				H - Acetic Acid				
RED-HILL				I - Ice				
Site:				J - DI Water				
Honolulu BWS Sites				K - EDTA				
SSOW #:				L - EDA				
Project #:				M - Hexane				
38001111				N - None				
Sample Identification - Client ID (Lab ID)				O - AsHClO2				
HALAWA WELLS PUMP 1 (380-18572-1)				P - Na2O4S				
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	MATRIX	Q - Na2SC03				
8/24/22	09:20	Water	Water	R - Na2S2O3				
				S - H2SO4				
				T - TSP Dodecyltrate				
				U - Acetone				
				V - MCAA				
				W - pH 4.5				
				Y - Trizma				
				Z - other (specify)				
				Other:				
				Special Instructions/Note:				
				Total Number of Containers:				
				2				
				See Attached Instructions				
<p>Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/elements 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 Eurofins Eaton Analytical, LLC.</p>								
<p>Possible Hazard Identification</p> <p>Unconfirmed <input type="checkbox"/> Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2 <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>								
Empty Kit Relinquished by:				Date:				Method of Shipment:
Relinquished by:				Date Time:		Time:		
Relinquished by:				Date Time:		Time:		
Relinquished by:				Date Time:		Time:		
Relinquished by:				Date Time:		Time:		
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

ICOC No:
380-19516

Containers

<u>Count</u>	<u>Container Type</u>	<u>Preservative</u>
2	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate

Subcontract Method Instructions

Sample IDs	Method	Method Description	Method Comments
1	SUBCONTRACT	SUB (625 PAH Physis LL (EAL) + TICs)/ 625 PAH Physis LL (EAL) + TICs	Palo Rojo PAH Fraction List + TICs

Project Iteration ID: 1407003-282
 Client Name: Eurofins Eaton Analytical
 Project Name: RED-HILL Project # 38001111 Job # 380-18572-1
 COC Page Number: 3 of 3
 Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

1. Initials Received By: [Signature]
2. Date Received: 8/26/22
3. Time Received: 1230
4. Client Name: Eurofins
5. Courier Information: (Please circle)
 - Client
 - UPS
 - Area Fast
 - DRS
 - FedEx
 - GSO/GLS
 - Ontrac
 - PAMS
 - PHYSIS Driver:
 - 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
 - Carboy(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): 4.2
 Used I/R Thermometer # 1-2

Inspection Info

1. Initials Inspected By: [Signature]

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:



Eaton Analytical

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629
Phone: 626 386 1100
Fax: 626 386 1101
800 566 LABS (800 566 5227)

CHAIN OF CUSTODY RECORD

EUROFINS EATON ANALYTICAL USE ONLY:

LOG IN COMMENTS:
SAMPLES CHECKED AGAINST COC BY: GR
SAMPLES LOGGED IN BY:
SAMPLES REC'D DAY OF COLLECTION? (check for yes)
SAMPLE TEMP RECEIVED AT:
Colton / No. California / Arizona
Monrovia
CONDITION OF BLUE ICE: Frozen Partially Frozen X Thawed No Ice
METHOD OF SHIPMENT: Pick-Up / Walk-In FedEx / UPS / DHL / Area Fast / Top Line / Other:

TO BE COMPLETED BY SAMPLER:
COMPLIANCE SAMPLES (check for yes)
NON-COMPLIANCE SAMPLES (check for yes) X
REGULATION INVOLVED:
Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION (eg SDWA, Phase V, NPDES, FDA...)
SEE ATTACHED BOTTLE ORDER FOR ANALYSES
list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)
PROJECT CODE: Red Hill Special
SAMPLE GROUP: Weekly_RED_HILL (2022)
CLIENT LAB ID: 331-023
SAMPLE ID: Halawa Wells Pump 1
DATE: 8/24/22 0920
FIELD DATA: MATRIX * RGW
TAT requested: rush by adv notice only
STD 1 wk X 3 day 2 day 1 day
FIELD DATA:
ANALYSES: 825 2 PREG + (MOD) 825plus TICS (2x1L) 2 2 2 2
825 PAH + MS/MSD Volume (2x1L) 2 2 2 2
Subcontract - 8015 Diesel and Motor Oil C (2x1L) 4 4 2 2
Subcontract - 8015 Gas (Purgeable) Gas (4x0mL) 4 4 2 2
8015 Gas C TB (2x40mL) 2 2 2 2
SAMPLER COMMENTS: 380-18572 COC
Temp Blank: 4 °C

* MATRIX TYPES: RSW = Raw Surface Water
RGW = Raw Ground Water
CFW = Chlor(am)inated Finished Water
FW = Other Finished Water
SEAW = Sea Water
WW = Waste Water
BW = Bottled Water
SW = Storm Water
SO = Soil
SL = Sludge
O = Other - Please Identify
SAMPLED BY: [Redacted]
RELINQUISHED BY: Lesli Laanui
RECEIVED BY: Heidi Costa
RELINQUISHED BY: Heidi Costa
RECEIVED BY: [Redacted]
SIGNATURE:
PRINT NAME: Lesli Laanui
COMPANY/TITLE: Honolulu Board of Water Supply
DATE: 8/24/2022
TIME: 0920
COMPANY/TITLE: Honolulu Board of Water Supply
DATE: 8/24/2022
TIME: 1200
COMPANY/TITLE: EFA
DATE: 8-25-22
TIME: 1010
PAGE 1 OF 1



INTERNAL CHAIN OF CUSTODY RECORD

eurolife | **EUROLIFE Analytical**

EEA Folder Number: EUROLIFE Analytical

IR Gun ID = 649A (Observation = 3.6 °C) (Corr. Factor = 0.3 °C) (Final = 3.3 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In (FedEx) UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 18°C (if received after 2 hours of sample collection)

(If out of temperature ranges for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants)

4) Dioxin (1813 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

5) pH Check, Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date: _____ Results: _____

6) Chlorine check, Manufacturer: Sansafe, Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon
 Headspace: No Samples with Headspace (see below): _____
 Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)
 Example from headspace containers: Methods 816.4, HAA(8201,822), 806, 816M, 820, 820L, 820S, 820T, 820U, 820V, 820W, 820X, 820Y, 820Z, 820AA, 820AB, 820AC, 820AD, 820AE, 820AF, 820AG, 820AH, 820AI, 820AJ, 820AK, 820AL, 820AM, 820AN, 820AO, 820AP, 820AQ, 820AR, 820AS, 820AT, 820AU, 820AV, 820AW, 820AX, 820AY, 820AZ, 820BA, 820BB, 820BC, 820BD, 820BE, 820BF, 820BG, 820BH, 820BI, 820BJ, 820BK, 820BL, 820BM, 820BN, 820BO, 820BP, 820BQ, 820BR, 820BS, 820BT, 820BU, 820BV, 820BW, 820BX, 820BY, 820BZ, 820CA, 820CB, 820CC, 820CD, 820CE, 820CF, 820CG, 820CH, 820CI, 820CJ, 820CK, 820CL, 820CM, 820CN, 820CO, 820CP, 820CQ, 820CR, 820CS, 820CT, 820CU, 820CV, 820CW, 820CX, 820CY, 820CZ, 820DA, 820DB, 820DC, 820DD, 820DE, 820DF, 820DG, 820DH, 820DI, 820DJ, 820DK, 820DL, 820DM, 820DN, 820DO, 820DP, 820DQ, 820DR, 820DS, 820DT, 820DU, 820DV, 820DW, 820DX, 820DY, 820DZ, 820EA, 820EB, 820EC, 820ED, 820EE, 820EF, 820EG, 820EH, 820EI, 820EJ, 820EK, 820EL, 820EM, 820EN, 820EO, 820EP, 820EQ, 820ER, 820ES, 820ET, 820EU, 820EV, 820EW, 820EX, 820EY, 820EZ, 820FA, 820FB, 820FC, 820FD, 820FE, 820FF, 820FG, 820FH, 820FI, 820FJ, 820FK, 820FL, 820FM, 820FN, 820FO, 820FP, 820FQ, 820FR, 820FS, 820FT, 820FU, 820FV, 820FW, 820FX, 820FY, 820FZ, 820GA, 820GB, 820GC, 820GD, 820GE, 820GF, 820GG, 820GH, 820GI, 820GJ, 820GK, 820GL, 820GM, 820GN, 820GO, 820GP, 820GQ, 820GR, 820GS, 820GT, 820GU, 820GV, 820GW, 820GX, 820GY, 820GZ, 820HA, 820HB, 820HC, 820HD, 820HE, 820HF, 820HG, 820HH, 820HI, 820HJ, 820HK, 820HL, 820HM, 820HN, 820HO, 820HP, 820HQ, 820HR, 820HS, 820HT, 820HU, 820HV, 820HW, 820HX, 820HY, 820HZ, 820IA, 820IB, 820IC, 820ID, 820IE, 820IF, 820IG, 820IH, 820II, 820IJ, 820IK, 820IL, 820IM, 820IN, 820IO, 820IP, 820IQ, 820IR, 820IS, 820IT, 820IU, 820IV, 820IW, 820IX, 820IY, 820IZ, 820JA, 820JB, 820JC, 820JD, 820JE, 820JF, 820JG, 820JH, 820JI, 820JJ, 820JK, 820JL, 820JM, 820JN, 820JO, 820JP, 820JQ, 820JR, 820JS, 820JT, 820JU, 820JV, 820JW, 820JX, 820JY, 820JZ, 820KA, 820KB, 820KC, 820KD, 820KE, 820KF, 820KG, 820KH, 820KI, 820KJ, 820KK, 820KL, 820KM, 820KN, 820KO, 820KP, 820KQ, 820KR, 820KS, 820KT, 820KU, 820KV, 820KW, 820KX, 820KY, 820KZ, 820LA, 820LB, 820LC, 820LD, 820LE, 820LF, 820LG, 820LH, 820LI, 820LJ, 820LK, 820LL, 820LM, 820LN, 820LO, 820LP, 820LQ, 820LR, 820LS, 820LT, 820LU, 820LV, 820LW, 820LX, 820LY, 820LZ, 820MA, 820MB, 820MC, 820MD, 820ME, 820MF, 820MG, 820MH, 820MI, 820MJ, 820MK, 820ML, 820MN, 820MO, 820MP, 820MQ, 820MR, 820MS, 820MT, 820MU, 820MV, 820MW, 820MX, 820MY, 820MZ, 820NA, 820NB, 820NC, 820ND, 820NE, 820NF, 820NG, 820NH, 820NI, 820NJ, 820NK, 820NL, 820NM, 820NO, 820NP, 820NQ, 820NR, 820NS, 820NT, 820NU, 820NV, 820NW, 820NX, 820NY, 820NZ, 820OA, 820OB, 820OC, 820OD, 820OE, 820OF, 820OG, 820OH, 820OI, 820OJ, 820OK, 820OL, 820OM, 820ON, 820OO, 820OP, 820OQ, 820OR, 820OS, 820OT, 820OU, 820OV, 820OW, 820OX, 820OY, 820OZ, 820PA, 820PB, 820PC, 820PD, 820PE, 820PF, 820PG, 820PH, 820PI, 820PJ, 820PK, 820PL, 820PM, 820PN, 820PO, 820PP, 820PQ, 820PR, 820PS, 820PT, 820PU, 820PV, 820PW, 820PX, 820PY, 820PZ, 820QA, 820QB, 820QC, 820QD, 820QE, 820QF, 820QG, 820QH, 820QI, 820QJ, 820QK, 820QL, 820QM, 820QN, 820QO, 820QP, 820QQ, 820QR, 820QS, 820QT, 820QU, 820QV, 820QW, 820QX, 820QY, 820QZ, 820RA, 820RB, 820RC, 820RD, 820RE, 820RF, 820RG, 820RH, 820RI, 820RJ, 820RK, 820RL, 820RM, 820RN, 820RO, 820RP, 820RQ, 820RR, 820RS, 820RT, 820RU, 820RV, 820RW, 820RX, 820RY, 820RZ, 820SA, 820SB, 820SC, 820SD, 820SE, 820SF, 820SG, 820SH, 820SI, 820SJ, 820SK, 820SL, 820SM, 820SN, 820SO, 820SP, 820SQ, 820SR, 820SS, 820ST, 820SU, 820SV, 820SW, 820SX, 820SY, 820SZ, 820TA, 820TB, 820TC, 820TD, 820TE, 820TF, 820TG, 820TH, 820TI, 820TJ, 820TK, 820TL, 820TM, 820TN, 820TO, 820TP, 820TQ, 820TR, 820TS, 820TT, 820TU, 820TV, 820TW, 820TX, 820TY, 820TZ, 820UA, 820UB, 820UC, 820UD, 820UE, 820UF, 820UG, 820UH, 820UI, 820UJ, 820UK, 820UL, 820UM, 820UN, 820UO, 820UP, 820UQ, 820UR, 820US, 820UT, 820UU, 820UV, 820UW, 820UX, 820UY, 820UZ, 820VA, 820VB, 820VC, 820VD, 820VE, 820VF, 820VG, 820VH, 820VI, 820VJ, 820VK, 820VL, 820VM, 820VN, 820VO, 820VP, 820VQ, 820VR, 820VS, 820VT, 820VU, 820VV, 820VW, 820VX, 820VY, 820VZ, 820WA, 820WB, 820WC, 820WD, 820WE, 820WF, 820WG, 820WH, 820WI, 820WJ, 820WK, 820WL, 820WM, 820WN, 820WO, 820WP, 820WQ, 820WR, 820WS, 820WT, 820WU, 820WV, 820WW, 820WX, 820WY, 820WZ, 820XA, 820XB, 820XC, 820XD, 820XE, 820XF, 820XG, 820XH, 820XI, 820XJ, 820XK, 820XL, 820XM, 820XN, 820XO, 820XP, 820XQ, 820XR, 820XS, 820XT, 820XU, 820XV, 820XW, 820XX, 820XY, 820XZ, 820YA, 820YB, 820YC, 820YD, 820YE, 820YF, 820YG, 820YH, 820YI, 820YJ, 820YK, 820YL, 820YM, 820YN, 820YO, 820YP, 820YQ, 820YR, 820YS, 820YT, 820YU, 820YV, 820YW, 820YX, 820YY, 820YZ, 820ZA, 820ZB, 820ZC, 820ZD, 820ZE, 820ZF, 820ZG, 820ZH, 820ZI, 820ZJ, 820ZK, 820ZL, 820ZM, 820ZN, 820ZO, 820ZP, 820ZQ, 820ZR, 820ZS, 820ZT, 820ZU, 820ZV, 820ZW, 820ZX, 820ZY, 820ZZ

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
<i>Heidi Castro</i>	Heidi Castro	Eurolife Eaton Analytical	8-25-27	10:10
SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME

SAMPLES CHECKED AGAINST ODD BY: _____

WEEKLY

Bottle Order Information

Bottle Order: RUSH RED-HILL WEEKLY
Bottle Order #:
Request From Client:
Date Order Posted: Ready To Process
Order Status:
Prepared By:
Deliver By Date:
Lab Project Number: 38001111
PWSID: HI0000331

Order Completion Information

Creator:
Filled by:
Sent Date:
Sent Via:
Tracking #:

Method	bottles/set	Bottle Type	Description
525.2 PREC + (MOD) 525plus TICS	2	- 1 L amber glass	[45 mg sulfite + 2mL 6N HCL] 2
625 PAH + MS/MSD Volume	2	- 1 L amber glass	[1 mL Thio 8%] 2
Subcontract 8015 Diesel LL (EAL) & Motor Oil	2	- 1 L amber glass	[1 mL Thio 8%] 2
Subcontract - 8015 Gas (Purgeable)	4	- 40ml amber glass	[1 drop Thio + HCl dropper] 4
8015 Gas_C TB	2	- 40ml amber glass vial	[1 drop Thio + HCL] 2

Total bottles: 8 (1L) + 4 (40mL) + 2 (TB) = 12

Notes: WEEKLY Red Hill set for Halawa Wells Pump 1



ORIGIN ID:HIKA (908) 748-5840
BWS CHEMLAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST.
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES US

SHIP DATE: 24AUG22
ACTWGT: 75.00 LB
CAD: 100205419/NET4530

BILL RECIPIENT

TO **C CHUCK**
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

(626) 386-1178 REF

INV/ PO DEPT



THU - 25 AUG 10:30A
PRIORITY OVERNIGHT

TRK# 7777 5499 5986

0201

WZ WHPA
91016
CA-US BUR



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.

2. Fold the printed page along the horizontal line.

3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-18572-1

Login Number: 18572

List Source: Eurofins Eaton Monrovia

List Number: 1

Creator: Segura, Ryan

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	