

## ANALYTICAL REPORT

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Tel: (626)386-1100

Laboratory Job ID: 380-1130-1  
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:

10/19/2022 1:04:34 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)



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Debbie Frank  
Project Manager  
10/19/2022 1:04:34 PM





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# Definitions/Glossary

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

Job ID: 380-1130-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
F1	MS and/or MSD recovery exceeds control limits.

### 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.

### Subcontract

Qualifier	Qualifier Description
U	This analyte was not detected.

## Glossary

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

# Case Narrative

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

Job ID: 380-1130-1

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## Job ID: 380-1130-1

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### Laboratory: Eurofins Eaton Monrovia

#### Narrative

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#### Job Narrative 380-1130-1

#### Comments

The sublab's data is not able to be imported into EEA TALS at the time of this submission. The detection summary report only applies to EEA data. See the attached sublab's data report for sample results. The sub's Data is Non Detect \_\_ / \_\_ has some Detections

#### Receipt

The samples were received on 5/4/2022 11:11 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.6° C, 4.1° C, 4.5° C, 5.2° C and 5.3° C.

#### GC/MS Semi VOA

Method 525.2: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 380-3642 and analytical batch 380-3927 recovered outside control limits for the following analytes: Butachlor and Chlorobenzilate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 525.2: The method blank for preparation batch 380-3642 and analytical batch 380-3927 contained Di(2-ethylhexyl)adipate and Di-n-butyl phthalate above the method detection limit (MDL). Associated samples were not re-analyzed because results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 525.2: The MRL check standard for preparation batch 380-3642 and analytical batch 380-3927 recovered outside control limits for the following analytes: Bromacil, Butylbenzylphthalate, Endrin and Pendimethalin (Penoxaline). These analytes were biased high in the MRL and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or 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.

# Detection Summary

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

Job ID: 380-1130-1

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**Client Sample ID: MOANALUA WELLS (331-223-TP202)**

**Lab Sample ID: 380-1130-1**

No Detections.

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**Client Sample ID: TRAVEL BLANK**

**Lab Sample ID: 380-1130-2**

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: 380-1130-1

**Client Sample ID: MOANALUA WELLS (331-223-TP202)**

**Lab Sample ID: 380-1130-1**

**Date Collected: 05/02/22 10:30**

**Matrix: Water**

**Date Received: 05/04/22 11:11**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
2,4'-DDE	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
2,4'-DDT	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
2,4-Dinitrotoluene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
2,6-Dinitrotoluene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
4,4'-DDD	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
4,4'-DDE	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
4,4'-DDT	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Acenaphthene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Acenaphthylene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Acetochlor	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Alachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
alpha-BHC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
alpha-Chlordane	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Anthracene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 16:46	1
Atrazine	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Benz(a)anthracene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Benzo[a]pyrene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 16:46	1
Benzo[b]fluoranthene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 16:46	1
Benzo[g,h,i]perylene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Benzo[k]fluoranthene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 16:46	1
beta-BHC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Bromacil	ND	^3+	0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Butachlor	ND	*+	0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Butylbenzylphthalate	ND	^3+	0.50	ug/L		05/06/22 09:45	05/10/22 16:46	1
Caffeine	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Chlorobenzilate	ND	*+	0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Chloroneb	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Chlorothalonil (Draconil, Bravo)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Chlorpyrifos	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Chrysene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 16:46	1
delta-BHC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Di(2-ethylhexyl)adipate	ND		0.60	ug/L		05/06/22 09:45	05/10/22 16:46	1
Bis(2-ethylhexyl) phthalate	ND		0.60	ug/L		05/06/22 09:45	05/10/22 16:46	1
Diazinon (Qualitative)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Dibenz(a,h)anthracene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Diclorvos (DDVP)	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Dieldrin	ND		0.20	ug/L		05/06/22 09:45	05/10/22 16:46	1
Diethylphthalate	ND		0.50	ug/L		05/06/22 09:45	05/10/22 16:46	1
Dimethoate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Dimethylphthalate	ND		0.50	ug/L		05/06/22 09:45	05/10/22 16:46	1
Di-n-butyl phthalate	ND		0.99	ug/L		05/06/22 09:45	05/10/22 16:46	1
Di-n-octyl phthalate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Endosulfan I (Alpha)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Endosulfan II (Beta)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Endosulfan sulfate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Endrin	ND	^3+	0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Endrin aldehyde	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
EPTC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1

# Client Sample Results

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

Job ID: 380-1130-1

**Client Sample ID: MOANALUA WELLS (331-223-TP202)**

**Lab Sample ID: 380-1130-1**

**Date Collected: 05/02/22 10:30**

**Matrix: Water**

**Date Received: 05/04/22 11:11**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Fluorene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
gamma-Chlordane	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Heptachlor	ND		0.040	ug/L		05/06/22 09:45	05/10/22 16:46	1
Heptachlor epoxide (isomer B)	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Hexachlorobenzene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Hexachlorocyclopentadiene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Indeno[1,2,3-cd]pyrene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Isophorone	ND		0.50	ug/L		05/06/22 09:45	05/10/22 16:46	1
Lindane	ND		0.040	ug/L		05/06/22 09:45	05/10/22 16:46	1
Malathion	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Methoxychlor	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Metolachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Metribuzin	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Molinate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Naphthalene	ND		0.30	ug/L		05/06/22 09:45	05/10/22 16:46	1
Parathion	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Pendimethalin (Penoxaline)	ND	^3+	0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		05/06/22 09:45	05/10/22 16:46	1
Phenanthrene	ND		0.040	ug/L		05/06/22 09:45	05/10/22 16:46	1
Propachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Pyrene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Simazine	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Terbacil	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Terbuthylazine	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1
Thiobencarb	ND		0.20	ug/L		05/06/22 09:45	05/10/22 16:46	1
trans-Nonachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 16:46	1
Trifluralin	ND		0.099	ug/L		05/06/22 09:45	05/10/22 16:46	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L				05/06/22 09:45	05/10/22 16:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Nitro-m-xylene	103		70 - 130	05/06/22 09:45	05/10/22 16:46	1
Triphenylphosphate	103		70 - 130	05/06/22 09:45	05/10/22 16:46	1
Perylene-d12	93		70 - 130	05/06/22 09:45	05/10/22 16:46	1

**Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			05/10/22 17:20	1
MOTOR OIL	ND	U	0.054		mg/L			05/10/22 17:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOBENZENE	96		60 - 130		05/10/22 17:20	1
HEXACOSANE	97		60 - 130		05/10/22 17:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.020		mg/L			05/05/22 22:42	1

Eurofins Eaton Monrovia



# Client Sample Results

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

Job ID: 380-1130-1

**Client Sample ID: MOANALUA WELLS (331-223-TP202)**

**Lab Sample ID: 380-1130-1**

Date Collected: 05/02/22 10:30

Matrix: Water

Date Received: 05/04/22 11:11

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	77		60 - 140		05/05/22 22:42	1

**Client Sample ID: TRAVEL BLANK**

**Lab Sample ID: 380-1130-2**

Date Collected: 05/02/22 10:30

Matrix: Water

Date Received: 05/04/22 11:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.020		mg/L			05/05/22 23:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
BROMOFLUOROBENZENE	84		60 - 140		05/05/22 23:16	1

# Action Limit Summary

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

Job ID: 380-1130-1

**Client Sample ID: MOANALUA WELLS (331-223-TP202)**

**Lab Sample ID: 380-1130-1**

## 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	0.050	525.2	Total/NA
Atrazine	ND		ug/L	3	0.050	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	0.60	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	ND		ug/L	6	0.60	525.2	Total/NA
Endrin	ND	^3+	ug/L	2	0.099	525.2	Total/NA
Heptachlor	ND		ug/L	0.4	0.040	525.2	Total/NA
Heptachlor epoxide (isomer B)	ND		ug/L	0.2	0.050	525.2	Total/NA
Hexachlorobenzene	ND		ug/L	1	0.050	525.2	Total/NA
Hexachlorocyclopentadiene	ND		ug/L	50	0.050	525.2	Total/NA
Lindane	ND		ug/L	0.2	0.040	525.2	Total/NA
Methoxychlor	ND		ug/L	40	0.099	525.2	Total/NA
Simazine	ND		ug/L	4	0.050	525.2	Total/NA

# Surrogate Summary

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

Job ID: 380-1130-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		2NMX (70-130)	TPP (70-130)	PRY (70-130)
380-760-E-1-A DU	Duplicate	103	106	93
380-875-B-1-A MS	Matrix Spike	102	107	97
380-1130-1	MOANALUA WELLS (331-223-TP202)	103	103	93
LCS 380-3642/3-A	Lab Control Sample	104	103	96
LCSD 380-3642/4-A	Lab Control Sample Dup	103	106	97
MB 380-3642/1-A	Method Blank	102	106	96
MRL 380-3642/2-A	Lab Control Sample	103	107	94

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

## Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BB (60-130)	XACOSAI (60-130)
380-1130-1	MOANALUA WELLS (331-223-T	96	97

**Surrogate Legend**  
 BB = BROMOBENZENE  
 HEXACOSANE = HEXACOSANE

## Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BB	XACOSAI
22DSE013WB	Method Blank		

**Surrogate Legend**  
 BB = BROMOBENZENE  
 HEXACOSANE = HEXACOSANE

## Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BB (60-130)	XACOSAI (60-130)
22DSE013WL	Lab Control Sample	104	102
22E049-05M	380-1130-1 MS	100	100
22E049-05S	380-1130-1 MSD	101	104

**Surrogate Legend**  
 BB = BROMOBENZENE  
 HEXACOSANE = HEXACOSANE

# Surrogate Summary

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

Job ID: 380-1130-1

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
380-1130-1	MOANALUA WELLS (331-223-T	77
380-1130-2	TRAVEL BLANK	84

#### Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

Matrix: WATER

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
22E049-01M	Matrix Spike	113
22E049-01S	Matrix Spike Duplicate	117

#### Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

Matrix: WATER

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB
22VGH7E02B	Method Blank	

#### Surrogate Legend

BFB = BROMOFLUOROBENZENE

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

Matrix: WATER

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)
22VGH7E02C	LCD	113
22VGH7E02L	Lab Control Sample	109

#### Surrogate Legend

BFB = BROMOFLUOROBENZENE

# QC Sample Results

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

Job ID: 380-1130-1

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

**Lab Sample ID: MB 380-3642/1-A**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
2,4'-DDE	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
2,4'-DDT	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
2,4-Dinitrotoluene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
2,6-Dinitrotoluene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
4,4'-DDD	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
4,4'-DDE	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
4,4'-DDT	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Acenaphthene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Acenaphthylene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Acetochlor	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Alachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
alpha-BHC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
alpha-Chlordane	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Anthracene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 11:25	1
Atrazine	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Benz(a)anthracene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Benzo[a]pyrene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 11:25	1
Benzo[b]fluoranthene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 11:25	1
Benzo[g,h,i]perylene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Benzo[k]fluoranthene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 11:25	1
beta-BHC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Bromacil	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Butachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Butylbenzylphthalate	ND		0.50	ug/L		05/06/22 09:45	05/10/22 11:25	1
Caffeine	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Chlorobenzilate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Chloroneb	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Chlorothalonil (Draconil, Bravo)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Chlorpyrifos	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Chrysene	ND		0.020	ug/L		05/06/22 09:45	05/10/22 11:25	1
delta-BHC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Di(2-ethylhexyl)adipate	ND		0.59	ug/L		05/06/22 09:45	05/10/22 11:25	1
Bis(2-ethylhexyl) phthalate	ND		0.59	ug/L		05/06/22 09:45	05/10/22 11:25	1
Diazinon (Qualitative)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Dibenz(a,h)anthracene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Diclorvos (DDVP)	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Dieldrin	ND		0.20	ug/L		05/06/22 09:45	05/10/22 11:25	1
Diethylphthalate	ND		0.50	ug/L		05/06/22 09:45	05/10/22 11:25	1
Dimethoate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Dimethylphthalate	ND		0.50	ug/L		05/06/22 09:45	05/10/22 11:25	1
Di-n-butyl phthalate	ND		0.99	ug/L		05/06/22 09:45	05/10/22 11:25	1
Di-n-octyl phthalate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Endosulfan I (Alpha)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Endosulfan II (Beta)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Endosulfan sulfate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Endrin	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Endrin aldehyde	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1

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# QC Sample Results

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

Job ID: 380-1130-1

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

**Lab Sample ID: MB 380-3642/1-A**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
EPTC	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Fluoranthene	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Fluorene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
gamma-Chlordane	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Heptachlor	ND		0.040	ug/L		05/06/22 09:45	05/10/22 11:25	1
Heptachlor epoxide (isomer B)	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Hexachlorobenzene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Hexachlorocyclopentadiene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Indeno[1,2,3-cd]pyrene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Isophorone	ND		0.50	ug/L		05/06/22 09:45	05/10/22 11:25	1
Lindane	ND		0.040	ug/L		05/06/22 09:45	05/10/22 11:25	1
Malathion	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Methoxychlor	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Metolachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Metribuzin	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Molinate	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Naphthalene	ND		0.30	ug/L		05/06/22 09:45	05/10/22 11:25	1
Parathion	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Pendimethalin (Penoxaline)	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Total Permethrin (mixed isomers)	ND		0.20	ug/L		05/06/22 09:45	05/10/22 11:25	1
Phenanthrene	ND		0.040	ug/L		05/06/22 09:45	05/10/22 11:25	1
Propachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Pyrene	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Simazine	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Terbacil	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Terbutylazine	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1
Thiobencarb	ND		0.20	ug/L		05/06/22 09:45	05/10/22 11:25	1
trans-Nonachlor	ND		0.050	ug/L		05/06/22 09:45	05/10/22 11:25	1
Trifluralin	ND		0.099	ug/L		05/06/22 09:45	05/10/22 11:25	1

<i>Tentatively Identified Compound</i>	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
<i>Decane</i>	2.00	T J N	ug/L		2.34	124-18-5	05/06/22 09:45	05/10/22 11:25	1
<i>Unknown</i>	0.990	T J	ug/L		3.15		05/06/22 09:45	05/10/22 11:25	1
<i>Unknown</i>	2.04	T J	ug/L		3.63		05/06/22 09:45	05/10/22 11:25	1
<i>Silanamine, N-[2,6-dimethyl-4- [(trimethylsilyl)oxy]phenyl]-1</i>	0.559	T J N	ug/L		3.73	72088-09-6	05/06/22 09:45	05/10/22 11:25	1
<i>Octadecane</i>	0.883	T J N	ug/L		5.09	593-45-3	05/06/22 09:45	05/10/22 11:25	1
<i>n-Hexadecanoic acid</i>	1.86	T J N	ug/L		5.70	57-10-3	05/06/22 09:45	05/10/22 11:25	1
<i>Octadecanoic acid</i>	1.75	T J N	ug/L		6.37	57-11-4	05/06/22 09:45	05/10/22 11:25	1
<i>9-Octadecenamide, (Z)-</i>	0.592	T J N	ug/L		7.29	301-02-0	05/06/22 09:45	05/10/22 11:25	1

<i>Surrogate</i>	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>2-Nitro-m-xylene</i>	102		70 - 130	05/06/22 09:45	05/10/22 11:25	1
<i>Triphenylphosphate</i>	106		70 - 130	05/06/22 09:45	05/10/22 11:25	1
<i>Perylene-d12</i>	96		70 - 130	05/06/22 09:45	05/10/22 11:25	1

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# QC Sample Results

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

Job ID: 380-1130-1

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

**Lab Sample ID: LCS 380-3642/3-A**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	1.99	2.01		ug/L		101	70 - 130
2,4'-DDE	1.99	2.05		ug/L		103	70 - 130
2,4'-DDT	1.99	2.10		ug/L		105	70 - 130
2,4-Dinitrotoluene	1.99	2.28		ug/L		114	70 - 130
2,6-Dinitrotoluene	1.99	2.26		ug/L		114	70 - 130
4,4'-DDD	1.99	2.18		ug/L		110	70 - 130
4,4'-DDE	1.99	1.96		ug/L		99	70 - 130
4,4'-DDT	1.99	2.10		ug/L		106	70 - 130
Acenaphthene	1.99	1.98		ug/L		100	70 - 130
Acenaphthylene	1.99	2.06		ug/L		103	70 - 130
Acetochlor	1.99	2.27		ug/L		114	70 - 130
Alachlor	1.99	2.23		ug/L		112	70 - 130
alpha-BHC	1.99	2.14		ug/L		108	70 - 130
alpha-Chlordane	1.99	1.93		ug/L		97	70 - 130
Anthracene	1.99	2.01		ug/L		101	70 - 130
Atrazine	1.99	2.09		ug/L		105	70 - 130
Benz(a)anthracene	1.99	2.12		ug/L		107	70 - 130
Benzo[a]pyrene	1.99	2.12		ug/L		107	70 - 130
Benzo[b]fluoranthene	1.99	2.18		ug/L		110	70 - 130
Benzo[g,h,i]perylene	1.99	2.16		ug/L		109	70 - 130
Benzo[k]fluoranthene	1.99	2.01		ug/L		101	70 - 130
beta-BHC	1.99	2.05		ug/L		103	70 - 130
Bromacil	1.99	2.40		ug/L		121	70 - 130
Butachlor	1.99	2.47		ug/L		124	70 - 130
Butylbenzylphthalate	1.99	2.26		ug/L		114	70 - 130
Caffeine	1.99	2.00		ug/L		101	70 - 130
Chlorobenzilate	1.99	2.68	*+	ug/L		135	70 - 130
Chloroneb	1.99	2.10		ug/L		106	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	2.02		ug/L		102	70 - 130
Chlorpyrifos	1.99	2.12		ug/L		107	70 - 130
Chrysene	1.99	2.05		ug/L		103	70 - 130
delta-BHC	1.99	2.05		ug/L		103	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.28		ug/L		115	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	2.02		ug/L		101	70 - 130
Diazinon (Qualitative)	1.99	2.12		ug/L		107	70 - 130
Dibenz(a,h)anthracene	1.99	2.16		ug/L		109	70 - 130
Diclorvos (DDVP)	1.99	2.38		ug/L		120	70 - 130
Dieldrin	1.99	2.09		ug/L		105	70 - 130
Diethylphthalate	1.99	2.18		ug/L		110	70 - 130
Dimethoate	1.99	2.17		ug/L		109	70 - 130
Dimethylphthalate	1.99	2.19		ug/L		110	70 - 130
Di-n-butyl phthalate	3.98	4.11		ug/L		103	70 - 130
Di-n-octyl phthalate	1.99	2.06		ug/L		104	70 - 130
Endosulfan I (Alpha)	1.99	2.09		ug/L		105	70 - 130
Endosulfan II (Beta)	1.99	2.11		ug/L		106	70 - 130
Endosulfan sulfate	1.99	2.15		ug/L		108	70 - 130
Endrin	1.99	2.42		ug/L		122	70 - 130
Endrin aldehyde	1.99	2.02		ug/L		101	70 - 130

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# QC Sample Results

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

Job ID: 380-1130-1

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

**Lab Sample ID: LCS 380-3642/3-A**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
EPTC	1.99	2.22		ug/L		111	70 - 130
Fluoranthene	1.99	2.11		ug/L		106	70 - 130
Fluorene	1.99	2.13		ug/L		107	70 - 130
gamma-Chlordane	1.99	2.01		ug/L		101	70 - 130
Heptachlor	1.99	2.17		ug/L		109	70 - 130
Heptachlor epoxide (isomer B)	1.99	2.03		ug/L		102	70 - 130
Hexachlorobenzene	1.99	1.92		ug/L		97	70 - 130
Hexachlorocyclopentadiene	1.99	2.32		ug/L		117	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	2.21		ug/L		111	70 - 130
Isophorone	1.99	2.24		ug/L		113	70 - 130
Lindane	1.99	2.10		ug/L		106	70 - 130
Malathion	1.99	2.29		ug/L		115	70 - 130
Methoxychlor	1.99	2.27		ug/L		114	70 - 130
Metolachlor	1.99	2.29		ug/L		115	70 - 130
Metribuzin	1.99	2.36		ug/L		119	70 - 130
Molinate	1.99	2.25		ug/L		113	70 - 130
Naphthalene	1.99	2.06		ug/L		103	70 - 130
Parathion	1.99	2.35		ug/L		118	70 - 130
Pendimethalin (Penoxaline)	1.99	2.11		ug/L		106	70 - 130
Phenanthrene	1.99	1.99		ug/L		100	70 - 130
Propachlor	1.99	2.42		ug/L		121	70 - 130
Pyrene	1.99	2.15		ug/L		108	70 - 130
Simazine	1.99	2.36		ug/L		119	70 - 130
Terbacil	1.99	2.36		ug/L		118	70 - 130
Terbutylazine	1.99	2.23		ug/L		112	70 - 130
Thiobencarb	1.99	2.29		ug/L		115	70 - 130
trans-Nonachlor	1.99	1.98		ug/L		100	70 - 130
Trifluralin	1.99	2.06		ug/L		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Nitro-m-xylene	104		70 - 130
Triphenylphosphate	103		70 - 130
Perylene-d12	96		70 - 130

**Lab Sample ID: LCSD 380-3642/4-A**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4'-DDD	1.98	2.08		ug/L		105	70 - 130	3	20
2,4'-DDE	1.98	2.06		ug/L		104	70 - 130	0	20
2,4'-DDT	1.98	2.16		ug/L		109	70 - 130	3	20
2,4-Dinitrotoluene	1.98	2.42		ug/L		122	70 - 130	6	20
2,6-Dinitrotoluene	1.98	2.39		ug/L		120	70 - 130	6	20
4,4'-DDD	1.98	2.30		ug/L		116	70 - 130	5	20
4,4'-DDE	1.98	2.07		ug/L		104	70 - 130	5	20
4,4'-DDT	1.98	2.20		ug/L		111	70 - 130	4	20
Acenaphthene	1.98	2.03		ug/L		103	70 - 130	2	20

Eurofins Eaton Monrovia



# QC Sample Results

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

Job ID: 380-1130-1

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

**Lab Sample ID: LCSD 380-3642/4-A**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthylene	1.98	2.09		ug/L		106	70 - 130	2	20
Acetochlor	1.98	2.36		ug/L		119	70 - 130	4	20
Alachlor	1.98	2.33		ug/L		118	70 - 130	4	20
alpha-BHC	1.98	2.20		ug/L		111	70 - 130	3	20
alpha-Chlordane	1.98	1.97		ug/L		99	70 - 130	2	20
Anthracene	1.98	2.12		ug/L		107	70 - 130	5	20
Atrazine	1.98	2.20		ug/L		111	70 - 130	5	20
Benz(a)anthracene	1.98	2.29		ug/L		115	70 - 130	8	20
Benzo[a]pyrene	1.98	2.24		ug/L		113	70 - 130	5	20
Benzo[b]fluoranthene	1.98	2.22		ug/L		112	70 - 130	2	20
Benzo[g,h,i]perylene	1.98	2.06		ug/L		104	70 - 130	5	20
Benzo[k]fluoranthene	1.98	2.17		ug/L		110	70 - 130	8	20
beta-BHC	1.98	2.14		ug/L		108	70 - 130	5	20
Bromacil	1.98	2.50		ug/L		126	70 - 130	4	20
Butachlor	1.98	2.59	*+	ug/L		131	70 - 130	5	20
Butylbenzylphthalate	1.98	2.39		ug/L		121	70 - 130	6	20
Caffeine	1.98	2.21		ug/L		112	70 - 130	10	20
Chlorobenzilate	1.98	2.83	*+	ug/L		143	70 - 130	5	20
Chloroneb	1.98	2.14		ug/L		108	70 - 130	2	20
Chlorothalonil (Draconil, Bravo)	1.98	2.14		ug/L		108	70 - 130	5	20
Chlorpyrifos	1.98	2.22		ug/L		112	70 - 130	5	20
Chrysene	1.98	2.10		ug/L		106	70 - 130	3	20
delta-BHC	1.98	2.12		ug/L		107	70 - 130	3	20
Di(2-ethylhexyl)adipate	1.98	2.35		ug/L		119	70 - 130	3	20
Bis(2-ethylhexyl) phthalate	1.98	2.10		ug/L		106	70 - 130	4	20
Diazinon (Qualitative)	1.98	2.18		ug/L		110	70 - 130	2	20
Dibenz(a,h)anthracene	1.98	2.18		ug/L		110	70 - 130	1	20
Diclorvos (DDVP)	1.98	2.49		ug/L		126	70 - 130	5	20
Dieldrin	1.98	2.13		ug/L		107	70 - 130	2	20
Diethylphthalate	1.98	2.27		ug/L		115	70 - 130	4	20
Dimethoate	1.98	2.22		ug/L		112	70 - 130	2	20
Dimethylphthalate	1.98	2.26		ug/L		114	70 - 130	3	20
Di-n-butyl phthalate	3.96	4.20		ug/L		106	70 - 130	2	20
Di-n-octyl phthalate	1.98	2.08		ug/L		105	70 - 130	1	20
Endosulfan I (Alpha)	1.98	2.17		ug/L		109	70 - 130	3	20
Endosulfan II (Beta)	1.98	2.24		ug/L		113	70 - 130	6	20
Endosulfan sulfate	1.98	2.28		ug/L		115	70 - 130	6	20
Endrin	1.98	2.58		ug/L		130	70 - 130	7	20
Endrin aldehyde	1.98	2.12		ug/L		107	70 - 130	5	20
EPTC	1.98	2.31		ug/L		116	70 - 130	4	20
Fluoranthene	1.98	2.22		ug/L		112	70 - 130	5	20
Fluorene	1.98	2.22		ug/L		112	70 - 130	4	20
gamma-Chlordane	1.98	2.03		ug/L		103	70 - 130	1	20
Heptachlor	1.98	2.26		ug/L		114	70 - 130	4	20
Heptachlor epoxide (isomer B)	1.98	2.14		ug/L		108	70 - 130	5	20
Hexachlorobenzene	1.98	1.97		ug/L		99	70 - 130	2	20
Hexachlorocyclopentadiene	1.98	2.44		ug/L		123	70 - 130	5	20
Indeno[1,2,3-cd]pyrene	1.98	2.17		ug/L		110	70 - 130	2	20
Isophorone	1.98	2.32		ug/L		117	70 - 130	4	20

Eurofins Eaton Monrovia

# QC Sample Results

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

Job ID: 380-1130-1

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

**Lab Sample ID: LCSD 380-3642/4-A**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lindane	1.98	2.19		ug/L		111	70 - 130	4	20
Malathion	1.98	2.38		ug/L		120	70 - 130	4	20
Methoxychlor	1.98	2.46		ug/L		124	70 - 130	8	20
Metolachlor	1.98	2.41		ug/L		122	70 - 130	5	20
Metribuzin	1.98	2.32		ug/L		117	70 - 130	2	20
Molinate	1.98	2.31		ug/L		117	70 - 130	3	20
Naphthalene	1.98	2.07		ug/L		104	70 - 130	0	20
Parathion	1.98	2.45		ug/L		124	70 - 130	4	20
Pendimethalin (Penoxaline)	1.98	2.29		ug/L		115	70 - 130	8	20
Phenanthrene	1.98	2.04		ug/L		103	70 - 130	2	20
Propachlor	1.98	2.50		ug/L		126	70 - 130	3	20
Pyrene	1.98	2.23		ug/L		113	70 - 130	4	20
Simazine	1.98	2.52		ug/L		127	70 - 130	7	20
Terbacil	1.98	2.54		ug/L		128	70 - 130	7	20
Terbutylazine	1.98	2.43		ug/L		123	70 - 130	8	20
Thiobencarb	1.98	2.37		ug/L		120	70 - 130	3	20
trans-Nonachlor	1.98	2.06		ug/L		104	70 - 130	4	20
Trifluralin	1.98	2.14		ug/L		108	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Nitro-m-xylene	103		70 - 130
Triphenylphosphate	106		70 - 130
Perylene-d12	97		70 - 130

**Lab Sample ID: MRL 380-3642/2-A**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	0.0996	0.129		ug/L		130	50 - 150
2,4'-DDE	0.0996	0.102		ug/L		103	50 - 150
2,4'-DDT	0.0996	0.127		ug/L		128	50 - 150
2,4-Dinitrotoluene	0.0996	0.132		ug/L		133	50 - 150
2,6-Dinitrotoluene	0.0996	0.104		ug/L		104	50 - 150
4,4'-DDD	0.0996	0.112		ug/L		113	50 - 150
4,4'-DDE	0.0996	ND		ug/L		96	50 - 150
4,4'-DDT	0.0996	0.124		ug/L		124	50 - 150
Acenaphthene	0.0996	ND		ug/L		100	50 - 150
Acenaphthylene	0.0996	ND		ug/L		91	50 - 150
Acetochlor	0.0498	ND		ug/L		104	50 - 150
Alachlor	0.0498	0.0586		ug/L		118	50 - 150
alpha-BHC	0.0996	0.118		ug/L		118	50 - 150
alpha-Chlordane	0.0498	0.0514		ug/L		103	50 - 150
Anthracene	0.0199	ND		ug/L		97	50 - 150
Atrazine	0.0498	ND		ug/L		96	50 - 150
Benz(a)anthracene	0.0498	0.0528		ug/L		106	50 - 150
Benzo[a]pyrene	0.0199	0.0218		ug/L		110	50 - 150
Benzo[b]fluoranthene	0.0199	0.0216		ug/L		108	50 - 150

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# QC Sample Results

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

Job ID: 380-1130-1

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

**Lab Sample ID: MRL 380-3642/2-A**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[g,h,i]perylene	0.0498	ND		ug/L		82	50 - 150
Benzo[k]fluoranthene	0.0199	0.0216		ug/L		109	50 - 150
beta-BHC	0.0996	0.107		ug/L		108	50 - 150
Bromacil	0.0996	0.160	^3+	ug/L		161	50 - 150
Butachlor	0.0498	0.0722		ug/L		145	50 - 150
Butylbenzylphthalate	0.149	ND	^3+	ug/L		151	50 - 150
Caffeine	0.0498	ND		ug/L		99	50 - 150
Chlorobenzilate	0.0996	0.137		ug/L		138	50 - 150
Chloroneb	0.0996	0.106		ug/L		106	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0996	0.132		ug/L		133	50 - 150
Chlorpyrifos	0.0498	0.0551		ug/L		111	50 - 150
Chrysene	0.0199	0.0212		ug/L		107	50 - 150
delta-BHC	0.0996	0.134		ug/L		135	50 - 150
Di(2-ethylhexyl)adipate	0.299	ND		ug/L		126	50 - 150
Bis(2-ethylhexyl) phthalate	0.597	0.671		ug/L		112	50 - 150
Diazinon (Qualitative)	0.0996	0.110		ug/L		111	50 - 150
Dibenz(a,h)anthracene	0.0498	ND		ug/L		80	50 - 150
Diclorvos (DDVP)	0.0498	0.0589		ug/L		118	50 - 150
Dieldrin	0.0996	ND		ug/L		112	50 - 150
Diethylphthalate	0.149	ND		ug/L		130	50 - 150
Dimethoate	0.0996	0.148		ug/L		149	50 - 150
Dimethylphthalate	0.299	ND		ug/L		104	50 - 150
Di-n-butyl phthalate	0.299	ND		ug/L		137	50 - 150
Di-n-octyl phthalate	0.0996	0.123		ug/L		124	50 - 150
Endosulfan I (Alpha)	0.0996	0.115		ug/L		116	50 - 150
Endosulfan II (Beta)	0.0996	0.135		ug/L		136	50 - 150
Endosulfan sulfate	0.0996	0.100		ug/L		100	50 - 150
Endrin	0.0996	0.155	^3+	ug/L		156	50 - 150
Endrin aldehyde	0.0996	ND		ug/L		87	50 - 150
EPTC	0.0996	0.106		ug/L		106	50 - 150
Fluoranthene	0.0498	ND		ug/L		107	50 - 150
Fluorene	0.0498	0.0519		ug/L		104	50 - 150
gamma-Chlordane	0.0498	ND		ug/L		96	50 - 150
Heptachlor	0.0398	0.0581		ug/L		146	50 - 150
Heptachlor epoxide (isomer B)	0.0498	ND		ug/L		98	50 - 150
Hexachlorobenzene	0.0498	0.0574		ug/L		115	50 - 150
Hexachlorocyclopentadiene	0.0498	0.0545		ug/L		109	50 - 150
Indeno[1,2,3-cd]pyrene	0.0498	ND		ug/L		81	50 - 150
Isophorone	0.0996	ND		ug/L		104	50 - 150
Lindane	0.0498	0.0459		ug/L		92	50 - 150
Malathion	0.0996	0.110		ug/L		111	50 - 150
Methoxychlor	0.0996	0.108		ug/L		108	50 - 150
Metolachlor	0.0498	0.0568		ug/L		114	50 - 150
Metribuzin	0.0498	0.0568		ug/L		114	50 - 150
Molinate	0.0996	0.117		ug/L		117	50 - 150
Naphthalene	0.0996	ND		ug/L		105	50 - 150
Parathion	0.0996	0.138		ug/L		139	50 - 150
Pendimethalin (Penoxaline)	0.0996	0.153	^3+	ug/L		154	50 - 150
Phenanthrene	0.0199	ND		ug/L		112	50 - 150

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# QC Sample Results

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

Job ID: 380-1130-1

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

**Lab Sample ID: MRL 380-3642/2-A**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Propachlor	0.0498	0.0614		ug/L		123	50 - 150
Pyrene	0.0498	0.0536		ug/L		108	50 - 150
Simazine	0.0498	0.0606		ug/L		122	50 - 150
Terbacil	0.0996	0.118		ug/L		118	50 - 150
Terbutylazine	0.0996	0.107		ug/L		108	50 - 150
Thiobencarb	0.0996	ND		ug/L		126	50 - 150
trans-Nonachlor	0.0498	ND		ug/L		94	50 - 150
Trifluralin	0.0996	0.128		ug/L		129	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
2-Nitro-m-xylene	103		70 - 130
Triphenylphosphate	107		70 - 130
Perylene-d12	94		70 - 130

**Lab Sample ID: 380-875-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD	ND		1.96	2.01		ug/L		103	70 - 130
2,4'-DDE	ND		1.96	1.99		ug/L		102	70 - 130
2,4'-DDT	ND		1.96	2.05		ug/L		105	70 - 130
2,4-Dinitrotoluene	ND		1.96	2.48		ug/L		127	70 - 130
2,6-Dinitrotoluene	ND		1.96	2.40		ug/L		123	70 - 130
4,4'-DDD	ND		1.96	2.21		ug/L		113	70 - 130
4,4'-DDE	ND		1.96	1.91		ug/L		98	70 - 130
4,4'-DDT	ND		1.96	2.11		ug/L		108	70 - 130
Acenaphthene	ND		1.96	1.95		ug/L		100	70 - 130
Acenaphthylene	ND		1.96	2.13		ug/L		109	70 - 130
Acetochlor	ND		1.96	2.38		ug/L		122	70 - 130
Alachlor	ND		1.96	2.36		ug/L		120	70 - 130
alpha-BHC	ND		1.96	2.16		ug/L		110	70 - 130
alpha-Chlordane	ND		1.96	1.89		ug/L		96	70 - 130
Anthracene	ND		1.96	2.00		ug/L		102	70 - 130
Atrazine	ND		1.96	2.00		ug/L		102	70 - 130
Benz(a)anthracene	ND		1.96	2.25		ug/L		115	70 - 130
Benzo[a]pyrene	ND		1.96	2.20		ug/L		112	70 - 130
Benzo[b]fluoranthene	ND		1.96	2.16		ug/L		110	70 - 130
Benzo[g,h,i]perylene	ND		1.96	2.08		ug/L		106	70 - 130
Benzo[k]fluoranthene	ND		1.96	2.14		ug/L		109	70 - 130
beta-BHC	ND		1.96	2.09		ug/L		107	70 - 130
Bromacil	ND	F1	1.96	2.64	F1	ug/L		135	70 - 130
Butachlor	ND	*+	1.96	2.54		ug/L		130	70 - 130
Butylbenzylphthalate	ND		1.96	2.37		ug/L		121	70 - 130
Caffeine	ND		1.96	2.18		ug/L		111	70 - 130
Chlorobenzilate	ND	*+ F1	1.96	2.84	F1	ug/L		145	70 - 130
Chloroneb	ND		1.96	2.09		ug/L		107	70 - 130
Chlorothalonil (Draconil, Bravo)	ND		1.96	2.05		ug/L		105	70 - 130

Eurofins Eaton Monrovia

# QC Sample Results

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

Job ID: 380-1130-1

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

**Lab Sample ID: 380-875-B-1-A MS**

**Matrix: Water**

**Analysis Batch: 3927**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 3642**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Chlorpyrifos	ND		1.96	2.17		ug/L		111	70 - 130
Chrysene	ND		1.96	2.06		ug/L		105	70 - 130
delta-BHC	ND		1.96	2.06		ug/L		105	70 - 130
Di(2-ethylhexyl)adipate	ND		1.96	2.03		ug/L		104	70 - 130
Bis(2-ethylhexyl) phthalate	ND		1.96	1.79		ug/L		92	70 - 130
Diazinon (Qualitative)	ND		1.96	2.17		ug/L		111	70 - 130
Dibenz(a,h)anthracene	ND		1.96	2.13		ug/L		109	70 - 130
Diclorvos (DDVP)	ND		1.96	2.42		ug/L		124	70 - 130
Dieldrin	ND		1.96	2.07		ug/L		106	70 - 130
Diethylphthalate	ND		1.96	2.23		ug/L		114	70 - 130
Dimethoate	ND		1.96	2.43		ug/L		124	70 - 130
Dimethylphthalate	ND		1.96	2.22		ug/L		113	70 - 130
Di-n-butyl phthalate	ND		3.91	4.64		ug/L		109	70 - 130
Di-n-octyl phthalate	ND		1.96	1.64		ug/L		84	70 - 130
Endosulfan I (Alpha)	ND		1.96	2.17		ug/L		111	70 - 130
Endosulfan II (Beta)	ND		1.96	2.31		ug/L		118	70 - 130
Endosulfan sulfate	ND		1.96	2.24		ug/L		114	70 - 130
Endrin	ND		1.96	2.34		ug/L		120	70 - 130
Endrin aldehyde	ND	F1	1.96	0.708	F1	ug/L		36	70 - 130
EPTC	ND		1.96	2.21		ug/L		113	70 - 130
Fluoranthene	ND		1.96	2.17		ug/L		111	70 - 130
Fluorene	ND		1.96	2.13		ug/L		109	70 - 130
gamma-Chlordane	ND		1.96	1.93		ug/L		98	70 - 130
Heptachlor	ND		1.96	2.25		ug/L		115	70 - 130
Heptachlor epoxide (isomer B)	ND		1.96	2.04		ug/L		104	70 - 130
Hexachlorobenzene	ND		1.96	1.95		ug/L		100	70 - 130
Hexachlorocyclopentadiene	ND		1.96	2.37		ug/L		121	70 - 130
Indeno[1,2,3-cd]pyrene	ND		1.96	2.14		ug/L		109	70 - 130
Isophorone	ND		1.96	2.25		ug/L		115	70 - 130
Lindane	ND		1.96	2.12		ug/L		108	70 - 130
Malathion	ND		1.96	2.41		ug/L		123	70 - 130
Methoxychlor	ND		1.96	2.50		ug/L		128	70 - 130
Metolachlor	ND		1.96	2.52		ug/L		129	70 - 130
Metribuzin	ND		1.96	2.06		ug/L		105	70 - 130
Molinate	ND		1.96	2.33		ug/L		119	70 - 130
Naphthalene	ND		1.96	2.01		ug/L		103	70 - 130
Parathion	ND	F1	1.96	2.71	F1	ug/L		138	70 - 130
Pendimethalin (Penoxaline)	ND		1.96	2.36		ug/L		121	70 - 130
Phenanthrene	ND		1.96	2.01		ug/L		103	70 - 130
Propachlor	ND		1.96	2.47		ug/L		126	70 - 130
Pyrene	ND		1.96	2.24		ug/L		114	70 - 130
Simazine	ND		1.96	2.32		ug/L		119	70 - 130
Terbacil	ND	F1	1.96	2.56	F1	ug/L		131	70 - 130
Terbutylazine	ND		1.96	2.30		ug/L		118	70 - 130
Thiobencarb	ND		1.96	2.33		ug/L		119	70 - 130
trans-Nonachlor	ND		1.96	1.86		ug/L		95	70 - 130
Trifluralin	ND		1.96	2.22		ug/L		114	70 - 130

Eurofins Eaton Monrovia

# QC Sample Results

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

Job ID: 380-1130-1

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

**Lab Sample ID: 380-875-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Surrogate	%Recovery	MS MS Qualifier	Limits
2-Nitro-m-xylene	102		70 - 130
Triphenylphosphate	107		70 - 130
Perylene-d12	97		70 - 130

**Lab Sample ID: 380-760-E-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
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
Bis(2-ethylhexyl) phthalate	ND		ND		ug/L		NC	20
Diazinon (Qualitative)	ND		ND		ug/L		NC	20
Dibenz(a,h)anthracene	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

Eurofins Eaton Monrovia

# QC Sample Results

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

Job ID: 380-1130-1

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

**Lab Sample ID: 380-760-E-1-A DU**  
**Matrix: Water**  
**Analysis Batch: 3927**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 3642**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Dimethoate	ND		ND		ug/L		NC	20
Dimethylphthalate	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

Surrogate	%Recovery	DU Qualifier	Limits
2-Nitro-m-xylene	103		70 - 130
Triphenylphosphate	106		70 - 130
Perylene-d12	93		70 - 130



# QC Sample Results

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

Job ID: 380-1130-1

## Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

**Lab Sample ID: 22DSE013WB**  
**Matrix: WATER**  
**Analysis Batch: 22DSE013W**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
DIESEL	ND	U	0.025		mg/L			05/10/22 15:29	1
MOTOR OIL	ND	U	0.050		mg/L			05/10/22 15:29	1
Surrogate		MB MB	Limits			Prepared	Analyzed	Dil Fac	
		%Recovery Qualifier							
BROMOBENZENE							05/10/22 15:29	1	
HEXACOSANE							05/10/22 15:29	1	

**Lab Sample ID: 22DSE013WL**  
**Matrix: WATER**  
**Analysis Batch: 22DSE013W**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Surrogate		LCS LCS	Limits			%Rec	
		%Recovery Qualifier					
BROMOBENZENE		104	60 - 130				
HEXACOSANE		102	60 - 130				

**Lab Sample ID: 22E049-05M**  
**Matrix: WATER**  
**Analysis Batch: 22DSE013W**

**Client Sample ID: 380-1130-1 MS**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Surrogate		MS MS	Limits			%Rec			
		%Recovery Qualifier							
BROMOBENZENE		100	60 - 130						
HEXACOSANE		100	60 - 130						

**Lab Sample ID: 22E049-05S**  
**Matrix: WATER**  
**Analysis Batch: 22DSE013W**

**Client Sample ID: 380-1130-1 MSD**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Surrogate		MSD MSD	Limits			%Rec					
		%Recovery Qualifier									
BROMOBENZENE		101	60 - 130								
HEXACOSANE		104	60 - 130								

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

**Lab Sample ID: 22VGH7E02B**  
**Matrix: WATER**  
**Analysis Batch: 22VGH7E02**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
GASOLINE	ND	U	0.020		mg/L			05/05/22 12:15	1

Eurofins Eaton Monrovia



# QC Sample Results

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

Job ID: 380-1130-1

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

<u>Surrogate</u>	<u>MB MB</u>		<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
	<u>%Recovery</u>	<u>Qualifier</u>				
BROMOFLUOROBENZENE					05/05/22 12:15	1

**Lab Sample ID: 22VGH7E02L**  
**Matrix: WATER**  
**Analysis Batch: 22VGH7E02**

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

<u>Analyte</u>	<u>Spike Added</u>	<u>LCS Result</u>	<u>LCS Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec Limits</u>
GASOLINE	0.500	0.436		mg/L		87	60 - 130

<u>Surrogate</u>	<u>LCS LCS</u>		<u>Limits</u>
	<u>%Recovery</u>	<u>Qualifier</u>	
BROMOFLUOROBENZENE	109		70 - 130

**Lab Sample ID: 22E049-01M**  
**Matrix: WATER**  
**Analysis Batch: 22VGH7E02**

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

<u>Analyte</u>	<u>Sample Result</u>	<u>Sample Qualifier</u>	<u>Spike Added</u>	<u>MS Result</u>	<u>MS Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec Limits</u>
GASOLINE	ND		0.500	0.450		mg/L		90	50 - 130

<u>Surrogate</u>	<u>MS MS</u>		<u>Limits</u>
	<u>%Recovery</u>	<u>Qualifier</u>	
BROMOFLUOROBENZENE	113		60 - 140

**Lab Sample ID: 22E049-01S**  
**Matrix: WATER**  
**Analysis Batch: 22VGH7E02**

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

<u>Analyte</u>	<u>Sample Result</u>	<u>Sample Qualifier</u>	<u>Spike Added</u>	<u>MSD Result</u>	<u>MSD Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec Limits</u>	<u>RPD</u>	<u>RPD Limit</u>
GASOLINE	ND		0.500	0.467		mg/L		93	50 - 130	4	30

<u>Surrogate</u>	<u>MSD MSD</u>		<u>Limits</u>
	<u>%Recovery</u>	<u>Qualifier</u>	
BROMOFLUOROBENZENE	117		60 - 140

# QC Association Summary

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

Job ID: 380-1130-1

## GC/MS Semi VOA

### Prep Batch: 3642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-1130-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Water	525.2	
MB 380-3642/1-A	Method Blank	Total/NA	Water	525.2	
LCS 380-3642/3-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-3642/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-3642/2-A	Lab Control Sample	Total/NA	Water	525.2	
380-875-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-760-E-1-A DU	Duplicate	Total/NA	Water	525.2	

### Analysis Batch: 3927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-1130-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Water	525.2	3642
MB 380-3642/1-A	Method Blank	Total/NA	Water	525.2	3642
LCS 380-3642/3-A	Lab Control Sample	Total/NA	Water	525.2	3642
LCSD 380-3642/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	3642
MRL 380-3642/2-A	Lab Control Sample	Total/NA	Water	525.2	3642
380-875-B-1-A MS	Matrix Spike	Total/NA	Water	525.2	3642
380-760-E-1-A DU	Duplicate	Total/NA	Water	525.2	3642

## Subcontract

### Analysis Batch: 22DSE013W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-1130-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Water	8015 Diesel LL (EAL) and Motor Oil	
22DSE013WB	Method Blank	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22DSE013WL	Lab Control Sample	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22E049-05M	380-1130-1 MS	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	
22E049-05S	380-1130-1 MSD	Total/NA	WATER	8015 Diesel LL (EAL) and Motor Oil	

### Analysis Batch: 22VGH7E02

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-1130-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
380-1130-2	TRAVEL BLANK	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
22VGH7E02B	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22VGH7E02L	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22E049-01M	Matrix Spike	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Eurofins Eaton Monrovia

# QC Association Summary

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

Job ID: 380-1130-1

## Subcontract (Continued)

### Analysis Batch: 22VGH7E02 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
22E049-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

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- 2
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# Lab Chronicle

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

Job ID: 380-1130-1

## Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-1130-1

Date Collected: 05/02/22 10:30

Matrix: Water

Date Received: 05/04/22 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			3642	OTM3	EA MON	05/06/22 09:45
Total/NA	Analysis	525.2		1	3927	UPAC	EA MON	05/10/22 16:46
Total/NA	Analysis	8015 Diesel LL (EAL) and Motor Oil		1	22DSE013W	SDees		05/10/22 17:20
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7E02	SCerva		05/05/22 22:42

## Client Sample ID: TRAVEL BLANK

Lab Sample ID: 380-1130-2

Date Collected: 05/02/22 10:30

Matrix: Water

Date Received: 05/04/22 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7E02	SCerva		05/05/22 23:16

### Laboratory References:

= EMAX Laboratories Inc, 3051 Fujita Street, Torrance, CA 90505

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: 380-1130-1

## 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	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	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
525.2	525.2	Water	gamma-Chlordane
525.2	525.2	Water	Indeno[1,2,3-cd]pyrene

# Accreditation/Certification Summary

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

Job ID: 380-1130-1

## 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
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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	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: 380-1130-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA MON
8015	8015 - Jet Fuel 5 (JP5)	EPA	
8015	8015 - Jet Fuel 8 (JP8)	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:

= EMAX Laboratories Inc, 3051 Fujita Street, Torrance, CA 90505

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: 380-1130-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-1130-1	MOANALUA WELLS (331-223-TP202)	Water	05/02/22 10:30	05/04/22 11:11
380-1130-2	TRAVEL BLANK	Water	05/02/22 10:30	05/04/22 11:11

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3051 Fujita Street  
Torrance, CA 90505  
Tel: (310)-618-8889

Date: 05-13-2022  
EMAX Batch No.: 22E049

Attn: Jackie Contreras

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

Subject: Laboratory Report  
Project: 38001111

Enclosed is the Laboratory report for samples received on 05/05/22.  
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-1106-1	E049-01	05/02/22	WATER	TPH GASOLINE
380-1106-2	E049-02	05/02/22	WATER	TPH
380-1124-1	E049-03	05/02/22	WATER	TPH GASOLINE
380-1124-2	E049-04	05/02/22	WATER	TPH
380-1130-1	E049-05	05/02/22	WATER	TPH GASOLINE
380-1130-2	E049-06	05/02/22	WATER	TPH
380-1127-1	E049-07	05/02/22	WATER	TPH GASOLINE
380-1127-2	E049-08	05/02/22	WATER	TPH GASOLINE
380-1106-1MS	E049-01M	05/02/22	WATER	TPH GASOLINE
380-1106-1MSD	E049-01S	05/02/22	WATER	TPH GASOLINE
380-1130-1MS	E049-05M	05/02/22	WATER	TPH
380-1130-1MSD	E049-05S	05/02/22	WATER	TPH

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 CA002912021-19  
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing  
California ELAP Accredited Certificate Number 2672

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

## Chain of Custody Record



Environment Testing  
Analytical



22E049

<b>Client Information (Sub Contract Lab)</b>		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:							
Client Contact: Shipping/Receiving		Frank, Debbie L	Frank, Debbie L	380-475.1	380-475.1							
Company: EMAX Laboratories Inc		Phone:	E-Mail:	State of Origin:	Page:							
Address: 3051 Fujita Street, Torrance CA, 90505		Debbie.Frank@et.eurofins.com	Debbie.Frank@et.eurofins.com	Hawaii	Page 1 of 1							
City: Torrance		Accreditations Required (See note):		Job #:	380-1106-1							
State, Zip: CA, 90505		State - Hawaii		<b>Preservation Codes:</b>								
Phone:		Due Date Requested:		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)								
Email:		TAT Requested (days):		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:								
Project Name: RED-HILL		PO #:		<b>Analysis Requested</b>								
Site: Honolulu Compliance		WO #:										
Project #: 3800111		Project #:										
SSOW#:		SSOW#:										
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (O=comp, G=grab)</b>	<b>Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)</b>	<b>Field Filtered Sample (Yes or No)</b>	<b>Perform HSM/D (Yes or No)</b>	<b>SUB (8015 Gas (Purgeable) LL (EAL)/ 8015 Gas (Purgeable) LL (EAL))</b>	<b>SUB (8015 Diesel LL (EAL) and Motor Oil)</b>	<b>SUB (8015 Diesel LL (EAL) and Motor Oil)</b>	<b>Total Number of Containers</b>	<b>Special Instructions/Note:</b>
HALAWA SHAFT VIEWING POOL (380-1106-1)	5/2/22	09:30 Hawaiian	Water	X	X	X	X	X	X	X	GRO, DRO (LL EAL 20 ug/L) and ORO	
TRAVEL BLANK (380-1106-2)	5/2/22	09:30 Hawaiian	Water	X	X	X	X	X	X	X	GRO	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte &amp; accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.</p>												
<b>Possible Hazard Identification</b>				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:		<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:						
Deliverable Requested: I, II, III, IV, Other (specify)				Primary Deliverable Rank: 2		Time: _____		Method of Shipment: _____				
Empty Kit Relinquished by:				Date:		Company:		Received by:		Date/Time:		
Relinquished by: <i>[Signature]</i>				5/5/22		EMAX		Alan P.		5/5/22 10:54		
Relinquished by:				Date/Time:		Company:		Received by:		Date/Time:		
REPORT ID: 22E049				Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Page 2 of 38				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				① 5/7/5.4 ② 4.9/5.1 ③ 4.7/4.4 ④ 5.7/5.9		CF-10-2						



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

# Chain of Custody Record



Environment Testing  
 America



22E049

Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:							
Client Contact: Shipping/Receiving		Frank, Debbie L	Frank, Debbie L		380-474-1							
Company: EMAX Laboratories Inc		E-Mail: Debbie.Frank@et.eurofins.com	State of Origin: Hawaii	Page: Page 1 of 1	Job #: 380-1124-1							
Address: 3051 Fujita Street, Torrance, CA, 90505		Phone: State - Hawaii	Accreditations Required (See note):	Preservation Codes:								
City: Torrance		Due Date Requested: 5/11/2022	Analysis Requested									
State, Zip: CA, 90505		TAT Requested (days):	A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Archlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)									
Phone:		PO #:	Other:									
Email:		WO #:										
Project Name: RED-HILL		Project #: 38001111										
Site: Honolulu Compliance		SSOW#:										
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Permit (MS/MSD Yes or No)	SUB (8015 Gas (Purgeable) LL (EAL) / 8015 Gas (Purgeable) LL (EAL))	SUB (8015 Diesel LL (EAL) and Motor Oil)	SUB (8015 Diesel LL (EAL) and Motor Oil)	Total Number of Containers	Special Instructions/Note:
AIEA WELLS P2 (260)-331-004-W L103 (380-1124-1)		5/2/22	10:23 Hawaiian	Water	Water			X	X	X	9	GRO, DRO (LL EAL 20 ug/L) and ORO
TRAVEL BLANK (380-1124-2)		5/2/22	10:23 Hawaiian	Water	Water			X			2	GRO
<p>Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte &amp; 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/test/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.</p>												
Possible Hazard Identification												
Unconfirmed												
Deliverable Requested: I, II, III, IV, Other (specify)												
Primary Deliverable Rank: 2												
Empty Kit Relinquished by: _____ Date: _____												
Relinquished by: _____ Date: 5/5/22 10:54 AM Company: TMAX Company												
Relinquished by: _____ Date: _____ Company: _____												
Relinquished by: _____ Date: _____ Company: _____												
<p>REPORT ID: 22E049</p> <p>Custody Seals Intact: _____ Custody Seal No.: _____</p> <p>Δ Yes Δ No</p>												
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/QC Requirements:</p> <p>Method of Shipment: _____</p>												





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

# Chain of Custody Record



Environment Testing  
 America



22E049

<b>Client Information (Sub Contract Lab)</b> Client Contact: Frank, Debbie L. Shipping/Receiving: Debbie.Frank@et.eurofins.com Company: EMAX Laboratories Inc Address: 3051 Fujita Street, Torrance, CA, 90505 City: Torrance, State: CA, Zip: 90505 Phone: [Blank] Email: [Blank]		Lab PM: Frank, Debbie L. E-Mail: Debbie.Frank@et.eurofins.com State of Origin: Hawaii Carrier Tracking No(s): 380-472-1 Page: Page 1 of 1 Job #: 380-1130-1	
Due Date Requested: 5/11/2022 TAT Requested (days): [Blank]		<b>Analysis Requested</b> Perform MS/MSD (Yes or No) [Blank] SUB (6015 Gas Furgeable) LL (EAL)/ 8015 Gas [Blank] SUB (6015 Gas Furgeable) LL (EAL) [Blank] SUB (6015 Diesel LL (EAL) and Motor Oil)/ 8015 Diesel LL (EAL) and Motor Oil [Blank]	
Project Name: RED-HILL Project #: 38001111 SOW#: [Blank]		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2CO3 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify) Other: [Blank]	
Sample Identification - Client ID (Lab ID) MOANALUA WELLS (331-223-TP202) (380-1130-1) TRAVEL BLANK (380-1130-2)		<b>Special Instructions/Note:</b> GRO, DRO (LL EAL 20 ug/L) and ORO GRO	
Sample Date 5/2/22 5/2/22	Sample Time 10:30 Hawaiian 10:30 Hawaiian	Sample Type (C=comp, G=grab) Water Water	Matrix (W=water, S=solid, O=wasteoil, BT=tissue, A=air) Water Water
Total Number of Containers: 12 GRO		Total Number of Containers: 2 GRO	

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC being the ownership of method, analyte & accreditation compliance upon out 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/test/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_  
 Primary Deliverable Rank: 2  
 Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by: [Signature] Date/Time: 5/5/22 10:54  
 Relinquished by: [Signature] Date/Time: 5/5/22 10:54  
 Relinquished by: [Signature] Date/Time: [Blank]  
 REPORT ID: 22E049  
 Custody Seals Intact: [Blank] Custody Seal No.: [Blank]



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

# Chain of Custody Record



Environment Testing  
 America



22E049

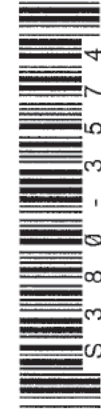
Client Information (Sub Contract Lab)	Lab PM:	Carrier Tracking No(s):	COC No:						
Client Contact: Frank, Debbie L	380-476-1								
Shipping/Receiving: Debbie.Frank@et.eurofins.com	E-Mail: Debbie.Frank@et.eurofins.com	State of Origin: Hawaii	Page: Page 1 of 1						
Company: EMAX Laboratories Inc	Accreditations Required (See note): State - Hawaii		Job #: 380-1127-1						
Address: 3051 Fujita Street, Torrance CA, 90505	Due Date Requested: 5/11/2022	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify) Other:							
City: Torrance	TAT Requested (days):	Analysis Requested							
State, Zip: CA, 90505	PO #:	Total Number of Containers							
Phone:	WO #:	Special Instructions/Note:							
Email:	Project #: 38001111	GRO, DRO (LL EAL 20 ug/L) and ORO							
Project Name: RED-HILL	SSOW#:	GRO							
Site: Honolulu Compliance									
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (O=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MSD (Yes or No)	Sub (8015 Gas (Purgeable) LL (EAL) / 8015 Gas (Purgeable) LL (EAL) and Motor Oil)	Sub (8015 Diesel LL (EAL) and Motor Oil)	
HALAWA WELLS P1 (331-023-WL065) (380-1127-1)	5/2/22	10:57 Hawaiian		Water	X	X	X	X	
TRAVEL BLANK (380-1127-2)	5/2/22	10:57 Hawaiian		Water		X			
Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to Eurofins Eaton Analytical, LLC.									
Possible Hazard Identification	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month ) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Unconfirmed	Special Instructions/QC Requirements:								
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2								
Empty Kit Relinquished by:	Date: _____ Time: _____ Method of Shipment:								
Relinquished by: <i>Am R</i>	Date/Time: 5/5/22 10:54 Company: EMAX Company								
Relinquished by:	Date/Time: _____ Company: _____								
Relinquished by:	Date/Time: _____ Company: _____								
REPORT ID: 22E049	Custody Seal No.:								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Cooler Temperature(s) °C and Other Remarks:								





Environment Testing  
America

# Shipping Order Form



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

Shipping Order ID: 3574

Due On: 5/5/2022 11:59:00PM

Ship Via: FedEx

Sales Representative

Project Manager:

Company Name: EMAX Laboratories Inc

Attention: Shipping/Receiving

Address 1: 3051 Fujita Street

Address 2:

Address 3:

City: Torrance

State: CA

Zip: 90505

Phone #:

Project Ref:

Notes to Bottle/Shipping Department

### Shipping Method: Standard packing

- Ready to Fill
- Preprinted COC
- Number of COC Copies
- Seals on Bottle
- Seals on Coolers
- Priority
- Return Shipment Labels
- Prepaid Return
- Monrovia, CA (Suite 100)
- Short Hold Times
- Temperature Control
- Rush

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

REPORT ID: 22E049

Shipping Order ID: 3574

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Page 1 of 3

Printed on 5/5/2022 8:05:10AM



Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

REPORT ID: 22E049

Shipping Order ID: 3574

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Page 2 of 3

Printed on 5/5/2022 8:05:10AM

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**Bottle Order Information**

Bottle Order:  
Bottle Order #: Request From Client: 5/5/2022  
Date Order Posted: Ready To Process  
Order Status:  
Prepared By:  
**Deliver By Date: 5/5/2022 11:59:00PM**  
Lab Project Number:  
PWSID:

**Order Completion Information**

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

Seal #	Bottle Set	Qty	Bottle Type/Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
--------	------------	-----	-------------------------	--------------	--------	--------	-------------	----------	-------

**Health and Safety Notes**

Preservative \_\_\_\_\_ Comment \_\_\_\_\_



Scan QR code for field sampler instructions

Relinquished By	Company	Date	Time	Received By	Company	Seal #:
Relinquished By	Company	Date	Time	Received By	Company	Seal #: Seal #: Seal #: Seal #:

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

REPORT ID: 22E049

Shipping Order ID: 3574







Type of Delivery <input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others <input type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery	Airbill / Tracking Number	ECN 22E049 Recipient Alan Ramos Date 05/05/22 Time 10:54
---	---------------------------	--

**COC INSPECTION**

<input checked="" type="checkbox"/> Client Name	<input 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 checked="" type="checkbox"/> Tel # / Fax #	<input type="checkbox"/> Courier Signature	<input checked="" type="checkbox"/> Analysis Required	<input type="checkbox"/> Preservative (if any)	<input checked="" type="checkbox"/> TAT
Safety Issues (if any) Note:	<input type="checkbox"/> High concentrations expected	<input type="checkbox"/> From Superfund Site	<input type="checkbox"/> Rad screening required		

**PACKAGING INSPECTION**

Container	<input 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"/> Popcorn
Temperatures (Cool, ≤6 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 5.7/5.9 °C	<input checked="" type="checkbox"/> Cooler 2 4.9/5.1 °C	<input checked="" type="checkbox"/> Cooler 3 4.7/4.9 °C
Thermometer:	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input checked="" type="checkbox"/> Cooler 4 5.7/5.9 °C
	<input type="checkbox"/> Cooler 8 _____ °C	<input type="checkbox"/> Cooler 9 _____ °C	<input type="checkbox"/> Cooler 5 _____ °C
	<input type="checkbox"/> Cooler 10 _____ °C		<input type="checkbox"/> Cooler 6 _____ °C
	A - S/N 210583479	B - S/N _____	C - S/N 210271399
			D - S/N _____

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

**DISCREPANCIES**

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1,3,5	1-9,12-20,27-29,32,33	D10		R8
1,3,5,7	5,7-9,15,16,17,19,20, 26,30,31,34,40,42,44,45	D2	Jet Fuel 5 is also listed on label, not indicated on COC	R1, R8
2,4,6	11,21,22,35,36	D7	Two dates on label - 2/2/22 and 5/2/22	R8
7	37,39-45	D10		

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  
 @COC states Diesel U + Motor Oil only

**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 Informed Client
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 Jaceyne Collins  
 Date 05/05/22  
 SRF \_\_\_\_\_  
 Date 5/6/22  
 PM MB  
 Date 5/5/22

REPORT ID: 22E049

EMAX Laboratories, Inc. 3051 Fujita St., Torrance, CA 90505

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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

38001111

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

SDG#: 22E049



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 38001111

SDG : 22E049

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

A total of eight(8) water samples were received on 05/05/22 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. VGH7E02B - 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. VGH7E02L/VGH7E02C 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 E049-01M/E049-01S. 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 : 38001111  
 SDG NO. : 22E049  
 Instrument ID : H7

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
									WATER
MBLK1W	VGH7E02B	1	NA	05/05/2212:15	05/05/2212:15	AE05005A	AE05004A	22VGH7E02	Method Blank
LCS1W	VGH7E02L	1	NA	05/05/2212:50	05/05/2212:50	AE05006A	AE05004A	22VGH7E02	Lab Control Sample (LCS)
LCD1W	VGH7E02C	1	NA	05/05/2213:24	05/05/2213:24	AE05007A	AE05004A	22VGH7E02	LCS Duplicate
380-1106-1	E049-01	1	NA	05/05/2219:17	05/05/2219:17	AE05017A	AE05016A	22VGH7E02	Field Sample
380-1106-1MS	E049-01M	1	NA	05/05/2219:51	05/05/2219:51	AE05018A	AE05016A	22VGH7E02	Matrix Spike Sample (MS)
380-1106-1MSD	E049-01S	1	NA	05/05/2220:25	05/05/2220:25	AE05019A	AE05016A	22VGH7E02	MS Duplicate (MSD)
380-1106-2	E049-02	1	NA	05/05/2221:00	05/05/2221:00	AE05020A	AE05016A	22VGH7E02	Field Sample
380-1124-1	E049-03	1	NA	05/05/2221:34	05/05/2221:34	AE05021A	AE05016A	22VGH7E02	Field Sample
380-1124-2	E049-04	1	NA	05/05/2222:08	05/05/2222:08	AE05022A	AE05016A	22VGH7E02	Field Sample
380-1130-1	E049-05	1	NA	05/05/2222:42	05/05/2222:42	AE05023A	AE05016A	22VGH7E02	Field Sample
380-1130-2	E049-06	1	NA	05/05/2223:16	05/05/2223:16	AE05024A	AE05016A	22VGH7E02	Field Sample
380-1127-1	E049-07	1	NA	05/05/2223:51	05/05/2223:51	AE05025A	AE05016A	22VGH7E02	Field Sample
380-1127-2	E049-08	1	NA	05/06/2200:25	05/06/2200:25	AE05026A	AE05016A	22VGH7E02	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: 05/02/22 09:30
Project     : 38001111                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/05/22 19:17
Sample ID   : 380-1106-1                 Date Analyzed: 05/05/22 19:17
Lab Samp ID: E049-01                     Dilution Factor: 1
Lab File ID: AE05017A                    Matrix: WATER
Ext Btch ID: 22VGH7E02                   % Moisture: NA
Calib. Ref.: AE05016A                    Instrument ID: H7
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0386	0.0400	96	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: 05/02/22 09:30
Project     : 38001111                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/05/22 21:00
Sample ID   : 380-1106-2                 Date Analyzed: 05/05/22 21:00
Lab Samp ID : E049-02                   Dilution Factor: 1
Lab File ID : AE05020A                   Matrix: WATER
Ext Btch ID: 22VGH7E02                   % Moisture: NA
Calib. Ref.: AE05016A                   Instrument ID: H7
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0339	0.0400	85	60-140

Notes:

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

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



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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/02/22 10:23
Project     : 38001111                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/05/22 21:34
Sample ID   : 380-1124-1                 Date Analyzed: 05/05/22 21:34
Lab Samp ID: E049-03                     Dilution Factor: 1
Lab File ID: AE05021A                    Matrix: WATER
Ext Btch ID: 22VGH7E02                   % Moisture: NA
Calib. Ref.: AE05016A                    Instrument ID: H7
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0317	0.0400	79	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: 05/02/22 10:23
Project    : 38001111                    Date Received: 05/05/22
Batch No.  : 22E049                      Date Extracted: 05/05/22 22:08
Sample ID  : 380-1124-2                  Date Analyzed: 05/05/22 22:08
Lab Samp ID: E049-04                     Dilution Factor: 1
Lab File ID: AE05022A                    Matrix: WATER
Ext Btch ID: 22VGH7E02                   % Moisture: NA
Calib. Ref.: AE05016A                    Instrument ID: H7
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0296	0.0400	74	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: 05/02/22 10:30
Project     : 38001111                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/05/22 22:42
Sample ID   : 380-1130-1                 Date Analyzed: 05/05/22 22:42
Lab Samp ID: E049-05                     Dilution Factor: 1
Lab File ID: AE05023A                    Matrix: WATER
Ext Btch ID: 22VGH7E02                   % Moisture: NA
Calib. Ref.: AE05016A                    Instrument ID: H7
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0310	0.0400	77	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: 05/02/22 10:30
Project     : 38001111                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/05/22 23:16
Sample ID   : 380-1130-2                 Date Analyzed: 05/05/22 23:16
Lab Samp ID: E049-06                     Dilution Factor: 1
Lab File ID: AE05024A                    Matrix: WATER
Ext Btch ID: 22VGH7E02                   % Moisture: NA
Calib. Ref.: AE05016A                    Instrument ID: H7
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0335	0.0400	84	60-140

Notes:

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

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

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/02/22 10:57
Project     : 38001111                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/05/22 23:51
Sample ID   : 380-1127-1                 Date Analyzed: 05/05/22 23:51
Lab Samp ID: E049-07                     Dilution Factor: 1
Lab File ID: AE05025A                    Matrix: WATER
Ext Btch ID: 22VGH7E02                   % Moisture: NA
Calib. Ref.: AE05016A                    Instrument ID: H7
=====

```

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0337	0.0400	84	60-140

Notes:

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

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

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/02/22 10:57
Project     : 38001111                   Date Received: 05/05/22
Batch No.   : 22E049                      Date Extracted: 05/06/22 00:25
Sample ID   : 380-1127-2                  Date Analyzed: 05/06/22 00:25
Lab Samp ID: E049-08                      Dilution Factor: 1
Lab File ID: AE05026A                     Matrix: WATER
Ext Btch ID: 22VGH7E02                    % Moisture: NA
Calib. Ref.: AE05016A                     Instrument ID: H7
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS				
	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0334	0.0400	84	60-140

Notes:

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

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

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# QC SUMMARIES

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/05/22 12:15
Project    : 38001111                   Date Received: 05/05/22
Batch No.  : 22E049                      Date Extracted: 05/05/22 12:15
Sample ID  : MBLK1W                      Date Analyzed: 05/05/22 12:15
Lab Samp ID: VGH7E02B                   Dilution Factor: 1
Lab File ID: AE05005A                   Matrix: WATER
Ext Btch ID: 22VGH7E02                  % Moisture: NA
Calib. Ref.: AE05004A                   Instrument ID: H7
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0362	0.0400	90	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 : 38001111  
BATCH NO. : 22E049  
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W
LAB SAMPLE ID : VGH7E02B                         VGH7E02L
LAB FILE ID  : AE05005A                         AE05006A
DATE PREPARED : 05/05/22 12:15                 05/05/22 12:50
DATE ANALYZED : 05/05/22 12:15                 05/05/22 12:50
PREP BATCH   : 22VGH7E02                       22VGH7E02
CALIBRATION REF: AE05004A                      AE05004A
=====
  
```

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	0.436	87	0.500	0.452	90	4	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0437	109	0.0400	0.0451	113	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 : 38001111  
BATCH NO. : 22E049  
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 380-1106-1                         380-1106-1MS
LAB SAMPLE ID : E049-01                          E049-01M
LAB FILE ID  : AE05017A                          AE05018A
DATE PREPARED : 05/05/22 19:17                   05/05/22 19:51
DATE ANALYZED : 05/05/22 19:17                   05/05/22 19:51
PREP BATCH   : 22VGH7E02                          22VGH7E02
CALIBRATION REF: AE05016A                         AE05016A
=====
  
```

ACCESSION:

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

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0450	113	0.0400	0.0467	117	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

38001111

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22E049

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CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 38001111

SDG : 22E049

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

A total of four(4) water samples were received on 05/05/22 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/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. DSE013WB - 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 DSE013WL. 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 22E049-05M/22E049-05S. 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

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 EXTRACTION

Client : EUROFINS EATON ANALYTICAL  
 Project : 38001111  
 SDG NO. : 22E049  
 Instrument ID : D5

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
									WATER
MBLK1W	DSE013WB	1	NA	05/10/2215:29	05/09/2211:30	LE10010A	LE10004A	22DSE013W	Method Blank
LCS1W	DSE013WL	1	NA	05/10/2215:48	05/09/2211:30	LE10011A	LE10004A	22DSE013W	Lab Control Sample (LCS)
380-1106-1	E049-01	1	NA	05/10/2216:43	05/09/2211:30	LE10014A	LE10004A	22DSE013W	Field Sample
380-1124-1	E049-03	1	NA	05/10/2217:02	05/09/2211:30	LE10015A	LE10004A	22DSE013W	Field Sample
380-1130-1	E049-05	1	NA	05/10/2217:20	05/09/2211:30	LE10016A	LE10004A	22DSE013W	Field Sample
380-1130-1MS	E049-05M	1	NA	05/10/2217:39	05/09/2211:30	LE10017A	LE10004A	22DSE013W	Matrix Spike Sample (MS)
380-1130-1MSD	E049-05S	1	NA	05/10/2217:57	05/09/2211:30	LE10018A	LE10004A	22DSE013W	MS Duplicate (MSD)
380-1127-1	E049-07	1	NA	05/10/2219:29	05/09/2211:30	LE10023A	LE10004A	22DSE013W	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: 05/02/22 09:30
Project     : 38001111                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/09/22 11:30
Sample ID   : 380-1106-1                 Date Analyzed: 05/10/22 16:43
Lab Samp ID: 22E049-01                   Dilution Factor: 1
Lab File ID: LE10014A                     Matrix: WATER
Ext Btch ID: 22DSE013W                    % Moisture: NA
Calib. Ref.: LE10004A                     Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)		
Diesel	ND	0.026	0.013		
Motor Oil	ND	0.052	0.026		
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT	
Bromobenzene	0.497	0.525	95	60-130	
Hexacosane	0.125	0.131	96	60-130	

Notes:  
Parameter H-C Range  
Diesel C10-C24  
Motor Oil C24-C36  
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.  
Sample Amount : 950ml Final Volume : 5ml  
Prepared by : PDreto Analyzed by : SDeeso

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/02/22 10:23
Project     : 38001111                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/09/22 11:30
Sample ID   : 380-1124-1                 Date Analyzed: 05/10/22 17:02
Lab Samp ID: 22E049-03                   Dilution Factor: 1
Lab File ID: LE10015A                     Matrix: WATER
Ext Btch ID: 22DSE013W                   % Moisture: NA
Calib. Ref.: LE10004A                   Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)		
Diesel	ND	0.027	0.014		
Motor Oil	ND	0.055	0.027		
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT	
Bromobenzene	0.508	0.545	93	60-130	
Hexacosane	0.133	0.136	97	60-130	

Notes:

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

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 920ml                      Final Volume : 5ml  
Prepared by : P0reto                        Analyzed by : SDeeso



METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/02/22 10:30
Project     : 38001111                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/09/22 11:30
Sample ID   : 380-1130-1                 Date Analyzed: 05/10/22 17:20
Lab Samp ID: 22E049-05                   Dilution Factor: 1
Lab File ID: LE10016A                    Matrix: WATER
Ext Btch ID: 22DSE013W                   % Moisture: NA
Calib. Ref.: LE10004A                    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	0.516	0.540	96	60-130	
Hexacosane	0.131	0.135	97	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 : POrto                              Analyzed by : SDeeso

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/02/22 10:57
Project     : 38001111                   Date Received: 05/05/22
Batch No.   : 22E049                     Date Extracted: 05/09/22 11:30
Sample ID   : 380-1127-1                 Date Analyzed: 05/10/22 19:29
Lab Samp ID: 22E049-07                   Dilution Factor: 1
Lab File ID: LE10023A                    Matrix: WATER
Ext Btch ID: 22DSE013W                   % Moisture: NA
Calib. Ref.: LE10004A                    Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.028	0.014	
Motor Oil	ND	0.055	0.028	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.551	0.550	100	60-130
Hexacosane	0.131	0.138	95	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 : 910ml                      Final Volume : 5ml  
Prepared by : POrto                         Analyzed by : SDeeso

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# QC SUMMARIES

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/09/22 11:30
Project    : 38001111                   Date Received: 05/09/22
Batch No.  : 22E049                     Date Extracted: 05/09/22 11:30
Sample ID  : MBLK1W                      Date Analyzed: 05/10/22 15:29
Lab Samp ID: DSE013WB                   Dilution Factor: 1
Lab File ID: LE10010A                    Matrix: WATER
Ext Btch ID: 22DSE013W                   % Moisture: NA
Calib. Ref.: LE10004A                    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	0.487	0.500	97	60-130
Hexacosane	0.123	0.125	99	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 : POrto                              Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA  
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 38001111  
BATCH NO. : 22E049  
METHOD : 3520C/8015B

=====

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR:	1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSE013WB	DSE013WL
LAB FILE ID	: LE10010A	LE10011A
DATE PREPARED	: 05/09/22 11:30	05/09/22 11:30
DATE ANALYZED	: 05/10/22 15:29	05/10/22 15:48
PREP BATCH	: 22DSE013W	22DSE013W
CALIBRATION REF:	LE10004A	LE10004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Diesel	ND	2.50	2.45	98	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.518	104	60-130
Hexacosane	0.125	0.128	102	60-130

MB: Method Blank sample    LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA  
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 38001111  
BATCH NO. : 22E049  
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 380-1130-1                         380-1130-1MS  380-1130-1MSD
LAB SAMPLE ID : 22E049-05                       22E049-05M  22E049-05S
LAB FILE ID  : LE10016A                         LE10017A    LE10018A
DATE PREPARED : 05/09/22 11:30                 05/09/22 11:30  05/09/22 11:30
DATE ANALYZED : 05/10/22 17:20                 05/10/22 17:39  05/10/22 17:57
PREP BATCH   : 22DSE013W                       22DSE013W    22DSE013W
CALIBRATION REF: LE10004A                       LE10004A    LE10004A
  
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.40	2.40	100	2.40	2.30	96	4	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.480	0.480	100	0.480	0.486	101	60-130
Hexacosane	0.120	0.120	100	0.120	0.125	104	60-130

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

# CHAIN OF CUSTODY RECORD

EUROFINS EATON ANALYTICAL USE ONLY

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)

SAMPLES CHECKED AGAINST C/L

SAMPLES LOGGED IN BY: \_\_\_\_\_

SAMPLES REC'D DAY OF COLLECTION?  (L)  (S)

SAMPLE TEMP RECEIVED AT:  
 Colton / No California / Arizona  
 Monrovia  
 \_\_\_\_\_ °C ( Compliance 4 ± 2 °C )  
 \_\_\_\_\_ °C ( Compliance 4 ± 2 °C )

CONDITION OF BLUE ICE: Frozen \_\_\_\_\_ Thawed \_\_\_\_\_ Wet Ice \_\_\_\_\_ No Ice \_\_\_\_\_

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: \_\_\_\_\_

TO BE COMPLETED BY SAMPLER

(check for yes)

COMPANY/AGENCY NAME: <b>HONOLULU BOARD OF WATER SUPPLY</b>		PROJECT CODE: <b>RED HILL-Weekly</b>		COMPLIANCE SAMPLES <input type="checkbox"/> NON-COMPLIANCE SAMPLES <input checked="" type="checkbox"/> X - Requires state forms REGULATION INVOLVED	
EEA CLIENT CODE: COC ID: _____		SAMPLE GROUP: _____		Type of samples (circle one) ROUTINE SPECIAL CONFIRMATION (eg SDWA, Phase V, NPDES, FDA, ) <b>SEE ATTACHED BOTTLE ORDER FOR ANALYSES</b> (check for yes), <u>OR</u> list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	
TAT requested: <b>RUSH</b>		STD _____ 1 wk _____ 3 day _____ 2 day _____ 1 day _____		(check for yes)	
SAMPLE ID HI0000331-223		CLIENT LAB ID CFW			
SAMPLE DATE 5/2/22		SAMPLE TIME 1030		Red Hill <b>X</b>	
SAMPLE ID Moanalua Wells		CLIENT LAB ID CFW		Red Hill <b>X</b>	
SAMPLE DATE 5/2/22		SAMPLE TIME 1030		Red Hill <b>X</b>	
SAMPLE ID Moanalua Wells		CLIENT LAB ID CFW		Red Hill <b>X</b>	
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SAMPLE DATE 5/2/22		SAMPLE TIME 1030		Red Hill <b>X</b>	
SAMPLE ID Moanalua Wells		CLIENT LAB ID CFW		Red Hill <b>X</b>	
SAMPLE DATE 5/2/22		SAMPLE TIME			



### Kit Order for Honolulu Board of Water Supply

Debbie L Frank is your Eurofins Eaton Analytical, LLC Service Manager

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
(626) 386-1100 FAX (866) 988-3757

Created Date & Time: 12/27/2021 12:07:03AM

**Note: Sampler Please return this paper with your samples**

Kit #: 308898  
Created By: - [AutoGenerated]  
Deliver By: 01/26/2022  
STG: Bottle Orders  
Ice Type: G  
Pre Registered

Client ID: HONOLULU  
Project Code: RED-HILL - Bottle Orders  
Group Name: Red-Hill Expanded List (Albuquerque+)  
PO#/JOB#: C20525101 exp 05312023  
Description: MOANALUA WELLS - Every 1 wee

**Ship Sample Kits to**  
Honolulu Board of Water Supply  
630 South Beretania Street  
Chemistry Lab  
Honolulu, HI 96843  
Attn: Ron Fenstermacher  
Phone: 808-748-5841  
Fax: 808-550-5572

**Send Report to**  
Honolulu Board of Water Supply  
630 South Beretania Street  
Public Service Bldg. Room 308  
Honolulu, HI 96843  
Attn: Erwin Kawata  
Phone: 808-748-5091  
Fax: 808-550-5018

**Billing Address**  
Honolulu Board of Water Supply  
630 South Beretania Street  
Public Service Bldg. Room 308  
Honolulu, HI 96843  
Attn: Erwin Kawata  
Phone: 808-748-5091  
Fax: 808-550-5018

# of Sample Tests	Bottle Qty - Type [ preservative information ]	Total	UN DOT #
1	TPH 8015 Diesel and Motor Oil_C, TPH 8015 Jet Fuel 5_C, TPH 8015 Jet Fuel 8_C	9	
1	8015 Gas_C	3	
1	8015 Gas_C TB	2	
1	@VOASDWA-G-plus-plus-IBC-IBC	3	JUN1789
<b>Sum Tests: 4</b>		<b>Sum Bottles: 17</b>	

**Comments**  
Std-MSMSD

SITE ID: MOANALUA WELLS (331-223-TP202)

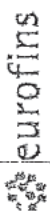
SAMPLER: Eight 1 LITER AMBER GLASS BOTTLES FOR 625 SERIES AND Nine 1 LITER AMBER GLASS BOTTLES FOR TPH 8015 SERIES. THIS IS A MSMSD SITE for 600 and 8000 series testing

SHIPPING: Travel Blanks - TBAMTBE, VOASDWA - Prepare TBs in the VOA LAB. Label Cooler on TOP and right below both Handles with Site description of contents ( use extra Containr Labels)

ASM: Be sure to coordinate Follow-up as needed for any new detections in Field samples. Acetone - follow-ups need to use EPA 624

Order	Status	Date Shipped	Via	Tracking #	# of Coolers	Prepared By
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						





# INTERNAL CHAIN OF CUSTODY RECORD

Eaton Analytical

EEA Folder Number: 1190

SAMPLE TEMP RECEIVED:  
Notes: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.  
SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 049A (Observation = 1.9 °C) (Corr.Factor = -0.3 °C) (Final = 1.6 °C)  
TYPE OF ICE: Real  Synthetic  No ice  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: < 10°C (if received after 2, hours of sample collection)

If out of temperature range 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

1 = (Observation) _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)	2 = (Observation) _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)
3 = (Observation) _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)	4 = (Observation) _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)

4 Dioxin (1613 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:  Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)  
Exempt from headspace concerns: Methods 615.4, HAA(6251,552), 606, SPME, @CH, 632LCMS, 666, 636, Anatoxin, LCMS methods using 40 microliters, International clients:

Samp ID	Bottle #	None/<6	>6mm	Test	Samp ID	Bottle #	None/<6	>6mm	Test

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): \_\_\_\_\_  
RECEIVED BY: [Signature] SIGNATURE: G. REITNER PRINT NAME: Eurofins Eaton Analytical COMPANY/TITLE: Eurofins Eaton Analytical DATE: 05/04/22 TIME: 11:11  
SAMPLES CHECKED AGAINST COC BY: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_ PRINT NAME: Eurofins Eaton Analytical COMPANY/TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_



Eaton Analytical

# INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number: 1130

SAMPLE TEMP RECEIVED:  
Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.  
SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 4.4 °C) (Corr. Factor = -0.3 °C) (Final = 4.1 °C)

TYPE OF ICE: Real  Synthetic  No 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: < 10°C (if received after 2 hours of sample collection)

If out of temperature range 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

1 = (Observation = _____ °C) (Corr. Factor = <u>-0.3</u> °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr. Factor = <u>-0.3</u> °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr. Factor = <u>-0.3</u> °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr. Factor = <u>-0.3</u> °C) (Final = _____ °C)

- 4) Dioxin (1613 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) Headspace:  No Samples with Headspace:  Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)  
Exempt from headspace concerns: Methods 615.4, HAA(6251,652), 605, SPME, @CH, 632LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, international clients:

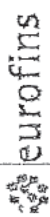
Samp ID	Bottle #	None/≤6	>6mm	Test	Samp ID	Bottle #	None/≤6	>6mm	Test

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

RECEIVED BY: [Signature] SIGNATURE G. REITNER PRINT NAME Eurofins Eaton Analytical COMPANY/TITLE 05/04/22 DATE 11:11 TIME

SAMPLES CHECKED AGAINST COG BY: \_\_\_\_\_ SIGNATURE \_\_\_\_\_ PRINT NAME Eurofins Eaton Analytical COMPANY/TITLE \_\_\_\_\_ DATE \_\_\_\_\_ TIME \_\_\_\_\_





# INTERNAL CHAIN OF CUSTODY RECORD

Eaton Analytical

EEA Folder Number: 1170

SAMPLE TEMP RECEIVED:

Note: If samples are out of temperature range, let the ASMS know. ASMS will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 049A (Observation = 4.8 °C) (Corr.Factor = -0.3 °C) (Final = 4.5 °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: < 10°C (If received after 2, hours of sample collection)

If out of temperature range 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

1 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)

4 Dioxin (1613 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:  Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 815.4, HAA(6251,652), 605, SPME, @CH, 532LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, international clients: \_\_\_\_\_

Samp ID	Bottle #	None/<6	>6mm	Test	Samp ID	Bottle #	None/<6	>6mm	Test

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

RECEIVED BY: [Signature] PRINT NAME: G. REITNER COMPANY/TITLE: Eurofins Eaton Analytical DATE: 05/04/22 TIME: 11:11

SAMPLES CHECKED AGAINST COC BY: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_ PRINT NAME: \_\_\_\_\_ COMPANY/TITLE: Eurofins Eaton Analytical DATE: \_\_\_\_\_ TIME: \_\_\_\_\_



# INTERNAL CHAIN OF CUSTODY RECORD

Eaton Analytical

EEA Folder Number: Wp  
SAMPLE TEMP RECEIVED: 5.6 °C (Final = 5.3 °C)  
Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.  
SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 049A (Observation = 5.6 °C) (Corr.Factor = -0.3 °C) (Final = 5.3 °C)  
TYPE OF ICE: Real  Synthetic  No Ice  Partially Frozen  Thawed  N/A

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: < 10°C (if received after 2 hours of sample collection)

If out of temperature range 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

1 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)

4) Dioxin (1613 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:  Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon internal COFC for additional bottles)

Exempt from headspace concerns: Methods 515.4, HAA(5251,552), 505, SPME, @CH, 532LCMS, 556, 536, Anastoxin, LCMS methods using 40 ml vials, International clients: None/<6 mm

Samp ID	None/<6 mm	>6mm	Test	Samp ID	None/<6 mm	>6mm	Test

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

RECEIVED BY: G. REITNER SIGNATURE: [Signature] PRINT NAME: G. REITNER

SAMPLES CHECKED AGAINST COC BY: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_ PRINT NAME: \_\_\_\_\_





# INTERNAL CHAIN OF CUSTODY RECORD

Eaton Analytical

EEA Folder Number: 130

### SAMPLE TEMP RECEIVED:

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 649A (Observation = 5.5 °C) (Corr.Factor = -0.3 °C) (Final = 5.2 °C)

TYPE OF ICE: Real  Synthetic  No 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: < 10°C (if received after 2 hours of sample collection)

If out of temperature range 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

1 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr.Factor = <u>-0.3</u> °C) (Final = _____ °C)

4 Dioxin (1613 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  No Samples with Headspace:  Samples with Headspace (see below):

Headspace: Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 615.4, HAA(6251.652), 605, SPME, @CH, 532LCMS, 656, 638, Antoxin, LCMS methods using 40 ml vials, International clients:

Samp ID	Bottle #	None/<6	>6mm	Test	Samp ID	Bottle #	None/<6	>6mm	Test

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

RECEIVED BY: [Signature] PRINT NAME: G. REITNER COMPANY/TITLE: Eurofins Eaton Analytical DATE: 05/04/22 TIME: 11:11

SAMPLES CHECKED AGAINST COC BY: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_ PRINT NAME: Eurofins Eaton Analytical COMPANY/TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_



## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-1130-1

**Login Number: 1130**

**List Source: Eurofins Eaton Monrovia**

**List Number: 1**

**Creator: Ngo, Theodore**

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

