

Environment Testing America

ANALYTICAL REPORT

Eurofins Eaton Monrovia 750 Royal Oaks Drive Suite 100 Monrovia, CA 91016

Tel: (626)386-1100

Laboratory Job ID: 380-22200-1 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

However I Hobb

Authorized for release by: 10/26/2022 5:42:23 PM Kathleen Robb, Client Program Manager (949)261-1022

Designee for

Rachelle Arada, Manager of Project Management (626)386-1106

Rachelle.Arada@et.eurofinsus.com

Kathleen.Robb@et.eurofinsus.com



This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Laboratory Job ID: 380-22200-1

- 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)

Kathleen Robb

Client Program Manager 10/26/2022 5:42:23 PM

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Eurofins		
	10/26	5/2022

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Definitions/Glossary

Client: City & County of Honolulu Job ID: 380-22200-1

Project/Site: RED-HILL

Qualifiers

Subcontract

Qualifier **Qualifier Description**

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

Duplicate Error Ratio (normalized absolute difference) **DER**

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)

Estimated Detection Limit (Dioxin) **EDL** 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 Method Quantitation Limit MQL

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**

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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Case Narrative

Client: City & County of Honolulu

Job ID: 380-22200-1 Project/Site: RED-HILL

Job ID: 380-22200-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative 380-22200-1

Comments

No additional comments.

Receipt

The sample was received on 9/28/2022 9:50 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.4° C.

Subcontract non-Sister

See attached subcontract report.

Subcontract Work

Method 8015 Ethanol: This method was subcontracted to EMAX Laboratories Inc. The subcontract laboratory certification is different from that of the facility issuing the final report.

Detection Summary

Client: City & County of Honolulu Job ID: 380-22200-1

Project/Site: RED-HILL

Client Sample ID: HALAWA SHAFT VIEWING POOL

Lab Sample ID: 380-22200-1

No Detections.

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Client Sample Results

Client: City & County of Honolulu Job ID: 380-22200-1

Project/Site: RED-HILL

Client Sample ID: HALAWA SHAFT VIEWING POOL Lab Sample ID: 380-22200-1

Date Collected: 09/26/22 09:30 Matrix: Water

Date Received: 09/28/22 09:50

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
FTHANOI	ND	U	2000		ua/I			09/30/22 13:44		

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QC Sample Results

Client: City & County of Honolulu Job ID: 380-22200-1

Project/Site: RED-HILL

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Lab Sample ID: 22MEI004WB **Client Sample ID: Method Blank**

Matrix: WATER

Analysis Batch: 22MEI004W

MB MB

MDL Unit Dil Fac Analyte Result Qualifier RL Prepared Analyzed ETHANOL 09/30/22 11:57 2000 ND U ug/L

Lab Sample ID: 22MEI004WL **Client Sample ID: Lab Control Sample Matrix: WATER**

Analysis Batch: 22MEI004W

LCS LCS Spike Analyte

ETHANOL

Prep Type: Total/NA

Prep Type: Total/NA

%Rec Added Result Qualifier Unit D %Rec Limits 10000 10500

105 60 - 130 ug/L

Eurofins Eaton Monrovia

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QC Association Summary

Job ID: 380-22200-1

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

Subcontract

Analysis Batch: 22MEI004W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-22200-1	HALAWA SHAFT VIEWING POOL	Total/NA	Water	8015 Ethanol	
22MEI004WB	Method Blank	Total/NA	WATER	8015 Ethanol	
22MEI004WL	Lab Control Sample	Total/NA	WATER	8015 Ethanol	

Lab Chronicle

Client: City & County of Honolulu Job ID: 380-22200-1

Project/Site: RED-HILL

Client Sample ID: HALAWA SHAFT VIEWING POOL Lab Sample ID: 380-22200-1

Date Collected: 09/26/22 09:30

Matrix: Water

Date Received: 09/28/22 09:50

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015 Ethanol		1	22MEI004W	ASitu		09/30/22 13:44

Laboratory References:

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

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Method Summary

Client: City & County of Honolulu

Project/Site: RED-HILL

Method	Method Description	Protocol	Laboratory
8015B	SW846 8015B Gasoline Range Organics	SW846	

Protocol References:

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

Job ID: 380-22200-1

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Sample Summary

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

Job ID: 380-22200-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-22200-1	HALAWA SHAFT VIEWING POOL	Water	09/26/22 09:30	09/28/22 09:50

LABORATORIES, INC.

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

Date: 10-18-2022 EMAX Batch No.: 221349

Attn: Jackie Contreras

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

Subject: Laboratory Report

Project: 380-22200

Enclosed is the Laboratory report for samples received on 09/29/22.

The data reported relate only to samples listed below:

Sample ID 380-22200-1 Control # Col Date

Matrix

Analysis

1349-01 09/26/22

WATER

ETHANOL

The results are summarized on the following pages.

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

Sincerely

Caspar J. Pang Laboratory Director

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

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

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

Monrovia, CA (Suite 100)

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

Chain of Custody Record

💸 eurofins

Environment Testing

N - None
O - Ashlado
P - Na204S
Q - Na204S
Q - Na2803
R - Na2803
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - PH 4-5
V - Thzma Special Instructions/Note: Z - other (specify) See Attached Instructions Preservation Codes A - HCL B - NaOH C - Zn Acetate E - Ntric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid COC No: 380-22450.1 380-22200-1 Page 1 of 1 I - Ice J - Di Water K - EDTA Septimina (Greenburk and St. 18) Carrier Tracking No(s) Sate of Origin: Analysis Requested Lawaii Rachelle.Arada@et.eurofinsus.com Accreditations Required (See note): State - Hawaii Arada, Rachelle (wawater, Sasoild, Oawaste/oll, BT=Tissue, Water A=Air) (C=comb, G=grab) Sample Type Sample Hawaiian Time TAT Requested (days): Due Date Requested: 10/12/2022 Sample Date 9/26/22 Project #: 38001111 SSOW#: ₩O#: Phone: (Sub Contract Lab) HALAWA SHAFT VIEW POOL (380-22200-1) Sample Identification - Client ID (Lab ID) Client Information EMAX Laboratories Inc Honolulu BWS Sites Shipping/Receiving 3051 Fujita Street State, Zip: CA, 90505 roject Name RED-HILL Torrance Email: Page 14 of 29

Note: Since Baboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratory or other instructions will be provided. Any changes to accreditation status should be brought to currently maintain accreditation in the State of Origin isted above for analysis/lests/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 accreditations stress accreditations are oursent to date, return the signed Chain of Custody attesting to said complicance to Eurofins Eaton Analytical, LLC. Sample Disposal (A fee may be assessed if samples ar e retained longer than 1 month, Possible Hazard Identification

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Relinquished by:	Date/Time:	Company	Received by:	Date/Time: Co	Company
2 CREPORTIGO: DO ONE DO NO.			Cooler Temperature(s) °C and Other Remarks:	Page	Page 2 of 13
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Client Name	COC INSPECTION						
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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.
В	В	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

REPORT ID: 22I349

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.

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LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-22200

METHOD SW8015C ALCOHOLS BY GC

SDG#: 221349

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-22200

SDG : 22I349

METHOD SW8015C ALCOHOLS BY GC

One(1) water sample was received on 09/29/22 to be analyzed for Alcohols by GC in accordance with Method SW8015C and project specific requirements.

Holding Time

The sample was analyzed within the prescribed holding time.

Calibration

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

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. MEI004WB - 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. MEI004WL/MEI004WC were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

No matrix QC sample was provided on this SDG. Ethanol was within MS QC limits in I334-01M/I334-01S. Refer to Matrix QC summary form for details.

Sample Analysis

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

: EUROFINS EATON ANALYTICAL

: 380-22200

Project

Client

: 221349 : GCT050

Instrument ID SDG NO.

Lab Control Sample (LCS) LCS Duplicate

MEI004W MEI004W MEI004W MEI 004W Batch

T130003A T130003A T130003A

T130006A T130007A T130011A

X X X X

09/30/2212:25 09/30/2213:44

A A A A

MEI004WL MEI004WC I349-01 ME I 004WB

LCD1W 380-22200-1

FN - Filename % Moist - Percent Moisture

- Filename

09/30/2211:57 09/30/2212:11

T130003A Data FN

T130005A

Field Sample

Method Blank

Notes

Calibration Prep.

Sample Data FN

Extraction DateTime

Analysis DateTime

Moist

Laboratory Dilution Sample ID Factor

Sample ID

Client

MBLK1W

LCS1W

%

WATER

10/26/2022

SAMPLE RESULTS

METHOD SW8015C ALCOHOLS BY GC

Client : EUROFINS EATON ANALYTICAL Date Collected: 09/26/22 Date Received: 09/29/22

Project : 380-22200 Batch No. : 22I349 Date Extracted: NA

Sample ID: 380-22200-1 Date Analyzed: 09/30/22 13:44 Dilution Factor: 1 Lab Samp ID: 1349-01 Lab File ID: TI30011A

Matrix : WATER % Moisture : NA Ext Btch ID: MEI004W Instrument ID : GCT050 Calib. Ref.: TI30003A

RL (ug/L) RESULTS (ug/L) **PARAMETERS** (ug/L) ND 2000 500 ETHANOL

: Reporting Limit

QC SUMMARIES

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Client : EUROFINS EATON ANALYTICAL Date Collected: NA Date Received: NA

Date Extracted: NA Date Analyzed: 09/30/22 11:57

Sample ID: MBLK1W Lab Samp ID: MEI004WB Dilution Factor: 1 Matrix : WATER % Moisture : NA Lab File ID: TI30005A Ext Btch ID: MEI004W Instrument ID : GCT050 Calib. Ref.: TI30003A

	RESULTS	RL	MDL
PARAMETERS	(ug/L)	(ug/L)	(ug/L)
ETHANOL	ND	2000	500

RL: Reporting Limit

Project : 380-22200 Batch No. : 221349

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

EUROFINS EATON ANALYTICAL

PROJECT:

380-22200

BATCH NO.:

221349

METHOD: METHOD SW8015C

MATRIX: DILUTION FACTOR: 1

WATER

SAMPLE ID: LAB SAMP ID:

DATE ANALYZED:

DATE EXTRACTED: NA

LAB FILE ID:

MBLK1W MEI004WB

MEI004WL

MEI004WC T130007A

T130006A

NA

NA 09/30/2211:57 09/30/2212:11 09/30/2212:25

DATE COLLECTED: NA DATE RECEIVED:

% MOISTURE:

PREP. BATCH: CALIB. REF:

MEI004W

T130005A

T130003A

MEI004W T130003A MEI004W T130003A

ACCESSION:

PARAMETER Ethanol

(ug/L)

BLNK RSLT SPIKE AMT (ug/L) 10000 ND

BS RSLT (ug/L) 10500

% REC 105

BS

(ug/L) 10000

11200

(ug/L)

SPIKE AMT BSD RSLT

NA

112

BSD

% REC

RPD

(%)

60-130

QC LIMIT MAX RPD

(%) (%)

EMAX QUALITY CONTROL DATA MS/MSD ANALYSIS

CLIENT:

EUROFINS EATON ANALYTICAL

PROJECT:

380-22067

BATCH NO.:

221334

METHOD:

METHOD SW8015C

MATRIX:

DATE ANALYZED:

DILUTION FACTOR: 1

% MOISTURE:

DATE COLLECTED: 09/26/22

DATE RECEIVED: 09/28/22

NA

SAMPLE ID: LAB SAMP ID:

WATER 380-22067-1 1334-01

I334-01M

1334-01s T130010A

LAB FILE ID: T130008A DATE EXTRACTED: NA

T130009A NA

NA

ME I 004W

09/30/2212:40 09/30/2213:11 09/30/2213:26

MEI004W

PREP. BATCH: CALIB. REF:

ME I 004W T130003A

T130003A

T130003A

ACCESSION:

	SMPL RSLT	SPIKE AMT	MS RSLT	MS	SPIKE AMT	MSD RSLT	MSD	RPD	QC LIMIT	MAX RPD
PARAMETER	(ug/L)	(ug/L)	(ug/L)	% REC	(ug/L)	(ug/L)	% REC	(%)	(%)	(%)
Ethanol	ND	10000	10500	105	10000	9650	97	9	60-130	30

Monrovia, CA (Suite 100)

750 Royal Oaks Drive Suite 100

Monrovia, CA 91016 Phone: 626-386-1100

Chain of Custody Record

🔆 eurofins

Environment Testing America

Client Information	Sampler: OLal	Olaf Happe Arada				Rachelle			rrier Tracking No(s):		COC No: 380-15918-4215.1			
Client Contact: Dr. Ron Fenstemacher	Phone:					State of Origine. Arada@et.eurofinsus.com					rigin:		Page: Page 1 of 1	
Company:	300 /		PWSID:	7			,		o Pogue	otod			Job#:	
City & County of Honolulu Address:	Due Date Requeste	ed:					TT	Analysi	s Reque	steu			Preservation Cod	es:
630 South Beretania Street Chemistry Lab	TAT Requested (da												A - HCL	M - Hexane N - None
City: Honolulu	IAI Requested (da	iys):									1 1		B - NaOH C - Zn Acetate	O - AsNaO2 P - Na2O4S
State, Zip: H1, 96843	Compliance Project	Compliance Project: Δ Yes Δ No						Water:					D - Nitric Acid E - NaHSO4	Q - Na2SO3 R - Na2S2O3
Phone:	PO#:										F - MeOH G - Amchlor	S - H2SO4		
808-748-5091(Tel) Email:	C20525101 exp wo#:	05312023			or No)			200 A 1				H - Ascorbic Acid	T - TSP Dodecshydrate U - Acetone	
RFENSTEMACHER@hbws.org					No.	100			F. 37	3	1 1 1	20	J - DI Water K - EDTA	V - MCAA W - pH 4-5
Project Name: RED-HILL	Project #: 38001111	Project #: 38001111			e (Ye	Etha					containers	L - EDA	Y - Trizma Z - other (specify)	
Site: Hawaii	SSOW#:					ered Sample (Yes or MS/MSD (Yes or No)			380-22200 COC			of con	Other:	
Sample Identification	Sample Date	Sample Time		Matrix (w=water. S=solid, O=waste/eil, BT=Tissue, A::Air)	Field Filtered 8	SUBCON						Total Number		structions/Note:
	_	$\geq \leq$	Preserva	tion Code:	$X \times$	R			+-			$-\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$		
MOANALUA WELLS (331-223-TP202)				Water	Ш									
HALAWA SHAFT VIEW POOL (331-241-TP401)	9-26-22	930	6	Water		3							TALS#	11218
AIEA GULCH WELLS PUMP 2 (331-202-TP072)				Water										
					+									
												+		
					+	++			-					
Possible Hazard Identification Non-Hazard Flammable Skin Irritant	Poison B Unkn	own 🗆	Radiologica	1	Sá	ample I	Disposal (eturn To Cl	A fee ma		essed if sa cosal By La			ned longer than 1 hive For	month) Months
Deliverable Requested: I, II, III, IV, Other (specify)							nstructions							
Empty Kit Relinquished by:		Date:	-		Time	-	1	7		Method of	Shipment:			
Relinquished by:		Date/Time: 4-76-22 1030 Company			Redeived by:			Daletimes S. D.		0950	Company			
Relinquished by:	Date/Time:			Company		Receiv	Ved by:	0			Date/Time:			Company
Relinquished by:	Date/Time:			Company		Received by:				Date/Time:			Company	
Custody Seals Intact: Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:										

ORIGIN ID:HIKA (808) 748-5840 BWS CHEMLAB HONOLULU BOARD OF WATER SUPPLY 630 S, BERETANIA ST. CHEMICAL LABORATORY HONOLULU, HI 96843 UNITED STATES US

SHIP DATE: 27SEP22 ACTWGT: 63.00 LB CAD: 100205419/INET4530

BILL RECIPIENT

M. VASQUEZ **EUROFINS EATON ANALYTICAL, INC** 750 ROYAL OAKS DR MONROVIA CA 91016 (626) 386-1178 SUITE 100

581.11/EC8C/FE2D

PO:

DEPT

Fedex.

WED - 28 SEP 10:30A 1 of 3 PRIORITY OVERNIGHT 7700 5255 0619

MASTER

91016 CA-US BUR



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Eurolins Ealon Analytical

Login Sample Receipt Checklist

Client: City & County of Honolulu Job Number: 380-22200-1

Login Number: 22200 List Source: Eurofins Eaton Monrovia

List Number: 1

Creator: Segura, Ryan

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

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