

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Terri Choy
AECOM
1001 Bishop Street
Honolulu, Hawaii 96813
Generated 5/24/2023 3:02:20 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-127341-1

Eurofins Seattle

Job Notes

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

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
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(253)248-4972



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Definitions	5
Client Sample Results	6
QC Sample Results	11
Chronicle	12
Certification Summary	13
Sample Summary	14
Chain of Custody	15
Receipt Checklists	21

Case Narrative

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-127341-1

Job ID: 580-127341-1

Laboratory: Eurofins Seattle

Narrative

CASE NARRATIVE

Client: AECOM
Project: Red Hill - AFFF Assessment Sampling
Report Number: 580-127341-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

Five samples were received on 5/17/2023 10:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

GLYCOLS

Samples AF-RHMW17-WGN01LF-2305W2 (580-127341-1), AF-RHMW17S-WGN01LF-2305W2 (580-127341-2), AF-RHMW17S-WQEB01-2305W2 (580-127341-3), AF-RHMW17D-WGN01LF-2305W2 (580-127341-4) and AF-RHMW17D-WQFB01-2305W2 (580-127341-5) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 05/22/2023 and 05/23/2023.

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

Definitions/Glossary

Client: AECOM

Job ID: 580-127341-1

Project/Site: Red Hill - AFFF Assessment Sampling

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Glossary

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

Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-127341-1

Client Sample ID: AF-RHMW17-WGN01LF-2305W2

Lab Sample ID: 580-127341-1

Date Collected: 05/12/23 13:35

Matrix: Water

Date Received: 05/17/23 10:25

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	1.1	mg/L			05/22/23 23:17	1

- 1
- 2
- 3
- 4
- 5
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- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: AECOM

Job ID: 580-127341-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW17S-WGN01LF-2305W2

Lab Sample ID: 580-127341-2

Date Collected: 05/12/23 10:25

Matrix: Water

Date Received: 05/17/23 10:25

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/22/23 23:40	1

- 1
- 2
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- 8
- 9
- 10
- 11

Client Sample Results

Client: AECOM

Job ID: 580-127341-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW17S-WQEB01-2305W2

Lab Sample ID: 580-127341-3

Date Collected: 05/12/23 11:10

Matrix: Water

Date Received: 05/17/23 10:25

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	1.1	mg/L			05/23/23 00:03	1

- 1
- 2
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- 8
- 9
- 10
- 11

Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-127341-1

Client Sample ID: AF-RHMW17D-WGN01LF-2305W2

Lab Sample ID: 580-127341-4

Date Collected: 05/12/23 12:25

Matrix: Water

Date Received: 05/17/23 10:25

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	1.1	mg/L			05/23/23 00:26	1

- 1
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Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-127341-1

Client Sample ID: AF-RHMW17D-WQFB01-2305W2

Lab Sample ID: 580-127341-5

Date Collected: 05/12/23 11:30

Matrix: Water

Date Received: 05/17/23 10:25

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/23/23 00:50	1

- 1
- 2
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QC Sample Results

Client: AECOM
 Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-127341-1

Method: 8015C GLY - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 680-779880/9
Matrix: Water
Analysis Batch: 779880

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

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			05/22/23 21:20	1

Lab Sample ID: LCS 680-779880/5
Matrix: Water
Analysis Batch: 779880

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	20.0	19.3		mg/L		97	50 - 150

Lab Sample ID: LCSD 680-779880/6
Matrix: Water
Analysis Batch: 779880

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	20.0	20.3		mg/L		102	50 - 150	5	50

Lab Chronicle

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-127341-1

Client Sample ID: AF-RHMW17-WGN01LF-2305W2

Lab Sample ID: 580-127341-1

Date Collected: 05/12/23 13:35

Matrix: Water

Date Received: 05/17/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	779880	GEM	EET SAV	05/22/23 23:17

Client Sample ID: AF-RHMW17S-WGN01LF-2305W2

Lab Sample ID: 580-127341-2

Date Collected: 05/12/23 10:25

Matrix: Water

Date Received: 05/17/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	779880	GEM	EET SAV	05/22/23 23:40

Client Sample ID: AF-RHMW17S-WQEB01-2305W2

Lab Sample ID: 580-127341-3

Date Collected: 05/12/23 11:10

Matrix: Water

Date Received: 05/17/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	779880	GEM	EET SAV	05/23/23 00:03

Client Sample ID: AF-RHMW17D-WGN01LF-2305W2

Lab Sample ID: 580-127341-4

Date Collected: 05/12/23 12:25

Matrix: Water

Date Received: 05/17/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	779880	GEM	EET SAV	05/23/23 00:26

Client Sample ID: AF-RHMW17D-WQFB01-2305W2

Lab Sample ID: 580-127341-5

Date Collected: 05/12/23 11:30

Matrix: Water

Date Received: 05/17/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	779880	GEM	EET SAV	05/23/23 00:50

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-127341-1

Laboratory: Eurofins Savannah

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

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
8015C GLY		Water	2-(2-Butoxyethoxy)ethanol



Sample Summary

Client: AECOM


Job ID: 580-127341-1

Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-127341-1	AF-RHMW17-WGN01LF-2305W2	Water	05/12/23 13:35	05/17/23 10:25
580-127341-2	AF-RHMW17S-WGN01LF-2305W2	Water	05/12/23 10:25	05/17/23 10:25
580-127341-3	AF-RHMW17S-WQEB01-2305W2	Water	05/12/23 11:10	05/17/23 10:25
580-127341-4	AF-RHMW17D-WGN01LF-2305W2	Water	05/12/23 12:25	05/17/23 10:25
580-127341-5	AF-RHMW17D-WQFB01-2305W2	Water	05/12/23 11:30	05/17/23 10:25

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Chain of Custody Record

Client Information			Sampler: <i>Andy Young</i>	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2305W2AFEA10		
Client Contact:			Phone: <i>402-871-5712</i>	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1		
Company: AECOM		PWSID:		Analysis Requested				
Address: 1001 Bishop St. Suite 1800		Due Date Requested: see subcontract		<div style="position: relative; height: 150px;">  <p style="font-size: 2em; opacity: 0.5; transform: rotate(-45deg); position: absolute; top: 50%; left: 50%;">2848 5/12/23</p> </div>				
City: Honolulu		TAT Requested (days): Rush - 5 Day						
State, Zip: Hawaii 96813		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						
Phone: 808-954-4512 / 770-331-0794		PO #:						
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		WO #:						
Project Name: CTO N6274223F0104		Project #: 60697810		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ica U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EPA Z - other (specify) Other:				
Site: RHSF		SSOW#:						
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil/sediment, BT=trace, A=Air)	Field Filtered Sample (Yes or No)	Preservation Code	Total Number of Containers	Special Instructions/Note
AF-RHMW17-WGN01LF-2305W2	<i>5/12/23</i>	<i>1335</i>	G	W	N	N X	3	
Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Polson B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological								Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)				Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQUS EDD		Special Instructions/QC Requirements: DOD QSM project.		
Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:			
Relinquished by: <i>Andy Young</i>	Date/Time: <i>5/12/23 1445</i>	Company: AECOM	Received by: <i>Alex Edmunds</i>	Date/Time: <i>5/12/23 1445</i>	Company: <i>AECOM</i>			
Relinquished by: <i>Alex Edmunds</i>	Date/Time: <i>5/15/23 1300</i>	Company: <i>AECOM</i>	Received by:	Date/Time: <i>5/17/23 1025</i>	Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <i>3-1/2-9</i>				

Chain of Custody Record

Client Information		Sampler: <i>Andy Young</i>	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	GOC No: 2305W2AFE12																																																																																																				
Client Contact:		Phone: 402-871-5712	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1																																																																																																				
Company: AECOM		PWSID:	Analysis Requested																																																																																																						
Address: 1001 Bishop St, Suite 1600		Due Date Requested: see subcontract	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Field Filtered Sample (Yes or No) 015C_DAL_GL_DS/2-(p-butoxyethoxy)-ethanol [Signature] 5/12/23 </div>																																																																																																						
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Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		WO #:																																																																																																							
Project Name: CTO N6274223F0104		Project #: 60697810																																																																																																							
Site: RHSF		SSOW#:	<table border="1"> <thead> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, Seawater, Urine/urine, etc., BT=Thaw, As=As)</th> <th colspan="3">Field Filtered Sample (Yes or No)</th> <th>Total Number of Containers</th> <th>Special Instructions/Note</th> </tr> <tr> <td colspan="5"></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td colspan="1"></td> </tr> </thead> <tbody> <tr> <td>AF-RHMW 17S-WGN01LF-2305W2</td> <td>5/12/23</td> <td>1025</td> <td>G</td> <td>W</td> <td>N</td> <td>N</td> <td>X</td> <td>3</td> <td></td> </tr> <tr> <td>AF-RHMW 17S-WQEB01-2305W2</td> <td>5/12/23</td> <td>1110</td> <td>G</td> <td>W</td> <td>N</td> <td>N</td> <td>X</td> <td>3</td> <td></td> </tr> <tr> <td colspan="5" style="text-align: center;"> [Signature] 5/12/23 </td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>			Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, Seawater, Urine/urine, etc., BT=Thaw, As=As)	Field Filtered Sample (Yes or No)			Total Number of Containers	Special Instructions/Note						X	X	X	X		AF-RHMW 17S-WGN01LF-2305W2	5/12/23	1025	G	W	N	N	X	3		AF-RHMW 17S-WQEB01-2305W2	5/12/23	1110	G	W	N	N	X	3		 [Signature] 5/12/23 																																																											
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Relinquished by: <i>Alex Edwards</i>		Date/Time: 5/15/23 1300		Company: AECOM																																																																																																					
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Ver: 01/16/2019



Eurofins FGS, Seattle
 5755 8th Street East
 Tacoma, WA 98424

Chain of Custody Record

eurofins Environment Testing
 America

Client Information		Sampler: <i>Andy Young</i>	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2305W2AFEA11																												
Client Contact:		Phone: 402-871-5712	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1																												
Company: AECOM		PWSID:		Analysis Requested																													
Address: 1001 Bishop St. Suite 1600		Due Date Requested: see subcontract		<table border="1"> <tr> <td colspan="2">Preservation Codes:</td> </tr> <tr> <td>A - HCL</td> <td>M - Hexane</td> </tr> <tr> <td>B - NaOH</td> <td>N - None</td> </tr> <tr> <td>C - Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td>D - Nitric Acid</td> <td>P - Na2O4S</td> </tr> <tr> <td>E - NaHSO4</td> <td>Q - Na2SO3</td> </tr> <tr> <td>F - MeOH</td> <td>R - Na2S2O3</td> </tr> <tr> <td>G - Amchlor</td> <td>S - H2SO4</td> </tr> <tr> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> </tr> <tr> <td>I - Ice</td> <td>U - Acetone</td> </tr> <tr> <td>J - DI Water</td> <td>V - MCAA</td> </tr> <tr> <td>K - EDTA</td> <td>W - pH 4-5</td> </tr> <tr> <td>L - EDA</td> <td>Z - other (specify)</td> </tr> <tr> <td colspan="2">Other:</td> </tr> </table>		Preservation Codes:		A - HCL	M - Hexane	B - NaOH	N - None	C - Zn Acetate	O - AsNaO2	D - Nitric Acid	P - Na2O4S	E - NaHSO4	Q - Na2SO3	F - MeOH	R - Na2S2O3	G - Amchlor	S - H2SO4	H - Ascorbic Acid	T - TSP Dodecahydrate	I - Ice	U - Acetone	J - DI Water	V - MCAA	K - EDTA	W - pH 4-5	L - EDA	Z - other (specify)	Other:	
Preservation Codes:																																	
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Other:																																	
City: Honolulu		TAT Requested (days): Rush - 5 Day																															
State, Zip: Hawaii 96813		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																															
Phone: 808-954-4512 / 770-331-0784		PO #:																															
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		WO #:																															
Project Name: CTO N6274223F0104		Project #: 60697810																															
Site: RHSP		SSOW#:																															
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=organic, ST=Tissue, A=Al)	Field Filtered Sample (Yes or No)	Preservation Code	Total Number of Containers	Special Instructions/Note:																									
AF-RHMW 17D-WGN01LF-2305W2	5/12/23	1225	G	W	N	N	X	3																									
AF-RHMW 17D-WQFB01-2305W2	5/12/23	1130	G	W	N	N	X	3																									
<i>ASLS</i>		<i>5/12/23</i>																															
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																												
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																												
Deliverable Requested: I, II, III, IV, Other (specify)			Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQHS EDD.		Special Instructions/QC Requirements: DOD QSM project.																												
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:																											
Relinquished by: <i>Andy Young ASLS</i>		Date/Time: 5/12/23 1445		Company: AECOM		Received by: <i>Alex Edmond</i>		Date/Time: 5/12/23 1445		Company: AECOM																							
Relinquished by: <i>Alex Edmond</i>		Date/Time: 5/13/23 1300		Company: AECOM		Received by: <i>[Signature]</i>		Date/Time: 5/13/23 1029		Company:																							
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:																							
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		3.1/2.9																											

Ver: 01/16/2019

Eurofins FGS, Seattle
5755 8th Street East
Tacoma, WA 98424

Chain of Custody Record

eurofins | Environmental Testing
America

Client Information		Sampler: <i>Andy Young</i>		Lab PM: Elaine Walker		Carrier Tracking No(s) FedEx		COC No: 2305W2AFEA10			
Client Contact:		Phone: <i>402-871-5712</i>		E-Mail: M.Elaine.Walker@EurofinsET.com		State of Origin Hawaii		Page: Page 1 of 1			
Company: AECOM		PWSID		Analysis Requested				Job #			
Address: 1001 Bishop St Suite 1600		Due Date Requested: see subcontract		<div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Field Filtered Sample (Yes or No)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Perform MS/MSD (Yes or No)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol</div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <i>2023</i> <i>5/12/23</i> </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-left: 5px;">Total Number of containers</div> </div>				Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other			
City: Honolulu		TAT Requested (days): Rush - 5 Day									
State/Zip: Hawaii 96813		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 808-954-4512 / 770-331-0794		PO #									
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)		WO #									
Project Name: CTO N6274223F0104		Project #: 60697810									
Site: RHSF		SSOW#									
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:	
AF-RHMW17-WGN01LF-2305W2	5/12/23	1335	G	W	N	N	X		3		
<div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Field Filtered Sample (Yes or No)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Perform MS/MSD (Yes or No)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol</div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <i>2023</i> <i>5/12/23</i> </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-left: 5px;">Total Number of containers</div> </div>											
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Deliverable Requested I, II, III, IV, Other (specify)		Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM EQUIS EDD.		Special Instructions/QC Requirements DOD QSM project							
Empty Kit Relinquished by:		Date	Time	Method of Shipment							
Relinquished by: <i>Andy Young</i>		Date/Time: <i>5/12/23 / 1445</i>	Company: AECOM	Received by: <i>Alex Edmunds</i>							
Relinquished by: <i>Alex Edmunds</i>		Date/Time: <i>5/15/23 1300</i>	Company: AECOM	Received by: <i>CU</i>							
Relinquished by:		Date/Time:	Company:	Received by:							
Custody Seals Intact		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <i>3/29</i>							
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											



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Eurofins FGS, Seattle

5755 8th Street East
Tacoma, WA 98424

Chain of Custody Record

eurofins | Environment Testing
America

Client Information				Sampler: <i>Andy Young</i>	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2305W2AFE12																									
Client Contact:				Phone: 402-871-5712	E Mail: M.Elaine Walker@EurofinsET.com	State of Origin: Hawaii	Page 1 of 1																									
Company: AECOM				Analysis Requested																												
Address: 1001 Bishop St. Suite 1600				Due Date Requested: see subcontract				Preservation Codes																								
City: Honolulu				TAT Requested (days): Rush - 5 Day																												
State Zip: Hawaii 96813				Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No				<table border="0"> <tr><td>A HCL</td><td>M Hexane</td></tr> <tr><td>B NaOH</td><td>N None</td></tr> <tr><td>C Zn Acetate</td><td>O AsNaO2</td></tr> <tr><td>D Nitric Acid</td><td>P Na2O4S</td></tr> <tr><td>E NaHSO4</td><td>Q Na2SO3</td></tr> <tr><td>F MeOH</td><td>R Na2S2O3</td></tr> <tr><td>G Amchlor</td><td>S H2SO4</td></tr> <tr><td>H Ascorbic Acid</td><td>T TSP Dodecahydrate</td></tr> <tr><td>I Ice</td><td>U Acetone</td></tr> <tr><td>J DI Water</td><td>V MCAA</td></tr> <tr><td>K EDTA</td><td>W pH 4-5</td></tr> <tr><td>L EDA</td><td>Z other (specify)</td></tr> </table>	A HCL	M Hexane	B NaOH	N None	C Zn Acetate	O AsNaO2	D Nitric Acid	P Na2O4S	E NaHSO4	Q Na2SO3	F MeOH	R Na2S2O3	G Amchlor	S H2SO4	H Ascorbic Acid	T TSP Dodecahydrate	I Ice	U Acetone	J DI Water	V MCAA	K EDTA	W pH 4-5	L EDA	Z other (specify)
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Phone: 808-954-4512 / 770-331-0794				PO #				Total Number of containers																								
Email: Watson Tanj (watson.tanj@aecom.com)/ Mark Kroms (mark.kroms@aecom.com)				WO #																												
Project Name: CTO N6274223F0104				Project #: 60697810																												
Site: RHSF				SSOW#:				Special Instructions/Note:																								
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)																										
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																												
Deliverable Requested I, II, III, IV, Other (specify)				Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM EQUIS EDD.																												
Empty Kit Relinquished by: _____				Date _____ Time _____ Method of Shipment: _____																												
Relinquished by: <i>Andy Young</i>	Date/Time: 5/12/23 1445	Company: AECOM		Received by: <i>Alex Edmund</i>	Date/Time: 5/12/23 1445	Company: AECOM																										
Relinquished by: <i>Alex Edmund</i>	Date/Time: 5/15/22 1300	Company: AECOM		Received by: <i>[Signature]</i>	Date/Time: 5/17/23 1025	Company: _____																										
Relinquished by:	Date/Time:	Company:		Received by:	Date/Time:	Company:																										
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No _____																												
				Cooler Temperature(s) °C and Other Remarks: 31/29																												

Chain of Custody Record



Client Information		Sampler: <i>Andy Young</i>		Lab PM: Elaine Walker		Carrier Tracking No(s): FedEx		COC No: 2305W2AFE11			
Client Contact:		Phone: <i>402-871-5712</i>		E-Mail: M.Elaine.Walker@EurofinsET.com		State of Origin: Hawaii		Page: Page 1 of 1			
Company: AECOM				PWSID				Analysis Requested			
Address: 1001 Bishop St. Suite 1600				Due Date Requested: see subcontract				Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:			
City: Honolulu				TAT Requested (days): Rush - 5 Day							
State Zip: Hawaii 96813				Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone: 808-954-4512 / 770-331-0794				PO #							
Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kroms (mark.kroms@aecom.com)				WO #							
Project Name: CTO N6274223F0104				Project #: 60697810				Total Number of containers: <i>3</i> Total Number of containers: <i>3</i>			
Site: RHSF				SSOW#							
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol	Special Instructions/Note:		
AF-RHMW17D-WGN01LF-2305W2		<i>5/12/23</i>	<i>1225</i>	G	W	N	N	X	<i>3</i>		
AF-RHMW17D-WQFB01-2305W2		<i>5/12/23</i>	<i>1130</i>	G	W	N	N	X	<i>3</i>		
AF-RHMW17D-WQFB01-2305W2		<i>5/12/23</i>	<i>1130</i>	G	W	N	N	X	<i>3</i>		
AF-RHMW17D-WQFB01-2305W2		<i>5/12/23</i>	<i>1130</i>	G	W	N	N	X	<i>3</i>		
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I, II, III, IV, Other (specify)				Prelim data (Level 1or2)=see TAT above DoD Stage 4 report standard TAT. AECOM/EQUUS/FDD.				Special Instructions/QC Requirements DOD QSM project			
Empty Kit Relinquished by:				Date		Time		Method of Shipment:			
Relinquished by: <i>Andy Young</i>		Date/Time: <i>5/12/23 1445</i>		Company: AECOM		Received by: <i>Alex Edmond</i>		Date/Time: <i>5/12/23 1445</i>		Company: AECOM	
Relinquished by: <i>Alex Edmond</i>		Date/Time: <i>5/13/23 1300</i>		Company: AECOM		Received by: <i>Alex Edmond</i>		Date/Time: <i>5/13/23 1025</i>		Company: AECOM	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No				Cooler Temperature(s) °C and Other Remarks: <i>3/12.9</i>			

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-127341-1

Login Number: 127341

List Number: 2

Creator: Johnson, Corey M

List Source: Eurofins Savannah

List Creation: 05/18/23 04:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	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	
Is the Field Sampler's name present on COC?	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	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

