



ANALYTICAL REPORT

PREPARED FOR

Attn: Terri Choy
AECOM
1001 Bishop Street
Honolulu, Hawaii 96813
Generated 6/15/2023 3:00:22 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-127965-1

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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Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Definitions	5
Client Sample Results	6
QC Sample Results	11
Chronicle	13
Certification Summary	14
Sample Summary	15
Chain of Custody	16
Receipt Checklists	19

Case Narrative

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

Job ID: 580-127965-1

Job ID: 580-127965-1

Laboratory: Eurofins Seattle

Narrative

CASE NARRATIVE

Client: AECOM
Project: Red Hill - AFFF Assessment Sampling
Report Number: 580-127965-1

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 6/6/2023 4:30 PM. 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 4.0° 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-2305W5 (580-127965-1), AF-RHMW17D-WGN01LF-2305W5 (580-127965-2), AF-RHMW17D-WQFB01-2305W5 (580-127965-3), AF-RHMW17S-WGN01LF-2305W5 (580-127965-4) and AF-RHMW17S-WQEB01-2305W5 (580-127965-5) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 06/08/2023 and 06/14/2023.

The continuing calibration verification (CCV) associated with batch 680-783204 recovered above the upper control limit for 2-(2-Butoxyethoxy)ethanol. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

The continuing calibration verification (CCV) associated with batch 680-783636 recovered above the upper control limit for 2-(2-Butoxyethoxy)ethanol. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

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

Definitions/Glossary

Client: AECOM

Job ID: 580-127965-1

Project/Site: Red Hill - AFFF Assessment Sampling

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
Q	One or more quality control criteria failed.
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: 580-127965-1

Client Sample ID: AF-RHMW17-WGN01LF-2305W5

Lab Sample ID: 580-127965-1

Date Collected: 06/02/23 12:40

Matrix: Water

Date Received: 06/06/23 16:30

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			06/08/23 00:40	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

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

Job ID: 580-127965-1

Client Sample ID: AF-RHMW17D-WGN01LF-2305W5

Lab Sample ID: 580-127965-2

Date Collected: 06/02/23 10:30

Matrix: Water

Date Received: 06/06/23 16:30

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			06/08/23 01:03	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

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

Job ID: 580-127965-1

Client Sample ID: AF-RHMW17D-WQFB01-2305W5

Lab Sample ID: 580-127965-3

Date Collected: 06/02/23 10:20

Matrix: Water

Date Received: 06/06/23 16:30

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			06/08/23 01:26	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

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

Job ID: 580-127965-1

Client Sample ID: AF-RHMW17S-WGN01LF-2305W5

Lab Sample ID: 580-127965-4

Date Collected: 06/02/23 09:20

Matrix: Water

Date Received: 06/06/23 16:30

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 Q	5.0	1.1	mg/L			06/14/23 19:57	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

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

Job ID: 580-127965-1

Client Sample ID: AF-RHMW17S-WQEB01-2305W5

Lab Sample ID: 580-127965-5

Date Collected: 06/02/23 10:00

Matrix: Water

Date Received: 06/06/23 16:30

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 Q	5.0	1.1	mg/L			06/14/23 02:24	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

QC Sample Results

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

Job ID: 580-127965-1

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

Lab Sample ID: MB 680-782368/9
Matrix: Water
Analysis Batch: 782368

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			06/07/23 14:34	1

Lab Sample ID: LCS 680-782368/1005
Matrix: Water
Analysis Batch: 782368

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	18.5		mg/L		92	50 - 150

Lab Sample ID: LCSD 680-782368/6
Matrix: Water
Analysis Batch: 782368

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	19.4		mg/L		97	50 - 150	5	50

Lab Sample ID: 580-127965-3 MS
Matrix: Water
Analysis Batch: 782368

Client Sample ID: AF-RHMW17D-WQFB01-2305W5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	3.0	U	20.0	18.3		mg/L		91	50 - 150

Lab Sample ID: 580-127965-3 MSD
Matrix: Water
Analysis Batch: 782368

Client Sample ID: AF-RHMW17D-WQFB01-2305W5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	3.0	U	20.0	16.4		mg/L		82	50 - 150	11	50

Lab Sample ID: MB 680-783204/10
Matrix: Water
Analysis Batch: 783204

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			06/13/23 19:49	1

Lab Sample ID: LCS 680-783204/5
Matrix: Water
Analysis Batch: 783204

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	21.7		mg/L		109	50 - 150

Lab Sample ID: LCSD 680-783204/6
Matrix: Water
Analysis Batch: 783204

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	22.4		mg/L		112	50 - 150	3	50

Eurofins Seattle

QC Sample Results

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

Job ID: 580-127965-1

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

Lab Sample ID: MB 680-783636/9
Matrix: Water
Analysis Batch: 783636

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	-		06/14/23 18:01	1

Lab Sample ID: LCS 680-783636/1005
Matrix: Water
Analysis Batch: 783636

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	26.9		mg/L	-	134	50 - 150

Lab Sample ID: LCSD 680-783636/6
Matrix: Water
Analysis Batch: 783636

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	20.0		mg/L	-	100	50 - 150	29	50

Lab Chronicle

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

Job ID: 580-127965-1

Client Sample ID: AF-RHMW17-WGN01LF-2305W5

Lab Sample ID: 580-127965-1

Date Collected: 06/02/23 12:40

Matrix: Water

Date Received: 06/06/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	782368	DBM	EET SAV	06/08/23 00:40

Client Sample ID: AF-RHMW17D-WGN01LF-2305W5

Lab Sample ID: 580-127965-2

Date Collected: 06/02/23 10:30

Matrix: Water

Date Received: 06/06/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	782368	DBM	EET SAV	06/08/23 01:03

Client Sample ID: AF-RHMW17D-WQFB01-2305W5

Lab Sample ID: 580-127965-3

Date Collected: 06/02/23 10:20

Matrix: Water

Date Received: 06/06/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	782368	DBM	EET SAV	06/08/23 01:26

Client Sample ID: AF-RHMW17S-WGN01LF-2305W5

Lab Sample ID: 580-127965-4

Date Collected: 06/02/23 09:20

Matrix: Water

Date Received: 06/06/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	783636	DBM	EET SAV	06/14/23 19:57

Client Sample ID: AF-RHMW17S-WQEB01-2305W5

Lab Sample ID: 580-127965-5

Date Collected: 06/02/23 10:00

Matrix: Water

Date Received: 06/06/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	783204	DBM	EET SAV	06/14/23 02:24

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: 580-127965-1

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Sample Summary

Client: AECOM

Job ID: 580-127965-1

Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-127965-1	AF-RHMW17-WGN01LF-2305W5	Water	06/02/23 12:40	06/06/23 16:30
580-127965-2	AF-RHMW17D-WGN01LF-2305W5	Water	06/02/23 10:30	06/06/23 16:30
580-127965-3	AF-RHMW17D-WQFB01-2305W5	Water	06/02/23 10:20	06/06/23 16:30
580-127965-4	AF-RHMW17S-WGN01LF-2305W5	Water	06/02/23 09:20	06/06/23 16:30
580-127965-5	AF-RHMW17S-WQEB01-2305W5	Water	06/02/23 10:00	06/06/23 16:30

- 1
- 2
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- 4
- 5
- 6
- 7
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- 9
- 10
- 11

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

Chain of Custody Record

eurofins | Environment Testing
 America

Write on AWC OIL - 11286080

Client Information		Sampler <i>Anthony Laycock AL</i>		Lab PM: Elaine Walker		Carrier Tracking No(s) FeDEX		COC No: 2305W5AFE10																							
Client Contact:		Phone <i>206-450-7820</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		<table border="1"> <tr> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">Field Filtered Sample (Yes or No)</td> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">Perform MS/MSD (Yes or No)</td> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol</td> <td colspan="6" rowspan="5" style="text-align: center; vertical-align: middle;"> </td> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Number of containers</td> <td colspan="2" rowspan="5"> 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: </td> </tr> <tr> <td colspan="2">TAT Requested (days) Rush - 5 Day</td> </tr> <tr> <td colspan="2">Compliance Project. Δ Yes Δ No</td> </tr> <tr> <td colspan="2">PO #</td> </tr> <tr> <td colspan="2">WO #</td> </tr> </table>						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol							Total Number of containers	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:		TAT Requested (days) Rush - 5 Day		Compliance Project. Δ Yes Δ No		PO #		WO #			
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol																				Total Number of containers	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:								
																									TAT Requested (days) Rush - 5 Day						
																									Compliance Project. Δ Yes Δ No						
																									PO #						
									WO #																						
City Honolulu		Compliance Project. Δ Yes Δ No																													
State Zip: Hawaii 96813		PO #																													
Phone: 808-954-4512 / 770-331-0794		WO #																													
Email Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)		Project # 60697810																													
Project Name: CTO N6274223F0104		SSOW#:																													
Site RHSF																															
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Preservation Code.		Special Instructions/Note:																			
		<i>6/2/23</i>		<i>1240</i>		G		W		N N X		3																			
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 FDD.				Special Instructions/QC Requirements DOD QSM project																							
Empty Kit Relinquished by:		Date		Time		Method of Shipment.																									
Relinquished by: <i>Anthony Laycock AL AECOM</i>		Date/Time <i>6/2/23 1520</i>		Company AECOM		Received by: <i>Miranda DeGarmo</i>		Date/Time <i>6/2/23 1520</i>		Company AECOM																					
Relinquished by: <i>Miranda DeGarmo</i>		Date/Time <i>6/5/23 1531</i>		Company <i>AECOM</i>		Received by: <i>[Signature]</i>		Date/Time <i>6/6/23 1630</i>		Company																					
Relinquished by:		Date/Time:		Company		Received by:		Date/Time		Company																					
Custody Seals Intact Δ Yes Δ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks <i>4.2/4.0</i>																											

Ver 01/16/2019

Chain of Custody Record

United AMP 016-17286083

Client Information			Sampler: <i>Andy Young</i>		Lab PM: Elaine Walker		Carrier Tracking No(s) FedEx		COC No: 2305W5AFE11											
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="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p>Analysis Requested</p> <p><i>MS/MSD</i></p> <p><i>6/12/23</i></p> </div>						Preservation Codes									
City: Honolulu			TAT Requested (days): Rush - 5 Day								Preservation Codes									
State Zip: Hawaii 96813			Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No								Preservation Codes									
Phone: 808-954-4512 / 770-331-0794			PO #:								Preservation Codes									
Email: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)			WO #:								Preservation Codes									
Project Name: CTO N6274223F0104			Project #: 60697810								Preservation Codes									
Site: RHSF			SSOW#:		Preservation Codes															
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:	
			X		X		X		X		X		X		X		X		X	
AF-RHMW17D-WGN01LF-2305W5			6/2/23		1030		G		W		N		N		X		3			
AF-RHMW17D-WQFB01-2305W5			6/2/23		1020		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"/> 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)								
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 ASYJS</i>			Date/Time: <i>6/2/23 1200</i>			Company: AECOM			Received by: <i>Michelle AECOM</i>			Date/Time: <i>6/2/23 1230</i>			Company: AECOM					
Relinquished by: <i>Kelley AECOM</i>			Date/Time: <i>6/5/23 1500</i>			Company: AECOM			Received by: <i>[Signature]</i>			Date/Time: <i>6/6/23 1030</i>			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.														



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

Chain of Custody Record



Water RWB 016-1182650

Client Information			Sampler: <i>AY, BS, AL</i>			Lab PM: Elaine Walker			Carrier Tracking No(s): FedEx			COC No: 2305W5AFE12																																																					
Client Contact:			Phone			E-Mail: M.Elaine.Walker@EurofinsET.com			State of Origin: Hawaii			Page 1 of 1																																																					
Company: AECOM						Analysis Requested						Job #																																																					
Address: 1001 Bishop St. Suite 1600						Due Date Requested: see subcontract						<table border="0"> <tr><td>A</td><td>HCL</td><td>M</td><td>Hexane</td></tr> <tr><td>B</td><td>NaOH</td><td>N</td><td>None</td></tr> <tr><td>C</td><td>Zn Acetate</td><td>O</td><td>AsNaO2</td></tr> <tr><td>D</td><td>Nitric Acid</td><td>P</td><td>Na2O4S</td></tr> <tr><td>E</td><td>NaHSO4</td><td>Q</td><td>Na2SO3</td></tr> <tr><td>F</td><td>MeOH</td><td>R</td><td>Na2S2O3</td></tr> <tr><td>G</td><td>Amchlora</td><td>S</td><td>H2SO4</td></tr> <tr><td>H</td><td>Ascorbic Acid</td><td>T</td><td>TSP Dodecahydrate</td></tr> <tr><td>I</td><td>Ice</td><td>U</td><td>Acetone</td></tr> <tr><td>J</td><td>DI Water</td><td>V</td><td>MCAA</td></tr> <tr><td>K</td><td>EDTA</td><td>W</td><td>pH 4-5</td></tr> <tr><td>L</td><td>EDA</td><td>Z</td><td>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	Amchlora	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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L	EDA	Z	other (specify)																																																														
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: RH5F						SSOW#:																																																											
Sample Identification												Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers		Special Instructions/Note:																																															
		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol		A																																																					
AF-RHMW17S-WGN01LF-2305W5		6/2/23		0920		G W		N N X		N N X		3																																																					
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Empty Kit Relinquished by:						Date:						Time:						Method of Shipment:																																															
Relinquished by: <i>Ben Smith AECOM</i>						Date/Time: <i>6/2/23 1200</i>						Company: AECOM						Received by: <i>[Signature]</i>						Date/Time: <i>6/2/23 1200</i>						Company: <i>AECOM</i>																																			
Relinquished by: <i>- m k l - f j m</i>						Date/Time: <i>6/5/23 1500</i>						Company: AECOM						Received by: <i>[Signature]</i>						Date/Time: <i>6/6/23 1630</i>						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						<i>42/4.0</i>																																															

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-127965-1

Login Number: 127965

List Source: Eurofins Seattle

List Number: 1

Creator: Johnson, Corey M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	