

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

Attn: Terri Choy  
AECOM  
1001 Bishop Street  
Honolulu, Hawaii 96813  
Generated 2/15/2023 4:37:49 PM

**JOB DESCRIPTION**

Red Hill - AFFF Assessment Sampling

**JOB NUMBER**

580-123292-1

## Job Notes

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender and destroy this report immediately. This report shall not be reproduced except in full, without prior express written approval by the laboratory.

The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

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  
Marie Walker, Senior Project Manager  
[M.Elaine.Walker@et.eurofinsus.com](mailto:M.Elaine.Walker@et.eurofinsus.com)  
(253)248-4972



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# Case Narrative

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

Job ID: 580-123292-1

**Job ID: 580-123292-1**

**Laboratory: Eurofins Seattle**

**Narrative**

## CASE NARRATIVE

**Client: AECOM**

**Project: Red Hill - AFFF Assessment Sampling**

**Report Number: 580-123292-1**

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 2/9/2023 12:00 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 5.4° 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-RHMW12A-WGN01LF-2302W1 (580-123292-1), AF-RHMW12A-WGFD01LF-2302W1 (580-123292-2), AF-RHMW16-WGN01LF-2302W1 (580-123292-3), AF-RHMW03-WGN01LF-2302W1 (580-123292-4) and AF-RHMW02-WGN01LF-2302W1 (580-123292-5) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 02/14/2023.**

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

# Definitions/Glossary

Client: AECOM

Job ID: 580-123292-1

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: 580-123292-1

**Client Sample ID: AF-RHMW12A-WGN01LF-2302W1**

**Lab Sample ID: 580-123292-1**

**Date Collected: 02/08/23 09:55**

**Matrix: Water**

**Date Received: 02/09/23 12:00**

**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			02/14/23 05:09	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: 580-123292-1

**Client Sample ID: AF-RHMW12A-WGFD01LF-2302W1**

**Lab Sample ID: 580-123292-2**

**Date Collected: 02/08/23 09:55**

**Matrix: Water**

**Date Received: 02/09/23 12:00**

**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			02/14/23 05:33	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: 580-123292-1

**Client Sample ID: AF-RHMW16-WGN01LF-2302W1**

**Lab Sample ID: 580-123292-3**

**Date Collected: 02/08/23 11:45**

**Matrix: Water**

**Date Received: 02/09/23 12:00**

**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			02/14/23 05:56	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: 580-123292-1

**Client Sample ID: AF-RHMW03-WGN01LF-2302W1**

**Lab Sample ID: 580-123292-4**

**Date Collected: 02/06/23 12:50**

**Matrix: Water**

**Date Received: 02/09/23 12:00**

**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			02/14/23 06:19	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: 580-123292-1

**Client Sample ID: AF-RHMW02-WGN01LF-2302W1**

**Lab Sample ID: 580-123292-5**

Date Collected: 02/06/23 14:20

Matrix: Water

Date Received: 02/09/23 12:00

**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			02/14/23 02:03	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: 580-123292-1

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

**Lab Sample ID: MB 680-763222/10**  
**Matrix: Water**  
**Analysis Batch: 763222**

**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 M	5.0	1.1	mg/L			02/13/23 21:24	1

**Lab Sample ID: LCS 680-763222/6**  
**Matrix: Water**  
**Analysis Batch: 763222**

**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	17.3		mg/L		86	50 - 150

**Lab Sample ID: LCSD 680-763222/7**  
**Matrix: Water**  
**Analysis Batch: 763222**

**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	17.1		mg/L		86	50 - 150	1	50

**Lab Sample ID: 580-123292-5 MS**  
**Matrix: Water**  
**Analysis Batch: 763222**

**Client Sample ID: AF-RHMW02-WGN01LF-2302W1**  
**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 M	20.0	14.7		mg/L		74	50 - 150

**Lab Sample ID: 580-123292-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 763222**

**Client Sample ID: AF-RHMW02-WGN01LF-2302W1**  
**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 M	20.0	15.3		mg/L		77	50 - 150	4	50

# Lab Chronicle

Client: AECOM

Job ID: 580-123292-1

Project/Site: Red Hill - AFFF Assessment Sampling

**Client Sample ID: AF-RHMW12A-WGN01LF-2302W1**

**Lab Sample ID: 580-123292-1**

**Date Collected: 02/08/23 09:55**

**Matrix: Water**

**Date Received: 02/09/23 12:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	763222	GEM	EET SAV	02/14/23 05:09

**Client Sample ID: AF-RHMW12A-WGFD01LF-2302W1**

**Lab Sample ID: 580-123292-2**

**Date Collected: 02/08/23 09:55**

**Matrix: Water**

**Date Received: 02/09/23 12:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	763222	GEM	EET SAV	02/14/23 05:33

**Client Sample ID: AF-RHMW16-WGN01LF-2302W1**

**Lab Sample ID: 580-123292-3**

**Date Collected: 02/08/23 11:45**

**Matrix: Water**

**Date Received: 02/09/23 12:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	763222	GEM	EET SAV	02/14/23 05:56

**Client Sample ID: AF-RHMW03-WGN01LF-2302W1**

**Lab Sample ID: 580-123292-4**

**Date Collected: 02/06/23 12:50**

**Matrix: Water**

**Date Received: 02/09/23 12:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	763222	GEM	EET SAV	02/14/23 06:19

**Client Sample ID: AF-RHMW02-WGN01LF-2302W1**

**Lab Sample ID: 580-123292-5**

**Date Collected: 02/06/23 14:20**

**Matrix: Water**

**Date Received: 02/09/23 12:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	763222	GEM	EET SAV	02/14/23 02:03

**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: 580-123292-1

## 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: 580-123292-1

Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-123292-1	AF-RHMW12A-WGN01LF-2302W1	Water	02/08/23 09:55	02/09/23 12:00
580-123292-2	AF-RHMW12A-WGFD01LF-2302W1	Water	02/08/23 09:55	02/09/23 12:00
580-123292-3	AF-RHMW16-WGN01LF-2302W1	Water	02/08/23 11:45	02/09/23 12:00
580-123292-4	AF-RHMW03-WGN01LF-2302W1	Water	02/06/23 12:50	02/09/23 12:00
580-123292-5	AF-RHMW02-WGN01LF-2302W1	Water	02/06/23 14:20	02/09/23 12:00

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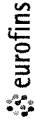
### Chain of Custody Record

<b>Client Information</b> Client Contact: <b>NOAH TURNER</b> Phone: <b>781-306-4777</b> RWSID:		Lab P.M.: Elaine Walker E-Mail: <a href="mailto:M.Elaine.Walker@EurofinsET.com">M.Elaine.Walker@EurofinsET.com</a>		Carrier Tracking No(s): <b>AWB ExEx OIG-115A1773</b> State of Origin: Hawaii Page: Page 1 of 1 Job #:		COC No: 2302W1AFEAO5	
Due Date Requested: see subcontract TAT Requested (days): <b>Rush - ASAP</b> Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: <b>808-954-4512 / 770-331-0794</b> WO #: <b>Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)</b> Project #: <b>60697810</b> SSO#:		<b>Analysis Requested</b> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> <b>8015C_DAL_GL_DS/ 2-(2-butoxyethoxy)-ethanol</b> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Preservation Codes: M - Hexane N - None O - AsHClO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - Other (specify) Z - Other		Total Number of Containers: <b>3</b> Special Instructions/Note:	
<b>Sample Identification</b> Sample Date: <b>2/8/23</b> Sample Time: <b>0955</b> Sample Type (C=comp, G=grab): <b>G</b> Matrix (W=water, S=solid, O=volatile, B=biomass, A=air) Preservation Code: <b>W</b> Sample ID: <b>AF-RHMW12A-WGN01LF-2302W1</b> Sample ID: <b>AF-RHMW12A-WGFD01LF-2302W1</b>		Date: <b>2/8/23</b> Time: <b>0955</b> Date: <b>2/8/23</b> Time: <b>0955</b> Date: <b>2/8/23</b> Time: <b>0955</b>		Date: <b>2/8/23</b> Time: <b>1300</b> Date: <b>02/08/23</b> Time: <b>1400</b> Date:		Date: <b>2/8/23</b> Time: <b>1300</b> Date: <b>02/09/23</b> Time: <b>12:00</b> Date:	
<b>Possible Hazard Identification</b> <input 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		Prelim data (Level 1 or 2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQUIS EDD.		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		Method of Shipment:	
Relinquished by: <b>NOAH TURNER</b> Relinquished by: <b>Miranda Defanno</b> Relinquished by:		Date/Time: <b>2/8/23 1300</b> Date/Time: <b>02/08/23 1400</b> Date/Time:		Date/Time: <b>2/8/23 1300</b> Date/Time: <b>02/09/23 12:00</b> Date/Time:		Date/Time: <b>2/8/23 1300</b> Date/Time: <b>02/09/23 12:00</b> Date/Time:	
Custody Seals Intact: <input checked="" type="checkbox"/> Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:	

5-4/5-4  
c.d.  
AS design



# Chain of Custody Record



<b>Client Information</b> Company: AECOM Address: 1001 Bishop St. Suite 1600 City: Honolulu State, Zip: Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: Watson.Tanji@aecom.com / Mark.Kromis@aecom.com Project Name: CTO N6274223F0104 Site: RHSF		Lab PM: Elaine Walker E-Mail: M.Elaine.Walker@EurofinsET.com PWSID:		Sampler: <b>NOAH TURNER</b> Phone: 781-366-4777		Carrier Tracking No(s): <b>AWB</b> FEDEX 016-11591773 State of Origin: Hawaii		COC No: 2302W1AFEA06 Page: Page 1 of 1 Job #:			
Due Date Requested: see subcontract TAT Requested (days): <b>Rush - ASAP</b> Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: WO #: Project #: 60697810 SSOW#:		Analysis Requested Total Number of Containers: 3 Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - PCAA W - pH 4-5 L - EDTA Z - other (specify) Other:		Special Instructions/Note:		Perform MS/MSD (Yes or No)		Field Filled Sample (Yes or No)		8015C_DAL_GL_DS/ 2-(2-butoxyethoxy)-ethanol	
Sample Identification AF-RHMW16-WGND1LF-2302W1		Sample Date: 2/8/23 Sample Time: 1145 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=swab, B=air):		Preservation Code: A		Total Number of Containers: 3		Special Instructions/Note:		Special Instructions/Note:	
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		Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		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		Special Instructions/QC Requirements: DOD QSM project		Method of Shipment:	
Relinquished by: <b>NOAH TURNER</b> Relinquished by: <b>Miranda DeBarms</b> Relinquished by:		Date/Time: 2/8/2023 / 1306 Date/Time: 2/8/23 / 1400 Date/Time:		Date/Time: 2/8/23 1300 Date/Time: 02/09/23 12:00 Date/Time:		Company: AECOM Company: AECOM Company: AECOM		Cooler Temperature(s) °C and Other Remarks:		Ver: 01/16/2019	





# Chain of Custody Record

**Client Information**  
 Client Contact: Matt Yin  
 Phone: 807-349-4758  
 Company: AECOM  
 Address: 1001 Bishop St. Suite 1600  
 City: Honolulu  
 State, Zip: Hawaii 96813  
 Phone: 808-954-4512 / 770-331-0794  
 Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)  
 Project #: 60697810  
 CTO N6274223F0104  
 Site: RHSF

**Lab/Client Info**  
 Lab P#: Elaine Walker  
 E-Mail: M.Elaine.Walker@EurofinsET.com  
 Carrier Tracking No(s): ANB  
 FedEx: 018-11541313  
 State of Origin: Hawaii  
 SOC No: 2302W1AFEA02  
 Page: Page 1 of 1  
 Job #:

**Analysis Requested**  
 Due Date Requested: see subcontract  
 TAT Requested (days): Rush - ASAP  
 Compliance Project:  Yes  No  
 PO #:   
 WO #:   
 Project #: 60697810  
 SSO#:

Sample Identification	Sample Date	Sample Time (C=Comp, G=grab)	Sample Type (W=water, S=solid, O=water, A=air)	Matrix (W=water, S=solid, O=water, 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-RHMM03-WGN01F-2302W1	2/6/23	1250	G	W	N	N	X	3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify)

**Empty Kit Relinquished by:** \_\_\_\_\_  
 Relinquished by: Matt Yin, Matt Yin  
 Date: 2/6/23 / 1550  
 Company: AECOM

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Special Instructions/QC Requirements: DOD QSM project.

**Received by:** Miranda DeGarmo  
 Date: 2/6/23 / 1550  
 Company: AECOM  
**Received by:** [Signature]  
 Date: 02/09/23 12:00  
 Company:

Cooler Temperature(s) °C and Other Remarks: S-4  
 S-4

Ver: 01/16/2019



# Chain of Custody Record

<b>Client Information</b>			<b>Lab PM:</b> Elaine Walker		<b>Carrier Tracking No(s):</b> ANB 2302W1AFE01 FOCUS OIL - 11541113		<b>COC No:</b> 2302W1AFE01	
Client Contact:			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		TAT Requested (days):		Preservation Codes:	
City: Honolulu			Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Rush - ASAP		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Z - other (specify)	
State, Zip: Hawaii 96813			PO #:		Field Filtered Sample (Yes or No)		Total Number of Containers	
Phone: 808-954-4512 / 770-331-0794			WO #:		Perform MS/MSD (Yes or No)		Special Instructions/Note:	
Email: Watson.Tanji@aeacom.com / Mark.Kromis@aeacom.com			Project #:		801SC_DMI_GL_05/2-(2-butoxyethoxy)-ethanol		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
Site: RHSF			SSON#: 60697810		Sample Date		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month )	
Sample Identification			Sample Time		Sample Date		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab	
AF-RHMW02-WGN01LF-2302W1			1420		2/6/23		Archive For: _____ Months	
Special Instructions/Note:			Sample Type (C=comp, G=grab)		Preservation Code:		Special Instructions/QC Requirements: DOD QSM project.	
AF-RHMW02-WGN01LF-2302W1			G		W		<input type="checkbox"/> Radiological <input type="checkbox"/> Poison B <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Flammable <input type="checkbox"/> Non-Hazard	
Possible Hazard Identification			Date		Date/Time		Method of Shipment:	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Radiological			2/6/23		1550		Received by: <i>Miranda DeGarmo</i> Date/Time: 2/6/23 1550 Company: AECOM	
Deliverable Requested: I, II, III, IV, Other (specify)			Date		Date/Time		Received by: <i>Miranda DeGarmo</i> Date/Time: 2/7/23 1550 Company: AECOM	
4 report standard TAT: AECOM EQOUS EDD			Date		Date/Time		Received by: <i>Miranda DeGarmo</i> Date/Time: 2/7/23 1550 Company: AECOM	
Empty Kit Relinquished by:			Date		Date/Time		Received by: <i>Miranda DeGarmo</i> Date/Time: 2/7/23 1550 Company: AECOM	
Relinquished by: <i>Matt Kim</i>			Date		Date/Time		Received by: <i>Miranda DeGarmo</i> Date/Time: 2/7/23 1550 Company: AECOM	
Relinquished by: <i>Miranda DeGarmo</i>			Date		Date/Time		Received by: <i>Miranda DeGarmo</i> Date/Time: 2/7/23 1550 Company: AECOM	
Relinquished by:			Date		Date/Time		Received by: <i>Miranda DeGarmo</i> Date/Time: 2/7/23 1550 Company: AECOM	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks: S-4 S-4	
Ver: 01/16/2019								

# Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-123292-1

**Login Number: 123292**

**List Number: 2**

**Creator: Meincke, Griffin E**

**List Source: Eurofins Savannah**

**List Creation: 02/13/23 12:25 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		