



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Terri Choy  
AECOM  
1001 Bishop Street  
Honolulu, Hawaii 96813  
Generated 4/21/2023 10:03:38 AM

## JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

## JOB NUMBER

580-126083-1

# 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  
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: 580-126083-1

**Job ID: 580-126083-1**

**Laboratory: Eurofins Seattle**

**Narrative**

## CASE NARRATIVE

**Client: AECOM**  
**Project: Red Hill - AFFF Assessment Sampling**  
**Report Number: 580-126083-1**

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**

Three samples were received on 4/15/2023 8:45 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 5.3° 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-2304W2 (580-126083-1), AF-RHMW12A-WGFD01LF-2304W2 (580-126083-2) and AF-RHMW225401-WGN01B-2304W2 (580-126083-3) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI.** The samples were analyzed on 04/18/2023 and 04/19/2023.

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

# Definitions/Glossary

Client: AECOM

Job ID: 580-126083-1

Project/Site: Red Hill - AFFF Assessment Sampling

## Qualifiers

### GC Semi VOA

| Qualifier | Qualifier Description                 |
|-----------|---------------------------------------|
| 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: 580-126083-1

**Client Sample ID: AF-RHMW12A-WGN01LF-2304W2**

**Lab Sample ID: 580-126083-1**

**Date Collected: 04/13/23 12:30**

**Matrix: Water**

**Date Received: 04/15/23 08:45**

**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 |   |          | 04/18/23 23:31 | 1       |

- 1
- 2
- 3
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- 10

# Client Sample Results

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

Job ID: 580-126083-1

**Client Sample ID: AF-RHMW12A-WGFD01LF-2304W2**

**Lab Sample ID: 580-126083-2**

**Date Collected: 04/13/23 12:30**

**Matrix: Water**

**Date Received: 04/15/23 08:45**

**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 |   |          | 04/19/23 00:41 | 1       |

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# Client Sample Results

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

Job ID: 580-126083-1

**Client Sample ID: AF-RHMW225401-WGN01B-2304W2**

**Lab Sample ID: 580-126083-3**

**Date Collected: 04/13/23 09:00**

**Matrix: Water**

**Date Received: 04/15/23 08:45**

**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 |   |          | 04/19/23 01:04 | 1       |

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# QC Sample Results

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

Job ID: 580-126083-1

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

**Lab Sample ID: MB 680-774076/9**  
**Matrix: Water**  
**Analysis Batch: 774076**

**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 |   |          | 04/18/23 20:25 | 1       |

**Lab Sample ID: LCS 680-774076/5**  
**Matrix: Water**  
**Analysis Batch: 774076**

**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        | 23.1       |               | mg/L |   | 115  | 50 - 150    |

**Lab Sample ID: LCSD 680-774076/6**  
**Matrix: Water**  
**Analysis Batch: 774076**

**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        | 20.9        |                | mg/L |   | 105  | 50 - 150    | 10  | 50        |

**Lab Sample ID: 580-126083-1 MS**  
**Matrix: Water**  
**Analysis Batch: 774076**

**Client Sample ID: AF-RHMW12A-WGN01LF-2304W2**  
**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        | 18.2      |              | mg/L |   | 91   | 50 - 150    |

**Lab Sample ID: 580-126083-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 774076**

**Client Sample ID: AF-RHMW12A-WGN01LF-2304W2**  
**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        | 21.2       |               | mg/L |   | 106  | 50 - 150    | 15  | 50        |

# Lab Chronicle

Client: AECOM

Job ID: 580-126083-1

Project/Site: Red Hill - AFFF Assessment Sampling

**Client Sample ID: AF-RHMW12A-WGN01LF-2304W2**

**Lab Sample ID: 580-126083-1**

**Date Collected: 04/13/23 12:30**

**Matrix: Water**

**Date Received: 04/15/23 08:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Analysis   | 8015C GLY    |     | 1               | 774076       | GEM     | EET SAV | 04/18/23 23:31       |

**Client Sample ID: AF-RHMW12A-WGFD01LF-2304W2**

**Lab Sample ID: 580-126083-2**

**Date Collected: 04/13/23 12:30**

**Matrix: Water**

**Date Received: 04/15/23 08:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Analysis   | 8015C GLY    |     | 1               | 774076       | GEM     | EET SAV | 04/19/23 00:41       |

**Client Sample ID: AF-RHMW225401-WGN01B-2304W2**

**Lab Sample ID: 580-126083-3**

**Date Collected: 04/13/23 09:00**

**Matrix: Water**

**Date Received: 04/15/23 08:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Analysis   | 8015C GLY    |     | 1               | 774076       | GEM     | EET SAV | 04/19/23 01:04       |

**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: 580-126083-1

## 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: 580-126083-1

Project/Site: Red Hill - AFFF Assessment Sampling

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| Lab Sample ID | Client Sample ID            | Matrix | Collected      | Received       |
|---------------|-----------------------------|--------|----------------|----------------|
| 580-126083-1  | AF-RHMW12A-WGN01LF-2304W2   | Water  | 04/13/23 12:30 | 04/15/23 08:45 |
| 580-126083-2  | AF-RHMW12A-WGFD01LF-2304W2  | Water  | 04/13/23 12:30 | 04/15/23 08:45 |
| 580-126083-3  | AF-RHMW225401-WGN01B-2304W2 | Water  | 04/13/23 09:00 | 04/15/23 08:45 |

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# Chain of Custody Record

|  |  |   |  |   |  |   |  |
|--|--|---|--|---|--|---|--|
| <b>Client Information</b><br>Client Contact: <u>Raymond Stelmach</u><br>Phone: <u>206-393-6607</u><br>E-Mail: <u>M.Elaine.Walker@EurofinsET.com</u>  |  | Lab PIV: <u>Elaine Walker</u><br>E-Mail: <u>M.Elaine.Walker@EurofinsET.com</u>                    |  | Carrier Tracking No(s): <u>FedEx</u><br>State of Origin: <u>Hawaii</u>  |  | COC No: <u>2304W2AFE05</u><br>Page: <u>Page 1 of 1</u><br>Job #:  |  |
| Due Date Requested: <u>see subcontract</u><br>TAT Requested (days): <u>Rush - About 5 - DAY</u>  |  | Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No           |  | PWSID:  |  | Preservation Codes:<br>A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA<br>Other: |  |
| Address: <u>1001 Bishop St. Suite 1600</u><br>City: <u>Honolulu</u><br>State, Zip: <u>Hawaii 96813</u><br>Phone: <u>808-954-4512 / 770-331-0794</u><br>Email: <u>Watson.Tanji@aeacom.com / Mark.Kromis@aeacom.com</u>                                    |  | Project #: <u>60697810</u><br>SOW#:   |  | Matrix (Residue, Swab, Other):<br>Preservation Code:  |  | Special Instructions/Note:  |  |
| Project Name: <u>CTO N6274223F0104</u><br>Site: <u>RHSF</u>  |  | Sample Date: <u>4/13/23</u><br>Sample Time: <u>1230</u><br>Sample Type (C=Comp, G=grab): <u>G</u> |  | Field Filtered Sample (Yes or No): <u>N</u><br>Perform MS/MSD (Yes or No): <u>N</u>   |  | Total Number of Containers: <u>3</u>  |  |
| AF-RHMW12A-WGN01LF-2304W2  |  | Sample Date: <u>4/13/23</u><br>Sample Time: <u>1230</u><br>Sample Type (C=Comp, G=grab): <u>G</u> |  | Field Filtered Sample (Yes or No): <u>N</u><br>Perform MS/MSD (Yes or No): <u>N</u>   |  | Total Number of Containers: <u>3</u>  |  |
| AF-RHMW12A-WGFD01LF-2304W2   |  | Sample Date: <u>4/13/23</u><br>Sample Time: <u>1230</u><br>Sample Type (C=Comp, G=grab): <u>G</u> |  | Field Filtered Sample (Yes or No): <u>N</u><br>Perform MS/MSD (Yes or No): <u>N</u>   |  | Total Number of Containers: <u>3</u>  |  |
| Possible Hazard Identification<br><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 |  | Deliverable Requested: <input type="checkbox"/> I, II, III, IV, Other (specify)                   |  | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)<br><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months |  | Prelim data (Level 1 or 2) = see TAT above. DoD Stage 4 report standard TAT. AECOM EQulS EDD.   |  |
| Empty Kit Relinquished by: <u>Alex Edmonds</u><br>Relinquished by: <u>Alex Edmonds</u><br>Relinquished by:   |  | Date: <u>4/13/23</u><br>Date/Time: <u>1330</u><br>Date/Time: <u>4/13/23 1345</u>                  |  | Date/Time: <u>4/13/23 1330</u><br>Date/Time: <u>8:43</u>  |  | Method of Shipment: _____<br>Date/Time: _____<br>Date/Time: _____<br>Date/Time: _____   |  |
| Custody Seals Intact: <input checked="" type="checkbox"/> Custody Seal No.:  |  | Cooler Temperature(s) °C and Other Remarks:   |  | Received by: <u>Alex Edmonds</u><br>Received by: <u>Alex Edmonds</u><br>Received by:  |  | Company: _____<br>Company: _____<br>Company: _____  |  |

Ver: 01/16/2019

S.B/S.C



# Chain of Custody Record

| <b>Client Information</b>   |             | Lab PIV: Elaine Walker   |                              | Camer Tracking No(s):  |   | COC No: 2304W2AFE07 |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
|---|-------------|--|------------------------------|--|---|---------------------|---|---|-----------------------------------|----------------------------|--|---|-----------------------------------|----------------------------|--|----------------------------|----------------------------|-----------------------------|---------|------|---|---|---|---|---|---|--|
| Client Contact:   |             | Phone: 804-873-8525  |                              | FedEx  |   | Page: 1 of 1        |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| Company: AECOM  |             | E-Mail: M.Elaine.Walker@EurofinsET.com                                       |                              | State of Origin: Hawaii  |   | Job #:              |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| Address: 1001 Bishop St. Suite 1600   |             | Due Date Requested: See subcontract  |                              | <b>Analysis Requested</b>  |   |                     |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| City: Honolulu  |             | TAT Requested (days): Rush - ASAP 5-DAY                                      |                              |  |   |                     |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| State, Zip: Hawaii 96813  |             | Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No |                              | <table border="1"> <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, S=solid, O=soil, B=biomass, A=air)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>8015c_DAI_GL_DS/2-(2-butoxyethoxy)-ethanol</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> <tr> <td>AF-RHMW225401-WGN01B-2304W2</td> <td>4/13/23</td> <td>0900</td> <td>G</td> <td>W</td> <td>N</td> <td>N</td> <td>X</td> <td>3</td> <td></td> </tr> </table> |   |                     |   | Sample Identification                               | Sample Date                       | Sample Time                | Sample Type (C=Comp, G=grab)               | Matrix (W=water, S=solid, O=soil, B=biomass, A=air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8015c_DAI_GL_DS/2-(2-butoxyethoxy)-ethanol | Total Number of Containers | Special Instructions/Note: | AF-RHMW225401-WGN01B-2304W2 | 4/13/23 | 0900 | G | W | N | N | X | 3 |  |
| Sample Identification   | Sample Date | Sample Time  | Sample Type (C=Comp, G=grab) |  |   |                     |   | Matrix (W=water, S=solid, O=soil, B=biomass, A=air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8015c_DAI_GL_DS/2-(2-butoxyethoxy)-ethanol | Total Number of Containers                          | Special Instructions/Note:        |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| AF-RHMW225401-WGN01B-2304W2   | 4/13/23     | 0900   | G                            | W  | N | N                   | X | 3   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| Phone: 808-954-4512 / 770-331-0794  |             | FO #:  |                              |  |   |                     |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com)  |             | WO #:  |                              |  |   |                     |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| Project Name: CTO N6274223F0104   |             | Project #: 60697810  |                              |  |   |                     |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| Site: RH5F  |             | SSOW#:   |                              |  |   |                     |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| <p><b>Possible Hazard Identification</b></p> <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<br>Deliverable Requested: I, II, III, IV, Other (specify) |             |  |                              |  |   |                     |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| <p><b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b></p> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months<br>Special Instructions/QC Requirements: DOD QSM project.                              |             |  |                              |  |   |                     |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| <p><b>Empty Kit Relinquished by:</b></p> Date/Time: 4/13/23 1330 Company: AECOM<br>Relinquished by: Alex Edwards<br>Date/Time: 4/13/23 1345 Company: AECOM<br>Relinquished by:  |             |  |                              |  |   |                     |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |
| <p><b>Custody Seals Intact:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No<br/>         Custody Seal No.: 5-9/59<br/>         Cooler Temperature(s) °C and Other Remarks:       </p>  |             |  |                              |  |   |                     |   |   |                                   |                            |  |   |                                   |                            |  |                            |                            |                             |         |      |   |   |   |   |   |   |  |







# Chain of Custody Record

|   |  |   |  |   |  |   |  |   |  |
|---|--|---|--|---|--|---|--|---|--|
| <b>Client Information</b>   |  | Sampler: <i>1st fast</i>  |  | Lab Pkt: Elaine Walker  |  | Carrier Tracking No(s): FedEx   |  | COC No: 2304W2AFE07                               |  |
| Client Contact:   |  | Phone: <i>206-7-7000</i>  |  | E-Mail: M.Elaine.Walker@EurofinsET.com                                    |  | State of Origin: Hawaii   |  | Page: 1 of 1                                      |  |
| Company: AECOM  |  | PWSID   |  | Analysis Requested  |  | Job #:  |  | Preservation Codes:                               |  |
| Address: 1001 Bishop St. Suite 1600   |  | Due Date Requested: see subcontract   |  | Perform MS/MSD (Yes or No)  |  | Total Number of Containers  |  | M - Hexane  |  |
| City: Honolulu  |  | TAT Requested (days): <i>04/21/23 GA</i>  |  | Field Filled Sample (Yes or No)   |  | 8015C_DAL_GL_DS/2-(2-butoxylethoxy)-ethanol   |  | A - HCL   |  |
| State, Zip: Hawaii 96813  |  | Compliance Project: <i>Rush - ABAP S-DAY</i>  |  | Sample Date   |  | Sample Time   |  | N - None  |  |
| Phone: 808-954-4512 / 770-331-0794  |  | PO #: <i>60697810</i>   |  | Sample Type (C=Comp, G=grab)  |  | Preservation Code:  |  | O - AsNaO2  |  |
| Email: Watson.Tanji@aecom.com / Mark.Kromis@aecom.com                                     |  | WO #:   |  | Matrix (W=water, S=solid, O=water/oil, B=tissue, A=air)                   |  | Sample Date   |  | P - Na2OAS  |  |
| Project Name: CTO N6274223F0104   |  | Project #: 60697810   |  | Sample Time   |  | Sample Date   |  | Q - Na2SO3  |  |
| Site: RHSF  |  | SSOW#:  |  | Sample Date   |  | Sample Time   |  | R - Na2S2O3                                       |  |
| Sample Identification   |  | AF-RHMW225401-WGN01B-2304W2   |  | Sample Date   |  | Sample Time   |  | S - H2SO4   |  |
| Possible Hazard Identification  |  | <input checked="" type="checkbox"/> Non-Hazard<br><input type="checkbox"/> Flammable<br><input type="checkbox"/> Skin Irritant<br><input type="checkbox"/> Poison B |  | <input type="checkbox"/> Unknown<br><input type="checkbox"/> Radiological |  | <input type="checkbox"/> Return To Client<br><input type="checkbox"/> Disposal By Lab |  | <input type="checkbox"/> Archive For _____ Months |  |
| Deliverable Requested I, II, III, IV Other (specify)                                      |  | Prelim data (Level 1 or 2)-see TAT above DoD Stage 4 report standard IAT_AECOM.EQUIS.FDD.   |  | Date/Time: <i>12:45 1330</i>  |  | Date/Time: <i>4/13/23 3:50</i>  |  | Company: <i>AIE</i>                               |  |
| Empty Kit Relinquished by   |  | Relinquished by   |  | Date/Time: <i>4/13/23 1330</i>  |  | Date/Time: <i>4/13/23 3:50</i>  |  | Company: <i>AIE</i>                               |  |
| Relinquished by   |  | Relinquished by   |  | Date/Time: <i>4/13/23 1330</i>  |  | Date/Time: <i>4/13/23 3:50</i>  |  | Company: <i>AIE</i>                               |  |
| Relinquished by   |  | Relinquished by   |  | Date/Time: <i>4/13/23 1330</i>  |  | Date/Time: <i>4/13/23 3:50</i>  |  | Company: <i>AIE</i>                               |  |
| Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |  | Custody Seal No   |  | Cooler Temperature(s) °C and Other Remarks: <i>5-9/5.9</i>                |  | Date/Time: <i>4/13/23 3:50</i>  |  | Company: <i>AIE</i>                               |  |





Eurofins Savannah Triage Checklist

Date: 4/15/23

Time: 08:45 am

Checked By: \_\_\_\_\_

Number of Coolers: 1

Cooler Type: Hard Styrofoam Box

Ice Type: Wet Dry GelPack None Other

Received Via: Fed-Ex (SAT) UPS ( ) Bus  
Client Drop Off US Mail Courier  
BlueStreak Dash Other

Courier Tracking Number: \_\_\_\_\_

Client: ARCOM

Thermometer ID: CUIR-32

Uncorrected Cooler Temps (°C): 5.3

Correction Factor: 0.6

Corrected Cooler Temps (°C): 5.9

Other/ Comments:  
\_\_\_\_\_  
\_\_\_\_\_

Foreign soil – Yes / No



**Chain of Custody Record**

|  |                             |   |  |  |                                       |
|--|-----------------------------|---|--|--|---------------------------------------|
| <b>Client Information</b>  |                             | Lab PIV: Elaine Walker  |  | Carrier Tracking No(s): 2304WZAFE05  |                                       |
| Client Contact: <i>Raymond Sullivan</i>  |                             | E-Mail: M.Elaine.Walker@EurofinsET.com  |  | FedEx State of Origin: Hawaii  |                                       |
| Company: AECOM   |                             | PWSID:  |  | Page: Page 1 of 1  |                                       |
| Address: 1001 Bishop St. Suite 1600  |                             | Due Date Requested: see subcontract   |  | Job #:   |                                       |
| City: Honolulu   |                             | TAT Requested (days): <i>Rush - About 5-DAY</i>   |  | Preservation Codes:<br>M - Hexane<br>N - None<br>O - AsNaO2<br>P - Na2O4S<br>Q - Na2SO3<br>R - Na2SO4<br>S - H2SO4<br>T - TSP Dodecahydrate<br>U - Acetone<br>V - MCAA<br>W - pH 4-5<br>X - EDTA<br>Y - EDA<br>Z - other (specify) |                                       |
| State, Zip: Hawaii 96813   |                             | Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  | Total Number of Containers: <i>3</i>   |                                       |
| Phone: 808-954-4512 / 770-331-0794   |                             | PO #:   |  | Special Instructions/Note:   |                                       |
| Email: Watson.Tanji@aeacom.com / Mark.Kromis@aeacom.com  |                             | WO #:   |  | 580-126083 Chain of Custody  |                                       |
| Project Name: CTO N6274223F0104  |                             | Project #: 60697810   |  | 8015C_DAL_GL_DS/2-(2-butylhexoxy)-ethanol  |                                       |
| Site: RH5F   |                             | SSOW#:  |  | Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> A   |                                       |
| <b>Sample Identification</b>   |                             | Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> A                 |  | 8015C_DAL_GL_DS/2-(2-butylhexoxy)-ethanol  |                                       |
| AF-RHMMW12A-WGN01LF-2304W2   | Sample Date: <i>4/13/23</i> | Sample Time: <i>12:50</i>   | Sample Type (C=Comp, G=Grab): <i>G</i> | Preservation Code: <i>W</i>  | <input checked="" type="checkbox"/> X |
| AF-RHMMW12A-WGFD01LF-2304W2  | Sample Date: <i>4/13/23</i> | Sample Time: <i>12:50</i>   | Sample Type (C=Comp, G=Grab): <i>G</i> | Preservation Code: <i>W</i>  | <input checked="" type="checkbox"/> X |
| <p><b>Possible Hazard Identification</b><br/> <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</p> <p>Deliverable Requested I II III IV Other (specify) 4 report standard TAT AECOM EQUIS EDD</p> |                             |   |  |  |                                       |
| <p><b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b><br/> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/QC Requirements DOD QSM project.</p>   |                             |   |  |  |                                       |
| <b>Empty Kit Relinquished by:</b> <i>Raymond Sullivan</i>  |                             | <b>Date/Time:</b> <i>4/13/23 13:30</i>  |  | <b>Method of Shipment:</b>   |                                       |
| <b>Relinquished by:</b> <i>Raymond Sullivan</i>  |                             | <b>Date/Time:</b> <i>4/13/23 13:45</i>  |  | <b>Date/Time:</b> <i>4/13/23 8:45</i>  |                                       |
| <b>Relinquished by:</b>  |                             | <b>Date/Time:</b>   |  | <b>Date/Time:</b>  |                                       |
| <b>Custody Seals Intact:</b> <input checked="" type="checkbox"/> Custody Seal No   |                             | <b>Relinquished by:</b>   |  | <b>Date/Time:</b>  |                                       |
| <b>Cooler Temperature(s) °C and Other Remarks:</b> <i>S.B/SY</i>   |                             |   |  |  |                                       |







### Chain of Custody Record

|  |  |  |  |  |  |   |  |  |  |
|--|--|--|--|--|--|---|--|--|--|
| <b>Client Information</b>  |  | Sampler: <u>1104</u> <u>Forest</u>             |  | Lab Pk#: <u>Elaine Walker</u>  |  | Carrier Tracking No(s): <u>FedEx</u>        |  | COC No: <u>2304WZAFE07</u>   |  |
| Client Contact:  |  | Phone: <u>7-2-2-1</u>                          |  | E-Mail: <u>M.Elaine.Walker@EurofinsET.com</u>  |  | State of Origin: <u>Hawaii</u>              |  | Page: <u>1 of 1</u>  |  |
| Company: <u>AECOM</u>  |  | PWSID  |  | Due Date Requested: <u>see subcontract</u>   |  | Analysis Requested                          |  | Job #: _____   |  |
| Address: <u>1001 Bishop St. Suite 1600</u>   |  | TAT Requested (days): <u>Rush - ASAP 5-DAY</u> |  | Compliance Project: <u>Yes</u> <input type="checkbox"/> <u>No</u> <input type="checkbox"/> |  | 8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol  |  | Total Number of containers: <u>3</u>   |  |
| City: <u>Honolulu</u>  |  | State: <u>Zip</u>                              |  | PO #: _____  |  | Field Filtered Sample (Yes or No): <u>X</u> |  | Special Instructions/Note: _____   |  |
| Phone: <u>808-954-4512 / 770-331-0794</u>  |  | Project #: <u>60697810</u>                     |  | SSOW#: _____   |  | Perform MS/MSD (Yes or No): <u>X</u>        |  | Preservation Codes:<br>M - Hexane<br>A - HCL<br>B - NaOH<br>O - AsNaO2<br>P - Na2O4S<br>Q - Na2SO3<br>R - Na2S2O3<br>S - H2SO4<br>T - TSP Dodecahydrate<br>U - Acetone<br>V - MCAA<br>W - pH 4-5<br>L - EDA<br>Z - other (specify)<br>Other: _____ |  |
| Email: <u>Watson.Tanji@aecon.com / Mark.Kromis@aecon.com</u>   |  | Sample Date: <u>1-1-2020</u>                   |  | Sample Time: <u>0900</u>   |  | Matrix: <u>Water</u>                        |  | Preservation Code: <u>W</u>  |  |
| Project Name: <u>CTO N6274223F0104</u>   |  | Sample Type (C=Comp, G=grab): <u>G</u>         |  | Sample Date: _____   |  | Sample Time: _____                          |  | Sample Identification: <u>AF-RHMW225401-WGN01B-2304W2</u>  |  |
| Site: <u>RHSF</u>  |  | Sample Date: _____                             |  | Sample Time: _____   |  | Sample Date: _____                          |  | Sample Identification: _____   |  |
| Possible Hazard Identification:<br><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 Date: _____                             |  | Sample Time: _____   |  | Sample Date: _____                          |  | Sample Identification: _____   |  |
| Deliverable Requested: <u>I II III IV Other (specify)</u>  |  | Sample Date: _____                             |  | Sample Time: _____   |  | Sample Date: _____                          |  | Sample Identification: _____   |  |
| Empty Kit Relinquished by: _____   |  | Sample Date: _____                             |  | Sample Time: _____   |  | Sample Date: _____                          |  | Sample Identification: _____   |  |
| Relinquished by: <u>Alex Eward</u>   |  | Date/Time: <u>1/1/20 1330</u>                  |  | Company: <u>AECOM</u>  |  | Date/Time: <u>1/1/20 1330</u>               |  | Company: <u>AECOM</u>  |  |
| Relinquished by: _____   |  | Date/Time: _____                               |  | Company: _____   |  | Date/Time: _____                            |  | Company: _____   |  |
| Custody Seals Intact: <u>Yes</u> <input type="checkbox"/> <u>No</u> <input type="checkbox"/>   |  | Date/Time: _____                               |  | Company: _____   |  | Date/Time: _____                            |  | Company: _____   |  |
| Custody Seal No: <u>5-9/59</u>   |  | Date/Time: _____                               |  | Company: _____   |  | Date/Time: _____                            |  | Company: _____   |  |
| Cooler Temperature(s) °C and Other Remarks: _____  |  | Date/Time: _____                               |  | Company: _____   |  | Date/Time: _____                            |  | Company: _____   |  |

