11

PREPARED FOR

Attn: Terri Choy AECOM 1001 Bishop Street Honolulu, Hawaii 96813

Generated 10/13/2023 11:50:46 AM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

ANALYTICAL REPORT

JOB NUMBER

580-132501-1

Eurofins Seattle 5755 8th Street East Tacoma WA 98424



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

Generated 10/13/2023 11:50:46 AM

Authorized for release by Tracy Dutton, Client Relations Manager <u>Tracy.Dutton@et.eurofinsus.com</u>

(253)248-4970

2

3

4

5

6

_

9

10

4 -

Client: AECOM

Laboratory Job ID: 580-132501-1

Project/Site: Red Hill - AFFF Assessment Sampling

Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Definitions	5
Client Sample Results	6
QC Sample Results	9
Chronicle	10
Certification Summary	11
Sample Summary	12
Chain of Custody	13
Racaint Chacklists	20

Case Narrative

Client: AECOM Job ID: 580-132501-1

Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-132501-1

Laboratory: Eurofins Seattle

Narrative

CASE NARRATIVE

Client: AECOM
Project: Red Hill - AFFF Assessment Sampling
Report Number: 580-132501-1

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.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs 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

The samples were received on 10/06/2023; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers 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.

2-(2-Butoxyethoxy)ethanol

Samples AF-HDMW225303-WGN01LF-2310 (580-132501-1), AF-RHMW12A-WGN01LF-2310 (580-132501-2) and AF-RHMW12A-WGFD01LF-2310 (580-132501-3) were analyzed for 2-(2-Butoxyethoxy)ethanol in accordance with EPA SW-846 Methoc 8015B - DAI. The samples were analyzed on 10/12/2023.

The continuing calibration verification (CCV) associated with batch 680-802272 recovered outside acceptance criteria, low biased, for 2-(2-Butoxyethoxy)ethanol. A reporting limit (RL) standard was analyzed, and the target analytes were detected. Since the associated samples were non-detect for the analyte, the data has been qualified and reported.

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

2

3

4

5

6

_

q

10

4 .

Definitions/Glossary

Client: AECOM Job ID: 580-132501-1

Project/Site: Red Hill - AFFF Assessment Sampling

Qualifiers

Qualifier

GC Semi VOA

Qualifier Description One or more quality control criteria failed. U Undetected at the Limit of Detection.

Glossary

DL, RA, RE, IN

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC 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 Minimum Level (Dioxin) ML Most Probable Number MPN 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

Practical Quantitation Limit PQL

PRES Presumptive **Quality Control** QC

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) Toxicity Equivalent Quotient (Dioxin) **TEQ**

TNTC Too Numerous To Count

Eurofins Seattle

Page 5 of 20 10/13/2023

Client Sample Results

Client: AECOM Job ID: 580-132501-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-HDMW225303-WGN01LF-2310 Lab Sample ID: 580-132501-1

Date Collected: 10/03/23 10:10 Matrix: Water

Date Received: 10/06/23 12:40

Method: SW846 8015C GLY - G	Slycols- Dire	ct Injection	on (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			10/12/23 16:27	1

4

_

8

9

10

Client Sample Results

Client: AECOM Job ID: 580-132501-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW12A-WGN01LF-2310 Lab Sample ID: 580-132501-2

Date Collected: 10/03/23 12:40 Matrix: Water

Date Received: 10/06/23 12:40

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

Analyte	Result Qualifier	LOQ	DL Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	30 00	5.0	1.1 mg/l			10/12/23 16:50	

A

4

6

8

9

10

Client Sample Results

Client: AECOM Job ID: 580-132501-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW12A-WGFD01LF-2310 Lab Sample ID: 580-132501-3

Date Collected: 10/03/23 12:40 Matrix: Water

Date Received: 10/06/23 12:40

Analyte	Result Q	ualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac	
2-(2-Butoxyethoxy)ethanol	30 U	l O	5.0	11	ma/l			10/12/23 17:13	1	

4

6

8

9

10

QC Sample Results

Client: AECOM Job ID: 580-132501-1

Project/Site: Red Hill - AFFF Assessment Sampling

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

Lab Sample ID: MB 680-802272/8 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 802272

MB MB

Result Qualifier LOQ DL Unit Analyzed Dil Fac Analyte Prepared 5.0 1.1 mg/L 10/12/23 13:16 2-(2-Butoxyethoxy)ethanol 3.0 U

Lab Sample ID: LCS 680-802272/5 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 802272

Spike LCS LCS %Rec Added Result Qualifier D %Rec Limits Unit 20.0 50 - 150 2-(2-Butoxyethoxy)ethanol 21.1 mg/L 106

Lab Sample ID: LCSD 680-802272/6 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water

Analysis Batch: 802272

Spike LCSD LCSD %Rec RPD Added Result Qualifier Limits Analyte Unit %Rec **RPD** Limit 2-(2-Butoxyethoxy)ethanol 20.0 17.9 89 50 - 150 mg/L

Lab Sample ID: 580-132501-1 MS Client Sample ID: AF-HDMW225303-WGN01LF-2310 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 802272

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 2-(2-Butoxyethoxy)ethanol 3.0 U Q 20.0 17.5 mg/L 88 50 - 150

Lab Sample ID: 580-132501-1 MSD Client Sample ID: AF-HDMW225303-WGN01LF-2310

Matrix: Water

Analysis Batch: 802272

MSD MSD RPD Sample Sample Spike %Rec Result Qualifier Added Limits Analyte Result Qualifier Unit %Rec Limit 2-(2-Butoxyethoxy)ethanol 3.0 U Q 20.0 18.4 92 mg/L 50 - 150 50

Eurofins Seattle

Prep Type: Total/NA

Lab Chronicle

Client: AECOM Job ID: 580-132501-1

Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-HDMW225303-WGN01LF-2310

Lab Sample ID: 580-132501-1 **Matrix: Water**

Date Collected: 10/03/23 10:10 Date Received: 10/06/23 12:40

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015C GLY			802272	DBM	EET SAV	10/12/23 16:27

Client Sample ID: AF-RHMW12A-WGN01LF-2310

Lab Sample ID: 580-132501-2 Date Collected: 10/03/23 12:40 **Matrix: Water**

Date Received: 10/06/23 12:40

	Batch	Batch		Dilution	Batch		Prepared
Prep Type	Type	Method	Run	Factor	Number Analyst	Lab	or Analyzed
Total/NA	Analysis	8015C GLY			802272 DBM	EET SAV	10/12/23 16:50

Client Sample ID: AF-RHMW12A-WGFD01LF-2310

Lab Sample ID: 580-132501-3

Date Collected: 10/03/23 12:40 **Matrix: Water**

Date Received: 10/06/23 12:40

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015C GLY		1	802272	DBM	EET SAV	10/12/23 17:13

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM Job ID: 580-132501-1

Project/Site: Red Hill - AFFF Assessment Sampling

Laboratory: Eurofins Savannah

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

Authority	Progra	am	Identification Number	Expiration Date 09-22-24	
ANAB	Dept. o	of Defense ELAP	L2463		
The following analyte	s are included in this repo	rt, but the laboratory is n	not certified by the governing authori	tv. This list may include an	
,	s are included in this repo does not offer certification	•	not certified by the governing authori	ty. This list may include an	
,	•	•	not certified by the governing authori Analyte	ity. This list may include an	

3

4

7

8

10

Sample Summary

Client: AECOM Job ID: 580-132501-1

Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-132501-1	AF-HDMW225303-WGN01LF-2310	Water	10/03/23 10:10	10/06/23 12:40
580-132501-2	AF-RHMW12A-WGN01LF-2310	Water	10/03/23 12:40	10/06/23 12:40
580-132501-3	AF-RHMW12A-WGFD01LF-2310	Water	10/03/23 12:40	10/06/23 12:40

3

4

_

40

Chain of Custody Record

Client Information	Sampler: JV	AA	MG	Lab P Elair	M: ne Walk	er			Carrier Trackin	g No(s):	COC No: 2310AFEA04	
Client Contact:	Phone: (732)		- 995	E-Mai M.El		alker@Eur	rofinsET_c	om '	State of Origin Hawaii		Page: Page 1 of 1	
Company: AECOM			PWSID:				An	alysis Re	quested		Job #:	
Address: 1001 Bishop St. Suite 1600	Due Date Requeste see subcontract									1	Preservation C	
City: Honolulu	TAT Requested (da	ays): Rush - 5	Day				N	12			A - HCL B - NaOH C - Zn Acetate	M - Hexane N - None O - AsNaO2
State, Zip: Hawaii 96813	Compliance Project	it: Δ Yes Δ	\ No			ē		TA.			D - Nitric Acid E - NaHSO4 F - MeOH	P - Na2O4S Q - Na2SO3 R - Na2S2O3
Phone: 808-954-4512 / 770-331-0794	PO#:					y)-ethar	Н	-12			G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	WO #:				or No	yethox		137	<u> </u>		J - DI Water K - EDTA	U - Acetone V - MCAA W - pH 4-5
Project Name: CTO N6274223F0104	Project #: 60697810				(YOS	Sputox			100			Z - other (specify)
Site: RHSF	SSOW#:				ered Sample (Yes or No	DS/ 2-(2					Other:	
Sample Identification	Sample Date	Sample Time		Matrix (W-water, S-solid, O-waste/olf, BT=Tissue, A^Air)	Field Filtered 8 Percom Merin	8015C_DAI_GL_DS/242-butoxyethoxyj-ethanol						nstructions/Note:
		><		tion Code:	XX	A			- 17			
AF-HDMW225303-WGN01LF-2310	10/3/13	1010	G	W	NN	×		++			3	
					H		++					
				4		_	++	+				
		X		13/2	3	\dashv	7	+-+-	- ' ',,,	11 11 11 11 11 11 11 11 11 11 11 11 11	1111 1111 1111 1111 1111	
			12	101	+	$\dashv \dashv$		++-	+			<u> </u>
							++		-			
									5	80-132501 Ch	ain of Custody	
Possible Hazard Identification										amples are retain		
Non-Hazard Flammable Skin Irritant Poison B Deliverable Requested: I, II, III, IV, Other (specify)	Prelim data (Lev	rel 1or2)=se		e. DoD Stan		Return			Disposal By L nts: DOD QS		hive For	Months
	4 report standar			EDD.	Time:					f Shipment:	- 1 42 65	22//
Empty Kit Relinquished by:	Date/Time: 1		205	Company		Received by	:	-		Dato/Time:	red AWB:	974/8366 Company
Avre AFOTA Relinquished by:	Date/Fime:	3	445	AECOM Company		Received by	NONG	Kar	1	[0] 3 Date/Time:	/23	Company
SIMONE RAY	Dete/Time:	123	447	Company		Received by:	111	1		Dato/Tighe: /		Company
						/	///	and Other Re	marke:	10/6/23	1240	
Custody Seal No.: Δ Yes Δ No						Cooler Cerns	orature(s)	and Other Re	merks,	, 3	5.115.4	Ver: 01/16/2019

Eurofins FGS, Seattle

5755 8th Street East Tacoma, WA 98424

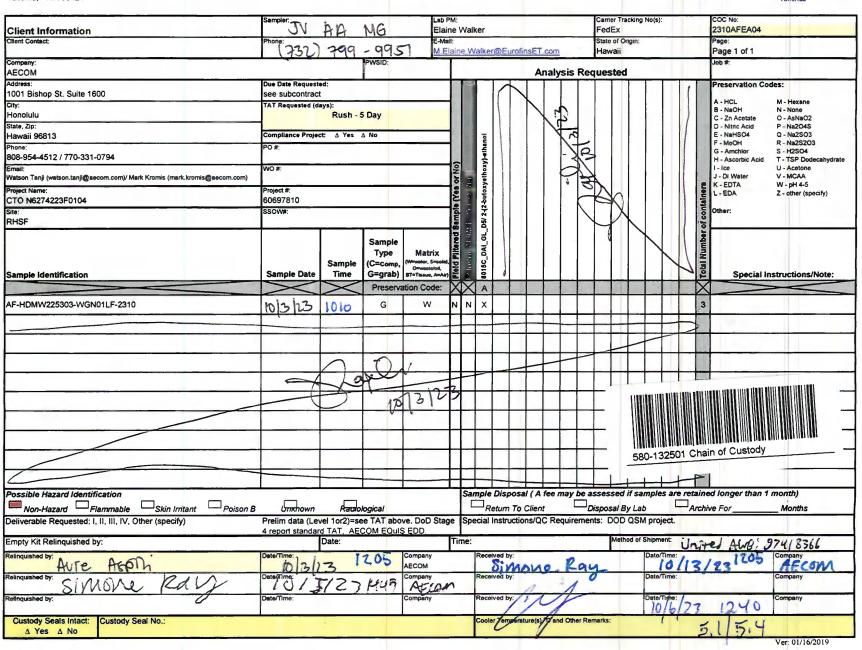
Chain of Custody Record

Client Information	Sampler:	e AKI	ilve	Lab P	M: ne Wa	lker			Carrier Trackin	ng No(s):	COC No: 2310AFEA05	
Client Contact:	Phone:	20.	-0.0	E-Ma	H:				State of Origin	1	Page:	
	133	1799-	7951	M.EI	laine V	Valker	@EurofinsE	T.com	Hawaii		Page 1 of 1	
Company: AECOM			PWSID:					Analysis R	equested	1	Job #:	
Address: 1001 Bishop St. Suite 1600	Due Date Requeste see subcontrac										Preservation Co	odes:
City:	TAT Requested (da						11				A - HCL	M - Hexane
Honolulu		Rush - 5	Day			1		14			B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip:	Comptions Project	to A Ven A	No			I - I	1				D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3
Hawaii 96813 Phone:	Compliance Project	C A res A	NO			e e		(E)	.		F - MeOH	R - Na2S2O3
808-954-4512 / 770-331-0794						2-(2-butoxyethoxy)-ethanol		1/2/	3	1 1 1 11	G - Amchior H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email:	WO #:	-			<u> </u>	Š Š		12	X + 1		I - Ice	U - Acetone
Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)					5 2	1 5 1		1. 1	3		J - DI Water K - EDTA	V - MCAA W - pH 4-5
Project Name: CTO N6274223F0104	Project #: 60697810				mple (Yes or No)	eg	11		12/1		L-EDA	Z - other (specify)
Site:	SSOW#:		_) es	2			\mathcal{K}	/	Other:	
RHSF					am o	DS/ 2			MAC		2	
					Field Filtered Sample (Yes or Pittorn MS/MSD (Yes or No)	3					Other:	
			Sample Type	Matrix	Itere	8015C_DAI_GL					Š	
		Sample	(C=Comp,	(W=water, S=solid,	D F	, S						ŀ
Sample Identification	Sample Date	Time	G=grab)	O=westeloid, BT=Tissue, A=Air)	Fiel	80	1				Special	Instructions/Note:
		> <	Preserva	ation Code:	XX	A			1			
AF-RHMW12A-WGN01LF-2310	106/123	1240	G	w	NN	х					3	
AF-RHMW12A-WGFD01LF-2310	10/2/12	1240	G	w	NN	×					3	
	10/3/13	1410			H	-		+++		+		
						1						
			L		П							
		\frown	0.	1	H			+	+++	1 1 1		
	101	10	A P		1							
	Y	-1	6.	0131	7							
		/	-	01.	H-	+		+++	+++			
Possible Hazard Identification					Sa	mole	Dienoeal (A fee may be	accessed if	samples are retail	ned longer than	1 month)
					~		oroboom ()					· monary
Non-Hazard Flammable Skin Imitant Poison E			logical				tum To Clie		Disposal By L		hive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)	Prelim data (Lev				e Sp	ecial I	nstructions/	QC Requirem	ents: DOD QS	SM project.		
	4 report standar	d IAI. AEC	OW EQUIS	EUU.								
											1 8 · D ·	// -
Empty Kit Relinquished by:	Date/Time:	Date:) 44.	AECOM	Time:	Receiv	red by:	i in		Date/Time: 6 7	130 1811	
TIVIC ASOLA	Date/Time:	1)	440				red by:	1 Must	21	Date/Time:	163 1991	Company
Relinquished by: Eli Mista	(A /5/	23 14	45	Company FTCOM		Kecel	/ / / / / / / / / / / / / / / / / / /	1		Date/Time:		Company
Relinquished by:	Date/Time:	1	,	Company	-	Receiv	ed by	//		Date/Time: /	10.11	Company
							10/	1		10/6/23	1246	
Custody Seals Intact: Custody Seal No.:						Cooley	Temperature(°C and Other F	Remarks:	17		11 01/11/2010
							//			p	1511	Ver: 01/16/2019

Eurofins FGS, Seattle

5755 8th Street East Tacoma, WA 98424

Chain of Custody Record



Chain of Custody Record

Client Information	Sampler: Lab PM: Elaine Walker					Carrier Tracking No(s): FedEx					COC No: 2310AFEA05					
Client Contact:	Phone:	2 1131		E-Ma	ail:						of Ongi	1:		_	Page:	
Samuel Control of the	135	<u> 17799 -</u>	-9951	M.E	laine.V	Valker	@Eurofin	nsET.cor	m	Hav	vaii				Page 1 of 1	
Company: AECOM			PWSID:					Anal	lysis R	eque	sted			4	Job #:	
Address:	Due Date Request				66	3.5	7						11.		Preservation Codes	:
1001 Bishop St. Suite 1600 City:	see subcontract TAT Requested (d		-		ш	ш									A-HCL 1	M - Hexane
Honolulu	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Rush -	Day			ш		11	4		1					N - None O - AsNaO2
State, Zip: Hawaii 96813	Compliance Project	ct: A Yes A	\ No			- E	1		*						D - Nitric Acid F E - NaHSO4	P - Na2O4S Q - Na2SO3
Phone: 808-954-4512 / 770-331-0794	PO #:					-the			-2 1	2					G - Amchior	R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate
Email: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	WO #:				r No)	ethox			P	3					I - ice { J - Di Water }	U - Acetone V - MCAA W - pH 4-5
Project Name: CTO N6274223F0104	Project #: 60697810				(Yes c	-butox)	1			3	K)		afiners	L-EDA Z	Z - other (specify)
Site: RHSF	SSOW#:				Sample (Yes or No)	05/ 2-(2				1				f contain	Other:	
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)		ild Filtered	8015C_DAI_GL_DS/ 2-(2-butoxyethoxy)-ethanol					0			Total Number of		ructions/Note:
		$\geq \leq$	Preserva	ation Code:	\bowtie	A	1-1			1				X		
AF-RHMW12A-WGN01LF-2310	100123	1240	G	W	N N	×								3		
AF-RHMW12A-WGFD01LF-2310	10/3/13	1240	G	w	N N	X								3		
														2		
			-		Ш		_									
	1 of	La	2	-	1											
	X	1	1	10/01	1									1		
					П											
Possible Hazard Identification Non-Hazard Flammable Skin Imitant Poison I Deliverable Requested: I, II, III, IV, Other (specify)	3 Unknown Prelim data (Le		ological ee TAT abo	ve. DoD Stac		Re	Disposal	Client		Dispo	sal By l	.ab			ed longer than 1 m	onth) Months
,	4 report standa															
Empty Kit Relinquished by:		Date:			Time:						Method	of Shipm	ent: 🜙	100	1 150Bi 016-	97014266
Relinquished by: Avice Assorb	Date/Time:		440	AECOM		Receiv	E	11	Must			Date/	Time: //)	13/	123 1440	AECON
Relinquished by: Eli Muth	Date/Time:	23 1	145	AGGM		Receiv	red by:	1	1			Date/	Time:		C	Company
Relinquished by:	Date/Time:	/		Company		Receiv	red by	1				Date/		3	1246	Company
Quistignic Ceals Initiate Constantly Seal No.			1		-	Coole	Temperatu	ure(s)°C a	nd Other F	Remarks:		110	14/	_		
							1							- 1	15.4	/er: 01/16/2019

Chain of Custody Record



Eurofins FGS, Seattle 5755 8th Street East Tacoma. WA 98424		Chain	of Cu	stody F	Rec	ord							💸 eı	ırofins	Environment America	Testing
Client Information	Sampler:	AA	MG	Lab F Elair	PM: ne Wa	iker	_			Carrier Tri	cking No(s):	2310AF	EA04		
Client Information Client Contact:	Phone: (732)		- 993	E-Ma	di:		Eurofin	sFT cor	m	State of O	rigin:		Page: Page 1		117	
Company: AECOM	1 (400		PWSID:							questec		77	Job #:			
Address:	Due Date Reques		_		R.	1	不		JUIGIN	440000	П	1	Preserv	ation Cod	es:	
1001 Bishop St. Suite 1600 City: Honolulu	TAT Requested (c		5 Day		П	Н		N	2				A - HCL B - NaOi C - Zn Ai		M - Hexane N - None O - AsNaO2	
State, Zip: Hawaii 96813	Compliance Proje								4				D - Nitric	Acid	P - Na2O4S Q - Na2SO3	
Phone: 808-954-4512 / 770-331-0794	PO #:	A 143	<u> </u>		Ш	ethano			17				F - MeOl G - Amol	il nior	R - Na2S2O3 S - H2SO4	
Email: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	WO #:				(o)	ethoxy)		-	2				H - Asco I - Ice J - DI Wa	ter	T - TSP Dodect U - Acetone V - MCAA	ahydrate
Project Name: CTO N6274223F0104	Project #: 60697810	=			Yes or	utoxy			1, 5				E K-EDTA		W - pH 4-5 Z - other (speci	ify)
Site: RHSF	SSOW#:				mple (Yes or No	7 2-(2-6					\bigcup		Other:			
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)		Field Filtered S							1	Total Number of	pecial In:	structions/No	ote:
		>		ation Code:	XX	11		-11		1			X			-10"
AF-HDMW225303-WGN01LF-2310	10/3/13	1010	G	W	ИИ	X	-	\vdash	++	++	\vdash		_3			
					#											
					Щ	$\downarrow \downarrow$			$\perp \perp$							
			0	/	Щ											
		10		100		\coprod			$\perp \perp$			1 1		na a ss sii		
			170	13/2	$\mathbb{1}$				$\perp \perp$							
					Ш											
					Ш								III III III III II		iii enteriori con	
					Ш						580-1	32501 C	hain of Cu	istody		
												1	A			
Possible Hazard Identification Non-Hazard Flammable Skin Imitant Poison 8	Umenown						um To (ained longe rchive For_	r than 1 i		
Deliverable Requested: I, II, III, IV, Other (specify)	Prelim data (Le	vei 1or2)=se								Disposal B ents: DOD			rcnive For_		_ Months	
Empty Kit Relinquished by:	4 report standa	rd TAT, AE	COM EQui:	S EDD.	Time:		-			Meth	od of Shipn	nent:	A Lang	d) 9	74/8366	
Rollinguished by: AUTE AROTH	Date/Time:	17	205	Company AECOM		Receive			0 -		Date	/Time:		205	Company	
Relinquished by: SIMONE RAW	Date/Fime:	1/27	1447	Company	pany Received by: Date/Time: Company						V(
Relinquished by:	DeterTime: Company Received by: / DeterTime: /							10	Company							
Custody Seals Intact: Custody Seal No.: Δ Yes Δ No						Cooler	emperatu	110(2)	and Other Re	emarks:	1.70	16/2	411-	5.4		
													2111		Ver: 01/16/20	19

Chain of Custody Record

OF ALGERIA	Sampler:	ه ۷۰ م	. (V	Lab	Pм: ine Wa	lkor				Carrier	Tracking	No(s):			2310AFEA05	
Client Information Client Contact:	Phone:	0 1121	3411	E-M		ikei		+	-		of Origin:	-			Page:	
	1 739	0799-	-9951	<u>M.</u> E	laine.\	Valker	@Eurofii	nsET.co	<u>m</u>	Hawa					Page 1 of 1	
Company: AECOM			PWSID:		1			Ana	lysis Re	quest	ed				Job #:	
Address:	Due Date Requeste	ed:			7	ji I		T	1 1	1		1 1	T		Preservation Codes	s:
1001 Bishop St. Suite 1600	see subcontrac				100										A - HCL	M - Hexane
City: Honolulu	TAT Requested (da	ays): Rush - 5	Day		Ш				4						B - NaOH	N - None O - AsNaO2
State, Zip: Hawaii 96813	Compliance Project	it: Δ Yes Δ	No		-111	5			*			H			D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3
Phone: 808-954-4512 / 770-331-0794	PO #:				28	-ethan			2 6						G - Amchior	R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate
Email: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	WO #:				ON I	ethoxy			0	3					I - Ice J - DI Water	U - Acetone V - MCAA
Project Name: CTO N6274223F0104	Project #: 60697810				Sample (Yes or No	utoxye				2				iners	K - EDTA L - EDA	W - pH 4-5 Z - other (specify)
Site:	SSOW#:				⊣ĕ						X			ar a	Other:	
RHSF					E S	DS/ ;				14	4			5		
	Complete Base	Sample	Sample Type (C=comp,	Matrix (W=water, S=soli O=waste/oil, BT=Tissue, A=Air	Filtered	8015C_DAL_GL_D5/2-{2-butoxyethoxy}-ethanol					7			Total Number of containers		· · · · · · · · · · · · · · · · · · ·
Sample Identification	Sample Date	Time		ation Code:		A		1000	CO CO					*	Special Inst	tructions/Note:
AE DUMMAGOA MICNOSTE 2240	in him	11110	G	w	N		-		65			1		3	-	
AF-RHMW12A-WGN01LF-2310	100123	1240	G		11	-			++							
AF-RHMW12A-WGFD01LF-2310	10/3/123	1240	G	W	ИИ	1 X								3		
	•				++-	4-4				+-+		-		>		
			i_		\top					+-				100		
		 	0	J	坩	_			+ +	+-+		+ +	-			
	1	ya	7		14	4		-		44	4	\perp				
	L \	1	1	0121	.۲۲									0		
					П											
	-				++	+			111	+	+					•
		t			4						_	\pm		•		
Possible Hazard Identification					S	ample	Disposa	al (A fee	may be	assess	ed if sa	mple	s are re	etaine	ed longer than 1 m	ionth)
Non-Hazard Flammable Skin Imitant Poison E			ological				eturn To			Dispos				Arch	ive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)	Prelim data (Le 4 report standar				ge S _l	pecial I	Instructio	ons/QC F	Requireme	ents: D	od QS	M proj	ect.			
																78
Empty Kit Relinquished by:	Date/Time:	Date:	1000	AECOM	Time		ved by:	-15	n		nethod of	Shipme Date/1			122 /4/10	AECOM
TIVITE HSTONIA	Date/Time:	4	440	Company			ved by:	=11	Must	1		Date/1	(ime:	/3/	23 1440	Company
Relinquished by: Eli Muth	10/5/	23 (145	ATTOO			/	1	1							
Relinquished by:	Date/Time:	7		Company		Recei	ved by:	1				Date/I	line: /	3	1246	Company
Custody Seals Intact: Custody Seal No.:						Coole	Temperat	ture(s) °C a	and Other Re	emarks:		1	10/1		1	
							1	/							15.4	Ver: 01/16/2019

Chain of Custody Record



Client Information	Sampler:	e As	ovli	Lab F Elai	Рм: ne Wa	lker			Carrier Tracki FedEx	ng No(s):		COC No: 2310AFEA05	
Client Information Client Contact:	Phone:	200	-9951	E-Ma	ail:				State of Origin	1:		Page:	
Company:	1 750	01700-	IPWSID:	M.E	laine, v	Valker(d	EurofinsET.c	om	Hawaii			Page 1 of 1	-
AECOM							An	alysis Re	quested		1		
Address: 1001 Bishop St. Suite 1600	Due Date Requeste see subcontract				6, 6							Preservation Cod	les:
City:	TAT Requested (da	ays):			ш	Ш	$ \chi $					A - HCL	M - Hexane
Honolulu State, Zip:		Rush -	5 Day				$ \rangle$	4				B - NaOH C - Zn Acetate	N - None O - AsNaO2
Hawaii 96813	Compliance Projec	t: Δ Yes	A No		ш	2		* L				D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3
Phone:	PO #:				ш	I à I		10				F - MeOH G - Amchior	R - Na2S2O3 S - H2SO4
808-954-4512 / 770-331-0794 Email:	WO #:				2	, X		37				H - Ascorbic Acid I - Ice	T - TSP Dodecahydrate U - Acetone
Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)					S L	ž,			1 1/3			J - DI Water K - EDTA	V - MCAA W - pH 4-5
Project Name: CTO N6274223F0104	Project #: 60697810				ple (Yes or No	2-(2-butoxyethoxy)-ethanol			12K		1 2	L - EDA	Z - other (specify)
Site:	ssow#:				- [종]	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			$K \cap L$		conta	Other:	
RHSF					E S	180			M		0 0		
			Sample		Ped 1	8015C_DAL_GL_D5/		1 1			à		
			Туре	Matrix		₹ o			1 10		Total Number		
Sample Identification	Sample Date	Sample Time	(C=comp, G=grab)	(W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	몽	9150					I	Saarial la	
Sample identification	Sample Date			ation Code:	XX	A					1	Special II	structions/Note:
AF-RHMW12A-WGN01LF-2310	10/1/23	1240	G	w	NN						3		
AE BHANAISA MOEDALE 2240	10 100		-	10/	H	+++	+++	++	+++				-
AF-RHMW12A-WGFD01LF-2310	10/3/13	1240	G	W	N N	X	+		\bot		3		
			-		Н	-			+++		>		
			L								100		
			0	J		-			+				
	10	10	1		117		+++						
	1	1	1	0/3/	$\Gamma \Gamma$								
					H		+++						
					4				 				
Possible Hazard Identification					Sa	mple D	isposal (A fe	e may be a	ssessed if s	samples are	retaine	d longer than 1	month)
Non-Hazard Flammable Skin Irritant Poison E	B Unknown	Radio	ological			Retu	um To Client		Disposal By L	.ab	J <i>Archi</i> √	ve For	Months
Deliverable Requested: I, II, III, IV, Other (specify)	Prelim data (Lev	vel 1or2)=se	e TAT abov		e Sp	ecial Ins	structions/QC						
	4 report standar	d TAT. AE	COM EQuIS	EDD.									
E		Data			I-				District	4 Chiamanti	- N- /	4: 12: 01/	// A
Empty Kit Relinquished by:	Date/Time: 72 /	Date:	440	AECOM	Time:	Receive	d by: 517	Mustr		Date/Time:	12/	23 /4UA	AECON
Relinquished by:	Date/Time:	07		Сотрапу		Receive	d by:	1 14 87	1	Date/Time:	11/6	0)! 41	Company
Eliphith	10/5/	23 19	145	ATTOM			1	1					
Relinquished by:	Date/Time:			Company		Receive	dby	1		Date/Time:	73	1246	Company
Custody Seals Intact: Custody Seal No.:						Coole/T	emperature (s) °C	and Other Re	marks:	110/10/		100	
						-	//			7	- 1	511	Ver: 01/16/2019

Client: AECOM Job Number: 580-132501-1

Login Number: 132501 List Source: Eurofins Seattle

List Number: 1

Creator: Johnson, Corey M

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

Eurofins Seattle