DEPARTMENT OF THE NAVY
COMMANDER
NAVY REGION HAWAII
850 TICONDEROGA ST STE 110
JBPHH, HAWAII 96860-5101

OCT 04 2019

5090
Ser N45
October 2, 2019

CERTIFIED NO: 7016 0910 0001 0898 4781

Ms. Joanna Seto, Chief
Hawaii State Department of Health
Environmental Management Division
Safe Drinking Water Branch
2385 Waimano Home Road
Uluakupu Building 4
Pearl City, HI 96782

Dear Ms. Seto:

SUBJECT: 2019 SECOND QUARTER DRINKING WATER MONITORING RESULTS FOR RED HILL, JOINT BASE PEARL HARBOR-HICKAM WATER SYSTEM (PWS NO. 360)

As required by the Transition Plan for Tank 5 Red Hill Release drinking water samples were collected at the Red Hill Shaft on June 25, 2019. Lead was detected at 18 parts per billion (ppb); no other contaminants were detected. Laboratory reports are included as enclosure (1). Please note that laboratory analysis for Semi Volatile Organic Chemicals (SVOCs) did not meet quality control (QC) standards for the sample collected on June 25, 2019; as a result, an additional sample was collected on July 22, 2019 and analyzed for SVOCs. This laboratory report is provided as enclosure (2). A description of and our response to this detection of lead are provided in detail in the following paragraphs:

On July 8, 2019 the Navy received verbal notification of a result for lead of 18 ppb, which exceeds the Lead and Copper Rule's Action Level of 15ppb (based on 90th percentile). Our staff spoke with Ms. Anne Zane of Hawaii State Department of Health's Safe Drinking Water Branch (SDWB) to inform her of the results on July 8, 2019. SDWB recommended that the Navy first confirm the presence of lead before proceeding with a press release or public notification.

Based on guidance from SDWB, confirmation samples were collected over the following four weeks and analyzed for lead. On July 10, 2019 and July 15, 2019 samples were collected from three locations; Red Hill Shaft (RHMW 2254-01); Red Hill Shaft Pumphead, Pre-Treatment (360-001); and Red Hill Chlorinator Building, Post-Treatment (360-011). Duplicate samples from each location were sent to three laboratories (Hawaii Department of Health Lab, Eurofins Eaton Analytical, and Eurofins, Test America). As recommended by SDWB, samples were collected from the Red Hill Shaft Pump Head, Pre-Treatment (360-001) and Red Hill Chlorinator Building (360-011) on July 22, 2019 and July 29, 2019, and analyzed by the same three laboratories.

A table summarizing the lab results of the lead confirmation samples is provided as enclosure (3). Laboratory reports from the contract laboratories are provided in enclosures (4-7). All samples analyzed were below the action level for lead (15 ppb). SDWB concluded that a press release was not necessary, since lead above the action level was not confirmed.

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Ser N45
October 2, 2019

As a precautionary measure, water production at the Red Hill Shaft was temporarily halted on July 10, 2019, until the first set of confirmation sample results came back below the action level.

In response to these events, the actions listed below have been identified or completed:

1. The Navy will continue to look at its internal and external communication strategies to ensure it is prepared to respond should there be future events that require public notice.
2. The Navy replaced the existing copper line running from the pump room to the chlorinator building with approximately 240' of 2" schedule 80 PVC pipe. This waterline transmits post-treatment water from the pump room to the post-treatment sampling tap (360-011).
3. The Navy installed new sampling bibs with stainless steel tubing and fittings at the pre-treatment sampling locations at the pumps.
    a. The Navy plans to collect a first draw and flush samples at these locations, as recommended by SDWB.
4. The Navy will consider collecting a filtered lead sample during quarterly sampling events to help differentiate total lead and dissolved lead.

We would like to thank Ms. Ann Zane and the rest of your staff for their outstanding support and guidance throughout this event. Their technical expertise and collaborative approach to the situation helped to shape a technically sound and practical response to the initial detection of lead. We appreciate your support, and value this partnership. If you have any questions, my point of contact is Mr. Dean Setiono, who can be reached at (808) 471-4811or at dean.setiono@navy.mil.

Sincerely,

AARON Y. POENTIS
Director
Regional Environmental Department
By direction of the
Commander

Enclosures:
1. NAVFAC Hawaii Lab Reports for Samples Collected 6/25/2019 (50 pages)
2. NAVFAC Hawaii Lab Reports for SVOC Resample Collected 7/22/2019 (16 pages)
3. Lead Confirmation Samples Results Summary Table
4. NAVFAC Hawaii Lab Reports for Confirmation Lead Samples Collected 7/10/2019
5. NAVFAC Hawaii Lab Reports for Confirmation Lead Samples Collected 7/15/2019
6. NAVFAC Hawaii Lab Reports for Confirmation Lead Samples Collected 7/22/2019
7. NAVFAC Hawaii Lab Reports for Confirmation Lead Samples Collected 7/29/2019

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Ser N45
October 2, 2019

Copy to:

Department of Health, Solid and Hazardous Waste Branch, Underground Storage Tank Section
(Hard copy w/ enclosure)

Electronic copy to:

Mr. John Floyd, NAVSUP Fleet Logistics Center Pearl Harbor Deputy Director, Fuel and Facility Management

Mr. Ralph Wells, DLA Energy Pacific

MEMORANDUM

26 Jul 19

Packet No: 19-078800726

From: NAVFAC HAWAII, Environmental Services Laboratory, PRP411

To: Kyle Teraoka NAVFACHI OPBP6

Copy To: BRIAN YAMADA NAVFAC EV1

Subj: ☐ LABORATORY REPORTS
☐ MISCELLANEOUS CHARGES AND/OR CHAIN(S) OF CUSTODY SHEETS

Encl: Lab Number(s) 19-07880 , 19-07881

1. Thank you for using our laboratory to provide you with quality test results and/or services.

2. Please take a few minutes and check over the enclosures. If you believe anything is missing or in need of correction, let us know immediately and we will send you a correction as soon as possible.

3. Our goal is to better serve all our customers and we are concerned that you are receiving our services in the most efficient and timely manner possible. Please acknowledge receipt by signing below and returning this memo so we will know that you have received the enclosures. Also feel free to include any comments you have concerning our services. You may return this memo to us through the guardmail (NAVFAC HI PRP411) or fax it to 471-4534.

4. After the laboratory reports are archived, additional copies are available with an archival fee of $72.00/hr. If you have any questions, please contact us at 474-3704 or at the above fax number.

~~5. Laboratory certifies that the results meet all A2LA requirements unless noted in the "remarks" section of the report.~~ 9 JUL 19

Duane Morita, Acting Laboratory Manager

TOTAL NO. OF PAGES: 50

To: NAVFAC HI PRP4

☐ Receipt acknowledged. Enclosures appear complete and acceptable.

☐ Comments/discrepancies noted.

_____

_____

☐ Please fax corrections/amendments to Fax#: _____

or guardmail to: _____

Customer's Signature/Date: _____

ENCLOSURE(1) 1

STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-165982-1
Client Project/Site: 19-07880 JBPHH Red Hill / TP001 360-011

For
Eurofins Eaton Analytical
110 S Hill Street
South Bend, Indiana 46617

Attn: Kelly Blackburn

Authorized for release by:
7/7/2019 9:00:10 AM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

Case Narrative

Client: Eurofins Eaton Analytical
Project/Site: 19-07880 JBPHH Red Hill / TP001 360-011

Job ID: 500-165982-1

Job ID: 500-165982-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-165982-1

Comments
No additional comments.

Receipt
The sample was received on 6/29/2019 9:40 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

GC Semi VOA
Method(s) 8015D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 500-493031 and analytical batch 500-493080 recovered outside control limits for the following analytes: C8-C18 TPH - Jet Fuel (JP8).

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

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

Method Summary

Client: Eurofins Eaton Analytical
Project/Site: 19-07880 JBPHH Red Hill / TP001 360-011

Job ID: 500-165982-1

Method	Method Description	Protocol	Laboratory
8015D	Diesel Range Organics (DRO) (GC)	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Client Sample Results

Client: Eurofins Eaton Analytical
Project/Site: 19-07880 JBPHH Red Hill / TP001 360-011

Job ID: 500-165982-1

Client Sample ID: 4337245
Date Collected: 06/25/19 08:30
Date Received: 06/29/19 09:40

Lab Sample ID: 500-165982-1
Matrix: Water

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C8-C18 TPH – Jet Fuel (JP8)	<0.48	*	0.48	0.24	mg/L		07/02/19 08:18	07/02/19 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*77*		*50 - 148*	*07/02/19 08:18*	*07/02/19 14:57*	*1*
2-Fluorobiphenyl	*71*		*50 - 140*	*07/02/19 08:18*	*07/02/19 14:57*	*1*

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QC Association Summary

Client: Eurofins Eaton Analytical
Project/Site: 19-07880 JBPHH Red Hill / TP001 360-011

Job ID: 500-165982-1

GC Semi VOA

Prep Batch: 493031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165982-1	4337245	Total/NA	Water	3510C	
MB 500-493031/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-493031/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-493031/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 493080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165982-1	4337245	Total/NA	Water	8015D	493031
MB 500-493031/1-A	Method Blank	Total/NA	Water	8015D	493031
LCS 500-493031/2-A	Lab Control Sample	Total/NA	Water	8015D	493031
LCSD 500-493031/3-A	Lab Control Sample Dup	Total/NA	Water	8015D	493031

QC Sample Results

Client: Eurofins Eaton Analytical
Project/Site: 19-07880 JBPHH Red Hill / TP001 360-011

Job ID: 500-165982-1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 500-493031/1-A
Matrix: Water
Analysis Batch: 493080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 493031

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C8-C18 TPH – Jet Fuel (JP8)	<0.50		0.50	0.25	mg/L		07/02/19 08:18	07/02/19 13:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*80*		*50 - 148*	*07/02/19 08:18*	*07/02/19 13:11*	*1*
2-Fluorobiphenyl	*76*		*50 - 140*	*07/02/19 08:18*	*07/02/19 13:11*	*1*

Lab Sample ID: LCS 500-493031/2-A
Matrix: Water
Analysis Batch: 493080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C8-C18 TPH – Jet Fuel (JP8)	2.00	1.71		mg/L		85	50 - 141

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl (Surr)	*90*		*50 - 148*
2-Fluorobiphenyl	*74*		*50 - 140*

Lab Sample ID: LCSD 500-493031/3-A
Matrix: Water
Analysis Batch: 493080

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 493031

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C8-C18 TPH – Jet Fuel (JP8)	2.00	1.38	*	mg/L		69	50 - 141	21	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl (Surr)	*77*		*50 - 148*
2-Fluorobiphenyl	*64*		*50 - 140*

Accreditation/Certification Summary

Client: Eurofins Eaton Analytical
Job ID: 500-165982-1
Project/Site: 19-07880 JBPHH Red Hill / TP001 360-011

Laboratory: Eurofins TestAmerica, Chicago

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2903	04-30-19 *
Georgia	State Program	4	N/A	04-30-20
Hawaii	State Program	9	N/A	04-30-20
Illinois	NELAP	5	100201	04-30-20
Indiana	State Program	5	C-IL-02	06-30-19 *
Iowa	State Program	7	82	05-01-20
Kansas	NELAP	7	E-10161	10-31-19 *
Kentucky (UST)	State Program	4	66	06-30-19 *
Kentucky (WW)	State Program	4	KY90023	12-31-19
Louisiana	NELAP	6	30720	06-30-20
Mississippi	State Program	4	N/A	06-30-19 *
New York	NELAP	2	12019	04-01-20
North Carolina (WW/SW)	State Program	4	291	12-31-19
North Dakota	State Program	8	R-194	05-30-19 *
Oklahoma	State		8908	08-31-19
Oklahoma	State Program	6	8908	08-31-19 *
South Carolina	State Program	4	77001	05-30-19 *
Wisconsin	State Program	5	999580010	08-31-19 *
Wyoming	State Program	8	8TMS-Q	04-30-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Login Sample Receipt Checklist

Client: Eurofins Eaton Analytical

Job Number: 500-165982-1

Login Number: 165982
List Number: 1
Creator: Floravanti, Ariel M

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
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	2.2
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.	True	
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	

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Navy Facilities Engineering Command, Hawaii, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON: 178014602019	ESM:	POC: Kyle Teraoka	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Teraoka		Copy To: Brian Yamada	Copy To:	
NAVFAC HI OPBP6		NAVFAC HI EV11		
kyle.teraoka@navy.mil		brian.m.yamada@navy.mil		

Sample ID	Sample Description	Matrix Code	Sampling Date	Sampling Time	Container Vol	Container Type	Analysis Required	Preservative / Res. Cl (ppm)	pH	FOR LAB USE ONLY Lab Number	Ext.	Lctn.	Cond. A	Cond. U
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Tap outside the Cl2 Bldg	DW	6/25/2019	0830	3x40ml.	Glass	Volatiles (524.2)	Ascorbic, HCl		19-07880	1-3	C	✓	
					2x1L	Glass	Semi-Volatiles (525.2)	Sulfite, HCl ✓ 0.2			4-5	C	✓	✓
					2x1L	Glass	TPH as Diesel (JP-8) (8015)				6-7	C	✓	
					125mL	Plastic	Lead (200.8)	HNO3 pH<2			8	C	✓	
Trip Blank			~~6/25/2019~~ 5/28/19		2x40ml	Glass	Volatiles	Ascorbic, HCl		19-07881	1-2	C	✓	

Sampling Information	Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill	Transported/Stored in: Cooler with ice	Cooler Temp: °C	[ ] Return to customer	[X] Received with CoC
Sampler(s): (Print names clearly) K. Miyaki	Air bill/Carrier ID#:		[X] Dispose at 60 Days	[ ] Received with Custody Seals
			[ ] Archive for ____ Days	[ ] Seals Required [ ] Seals Intact
			[ ] Contact before disposal	[X] Labels and CoC agree

Remarks: Any EPA approved drinking water method for organic chemicals, 40 CFR 141.24, may be used.
Laboratory must certified by the Hawaii State DOH Drinking Water Program.

Relinquished By: (Print clearly & Sign)	Date	Time	Received By: (Print clearly & Sign)	Date	Time
K. Miyaki K. Miyaki	6/25/19	1310	L. Lahui	6/25/19	1310

PH-NAVFAC HI 6280/5 (Rev. 04-05)

SENDER

SENDER

Name: Duane Morita , Phone: (808) 474-3704

Company: NAVFAC Hawaii

Address: Environmental Lab, PRJ411

Address: Bldg 1423, Central Avenue

City: JBPHH , State: HI , Zip Code: 96860 ,

Email: duane.morita@navy.mil

RECIPIENT

Name: Donna Martis , Phone: (574) 233-4777

Company: Eurofins Eaton Ana South Bend ,

Address: 110 S. Hill Street

Address:

City: South Bend , State : IN Zip Code: 46617

Fedex Account #: 3594-2662-3

Email: KellyBlackburn@EurofinsUS.com

Signature: Yes X , No $ Value: 30.00

STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

eurofins | Eaton Analytical

110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: NAVFAC Hawaii

Attn: Duane Morita
Environmental Lab, Code PRJ411
Building 1423, Central Avenue
JBPHH, HI 96860

Report: 456680
Priority: Rush Verbal
Status: Final
PWS ID: HI0000360

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4337233	19-07880,JBPHHRedHillTP001	524.2	06/25/19 08:30	Client	06/27/19 08:30
4337234	19-07880,JBPHHRedHillTP001	525.2	06/25/19 08:30	Client	06/27/19 08:30
4337235	19-07880,JBPHHRedHillTP001	200.8	06/25/19 08:30	Client	06/27/19 08:30

Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Kelly Blackburn at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Kelly Blackburn ASM — 07/24/2019

Authorized Signature — Title — Date

Client Name: NAVFAC Hawaii
Report #: 456680

$ The state of origin does not offer certification for this parameter.

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

eurofins | Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 367933
Batch # 456680

www.eatonanalytical.com

Shaded area for EEA use only

CHAIN OF CUSTODY RECORD

Page 1 of 21

REPORT TO:	SAMPLER (Signature)	PWS ID #	STATE (sample origin)	PROJECT NAME	PO#
NAVFAC Hawaii		HI0000360	HI		

BILL TO:	COMPLIANCE MONITORING	Yes	No	POPULATION SERVED	SOURCE WATER
NAVFAC Hawaii		X			GW

	LAB Number	COLLECTION DATE	COLLECTION TIME	AM	PM	SAMPLING SITE	TEST NAME	SAMPLE REMARKS	CHLORINATED YES	CHLORINATED NO	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
1	433233	06/25/19	0830	X		19-07880, JBPHH Red Hill	Volatiles (524.2) See attached list		X		3	DW	RV
2						TP001 360-011							
3	234						Semivolatiles (525.2) See attached list		X		2	DW	RV
4													
5	235						Lead (200.8)		X		1	DW	RV
6													
7													
8													
9	236	05/28/19				19-07881	Volatiles (524.2)		X		2	DW	RV
10						Trip Blank							
11													
12													
13													
14													

RUSH VERBAL

RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
	25 Jun 2019	1330 AM PM	Fedex		AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
		AM PM			AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME
		AM PM		6-27-19	1830 AM PM

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS: LT12 VIALS CONTAIN ACCEPTABLE BUBBLES

CONDITIONS UPON RECEIPT (check one): X Iced: Wet/Blue ____ Ambient 4.4 °C Upon Receipt ____ N/A

MATRIX CODES:
DW-DRINKING WATER
RW-REAGENT WATER
GW-GROUND WATER
EW-EXPOSURE WATER
SW-SURFACE WATER
PW-POOL WATER
WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written. (15 working days)	0%	IV* = Immediate Verbal: (3 working days)	100%
RV* = Rush Verbal: (5 working days)	50%	IW* = Immediate Written: (3 working days)	125%
RW* = Rush Written. (5 working days)	75%	SP* = Weekend, Holiday	CALL
		STAT* = Less than 48 hours	CALL

* Please call, expedited service not available for all testing

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.

Sample analysis will be provided according to the standard EEA/Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agree to in writing by EEA.

06-LO-F0435 Issue 4.0 Effective Date: 2014-05-01

3-1-8

VOCs tested (EPA Method 524.2)
Benzene
Carbon tetrachloride
Chlorobenzene
1,2-Dichlorobenzene
1,4-Dichlorobenzene
1,2-Dichloroethane
1,1-Dichloroethylene
cis-1,2-Dichloroethylene
trans-1,2-Dichloroethylene
Dichloromethane
1,2-Dichloropropane
Ethylbenzene
Napthithalene (unregulated)
Styrene
Tetrachloroethylene
Toluene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene
Vinyl chloride
Xylenes, Total

SVOCs tested (EPA Method 525.2)
Benzo(a)pyrene
Di(2-ethylhexyl)adipate
Di(2-ethylhexyl)phthalate
Acenaphthene (unregulated)
Acenaphthylene (unregulated)
Anthracene (unregulated)
Phenanthrene (unregulated)
Fluoranthene (unregulated)
Pyrene (unregulated)

TPH as Diesel (JP-8) (SW846 8015 GCMS)

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Run Log

Run ID: **261475** Method: **200.8**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	4342980		RW	FQ	07/05/2019 12:17	
ICV	4342981		RW	FQ	07/05/2019 12:19	
ICB	4342982		RW	FQ	07/05/2019 12:21	
LDB	4343869		RW	FQ	07/05/2019 12:24	
DFB	4343872		RW	FQ	07/05/2019 12:31	
FS	4337235	19-07880,JBPHHRedHillTP001	DW	FQ	07/05/2019 12:40	
CCV	4342985		RW	FQ	07/05/2019 12:49	
CCB	4342986		RW	FQ	07/05/2019 12:51	

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Run Log
Run ID: **261263** Method: **524.2**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
CCC	4337763		RW	PW2	06/28/2019 13:12	524 2-050119-PW2-up1.mth
CCL	4337768		RW	PW2	06/28/2019 13:59	524 2-050119-PW2-up1.mth
LMB	4337769		RW	PW2	06/28/2019 14:32	524 2-050119-PW2-up1.mth
LTB	4337236	19-07881,LTB-05/28/19	RW	PW2	06/28/2019 20:16	524 2-050119-PW2-up1.mth
FS	4337233	19-07880,JBPHHRedHillTP001	DW	PW2	06/28/2019 20:49	524 2-050119-PW2-up1.mth
MS	4338519	19-07880,JBPHHRedHillTP001	DW	PW2	06/28/2019 21:22	524 2-050119-PW2-up1.mth
CCC	4337764		RW	PW2	06/28/2019 21:55	524 2-050119-PW2-up1.mth
LMB	4337770		RW	PW2	06/28/2019 23:35	524 2-050119-PW2-up1.mth

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCL	cis-1,2-Dichloroethylene	524.2	0.5	---		0.4840	0.5	ug/L	97	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	trans-1,2-Dichloroethylene	524.2	0.5	---		0.4760	0.5	ug/L	95	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	Dichloromethane	524.2	0.5	---		0.5530	0.5	ug/L	111	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	1,2-Dichloropropane	524.2	0.5	---		0.4630	0.5	ug/L	93	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	Ethylbenzene	524.2	0.5	---		0.4900	0.5	ug/L	98	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	Styrene	524.2	0.5	---		0.5050	0.5	ug/L	101	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	Tetrachloroethylene	524.2	0.5	---		0.4480	0.5	ug/L	90	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	Toluene	524.2	0.5	---		0.5000	0.5	ug/L	100	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	1,2,4-Trichlorobenzene	524.2	0.5	---		0.4400	0.5	ug/L	88	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	1,1,1-Trichloroethane	524.2	0.5	---		0.4770	0.5	ug/L	95	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	1,1,2-Trichloroethane	524.2	0.5	---		0.4680	0.5	ug/L	94	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	Trichloroethylene	524.2	0.5	---		0.4830	0.5	ug/L	97	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	Vinyl chloride	524.2	0.2	---		0.3940	0.5	ug/L	79	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	1,2-Xylene	524.2	0.5	---		0.4770	0.5	ug/L	95	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
CCL	1,3 + 1,4-Xylene	524.2	0.5	---		0.9570	1.0	ug/L	96	50 - 150	---	---	1.0	---	06/28/2019 13:59	4337768
LMB	IS-1,4-Difluorobenzene	524.2	N/A	---		241666	239833	ug/L	101	70 - 130	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	SS-Bromofluorobenzene	524.2	N/A	---		4.7390	5.0	ug/L	95	70 - 130	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	SS-1,2-Dichlorobenzene-d4	524.2	N/A	---		9.4020	10.0	ug/L	94	70 - 130	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	SS-1,2-Dichloroethane-d4	524.2	N/A	---		10.0050	10.0	ug/L	100	70 - 130	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	SS-Toluene-d8	524.2	N/A	---		9.8530	10.0	ug/L	99	70 - 130	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	Benzene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	Carbon tetrachloride	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	Chlorobenzene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	1,2-Dichlorobenzene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	1,4-Dichlorobenzene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	1,2-Dichloroethane	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	1,1-Dichloroethylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	cis-1,2-Dichloroethylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	trans-1,2-Dichloroethylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	Dichloromethane	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	1,2-Dichloropropane	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	Ethylbenzene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	Naphthalene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	Styrene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	Tetrachloroethylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	Toluene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	1,2,4-Trichlorobenzene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	1,1,1-Trichloroethane	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	1,1,2-Trichloroethane	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	Trichloroethylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769
LMB	Vinyl chloride	524.2	0.2	---	<	0.2		ug/L	---	---	---	---	1.0	---	06/28/2019 14:32	4337769

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FS	1,1-Dichloroethylene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	cis-1,2-Dichloroethylene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	trans-1,2-Dichloroethylene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	Dichloromethane	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	1,2-Dichloropropane	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	Ethylbenzene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	Naphthalene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	Styrene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	Tetrachloroethylene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	Toluene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	1,2,4-Trichlorobenzene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	1,1,1-Trichloroethane	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	1,1,2-Trichloroethane	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	Trichloroethylene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	Vinyl chloride	524.2	0.2	19-07880,JBPHHRedHillTP001	<	0.2		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	1,2-Xylene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	1,3 + 1,4-Xylene	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
FS	Xylenes, Total	524.2	0.5	19-07880,JBPHHRedHillTP001	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 20:49	4337233
MS	IS-1,4-Difluorobenzene	524.2	N/A	19-07880,JBPHHRedHillTP001		219994	239933	ug/L	92	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	SS-Bromofluorobenzene	524.2	N/A	19-07880,JBPHHRedHillTP001		4.9960	5.0	ug/L	100	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	SS-1,2-Dichlorobenzene-d4	524.2	N/A	19-07880,JBPHHRedHillTP001		10.0180	10.0	ug/L	100	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	SS-1,2-Dichloroethane-d4	524.2	N/A	19-07880,JBPHHRedHillTP001		9.8350	10.0	ug/L	98	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	SS-Toluene-d8	524.2	N/A	19-07880,JBPHHRedHillTP001		10.0030	10.0	ug/L	100	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	Benzene	524.2	0.5	19-07880,JBPHHRedHillTP001		10.1540	10.0	ug/L	102	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	Carbon tetrachloride	524.2	0.5	19-07880,JBPHHRedHillTP001		11.7940	10.0	ug/L	118	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	Chlorobenzene	524.2	0.5	19-07880,JBPHHRedHillTP001		9.8870	10.0	ug/L	99	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	1,2-Dichlorobenzene	524.2	0.5	19-07880,JBPHHRedHillTP001		9.7820	10.0	ug/L	98	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	1,4-Dichlorobenzene	524.2	0.5	19-07880,JBPHHRedHillTP001		10.0910	10.0	ug/L	101	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	1,2-Dichloroethane	524.2	0.5	19-07880,JBPHHRedHillTP001		10.0820	10.0	ug/L	101	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	1,1-Dichloroethylene	524.2	0.5	19-07880,JBPHHRedHillTP001		10.1670	10.0	ug/L	102	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	cis-1,2-Dichloroethylene	524.2	0.5	19-07880,JBPHHRedHillTP001		10.1500	10.0	ug/L	102	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	trans-1,2-Dichloroethylene	524.2	0.5	19-07880,JBPHHRedHillTP001		10.0640	10.0	ug/L	101	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	Dichloromethane	524.2	0.5	19-07880,JBPHHRedHillTP001		10.3200	10.0	ug/L	103	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	1,2-Dichloropropane	524.2	0.5	19-07880,JBPHHRedHillTP001		10.1380	10.0	ug/L	101	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	Ethylbenzene	524.2	0.5	19-07880,JBPHHRedHillTP001		10.1030	10.0	ug/L	101	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	Naphthalene	524.2	0.5	19-07880,JBPHHRedHillTP001		9.8900	10.0	ug/L	99	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	Styrene	524.2	0.5	19-07880,JBPHHRedHillTP001		9.7040	10.0	ug/L	97	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	Tetrachloroethylene	524.2	0.5	19-07880,JBPHHRedHillTP001		10.1850	10.0	ug/L	102	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	Toluene	524.2	0.5	19-07880,JBPHHRedHillTP001		9.9840	10.0	ug/L	100	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	1,2,4-Trichlorobenzene	524.2	0.5	19-07880,JBPHHRedHillTP001		9.8730	10.0	ug/L	99	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519
MS	1,1,1-Trichloroethane	524.2	0.5	19-07880,JBPHHRedHillTP001		10.4530	10.0	ug/L	105	70 - 130	---	---	1.0	---	06/28/2019 21:22	4338519

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
LMB	1,2-Dichlorobenzene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	1,4-Dichlorobenzene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	1,2-Dichloroethane	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	1,1-Dichloroethylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	cis-1,2-Dichloroethylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	trans-1,2-Dichloroethylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	Dichloromethane	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	1,2-Dichloropropane	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	Ethylbenzene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	Naphthalene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	Styrene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	Tetrachloroethylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	Toluene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	1,2,4-Trichlorobenzene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	1,1,1-Trichloroethane	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	1,1,2-Trichloroethane	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	Trichloroethylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	Vinyl chloride	524.2	0.2	---	<	0.2		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	1,2-Xylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770
LMB	1,3 + 1,4-Xylene	524.2	0.5	---	<	0.5		ug/L	---	---	---	---	1.0	---	06/28/2019 23:35	4337770

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCC	IS-Chrysene-d12	525.2	N/A	---		1273000	1273000	ug/L	100	50 - 150	---	---	1.0	07/01/2019 07:45	07/02/2019 11:24	4339812
CCC	IS-Phenanthrene-d10	525.2	N/A	---		1750000	1750000	ug/L	100	50 - 150	---	---	1.0	07/01/2019 07:45	07/02/2019 11:24	4339812
CCC	IS-Pyrene-d10	525.2	N/A	---		1331000	1331000	ug/L	100	50 - 150	---	---	1.0	07/01/2019 07:45	07/02/2019 11:24	4339812
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		4.6930	5.0	ug/L	94	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 11:24	4339812
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		5.3460	5.0	ug/L	107	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 11:24	4339812
CCC	SS-Triphenylphosphate	525.2	N/A	---		5.0220	5.0	ug/L	100	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 11:24	4339812
CCC	Acenaphthene	525.2	0.1	---		5.0720	5.0	ug/L	101	65 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 11:24	4339812
CCC	Acenaphthylene	525.2	0.1	---		5.1730	5.0	ug/L	103	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 11:24	4339812
CCC	Anthracene	525.2	0.1	---		5.0420	5.0	ug/L	101	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 11:24	4339812
CCC	Phenanthrene	525.2	0.1	---		5.1370	5.0	ug/L	103	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 11:24	4339812
CCC	Pyrene	525.2	0.1	---		5.3140	5.0	ug/L	106	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 11:24	4339812
CCC	IS-Chrysene-d12	525.2	N/A	---		1076000	1076000	ug/L	100	50 - 150	---	---	1.0	07/01/2019 07:45	07/02/2019 12:06	4339813
CCC	IS-Phenanthrene-d10	525.2	N/A	---		1713000	1713000	ug/L	100	50 - 150	---	---	1.0	07/01/2019 07:45	07/02/2019 12:06	4339813
CCC	IS-Pyrene-d10	525.2	N/A	---		1265000	1265000	ug/L	100	50 - 150	---	---	1.0	07/01/2019 07:45	07/02/2019 12:06	4339813
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		5.1600	5.0	ug/L	103	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 12:06	4339813
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		4.8150	5.0	ug/L	96	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 12:06	4339813
CCC	SS-Triphenylphosphate	525.2	N/A	---		5.3490	5.0	ug/L	107	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 12:06	4339813
CCC	Fluoranthene	525.2	0.1	---		4.9590	5.0	ug/L	99	65 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 12:06	4339813
CCC	IS-Chrysene-d12	525.2	N/A	---		1169000	1169000	ug/L	100	50 - 150	---	---	1.0	07/01/2019 07:45	07/02/2019 12:48	4339814
CCC	IS-Phenanthrene-d10	525.2	N/A	---		1690000	1690000	ug/L	100	50 - 150	---	---	1.0	07/01/2019 07:45	07/02/2019 12:48	4339814
CCC	IS-Pyrene-d10	525.2	N/A	---		1279000	1279000	ug/L	100	50 - 150	---	---	1.0	07/01/2019 07:45	07/02/2019 12:48	4339814
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		5.6590	5.0	ug/L	113	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 12:48	4339814
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		4.8520	5.0	ug/L	97	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 12:48	4339814
CCC	SS-Triphenylphosphate	525.2	N/A	---		5.2920	5.0	ug/L	106	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 12:48	4339814
CCC	Benzo(a)pyrene	525.2	0.02	---		4.8940	5.0	ug/L	98	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 12:48	4339814
CCC	Di(2-ethylhexyl)adipate	525.2	0.6	---		5.5730	5.0	ug/L	111	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 12:48	4339814
CCC	Di(2-ethylhexyl)phthalate	525.2	0.6	---		5.4820	5.0	ug/L	110	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 12:48	4339814
LFB	IS-Chrysene-d12	525.2	N/A	---		1150000	1169000	ug/L	98	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 13:30	4339809
LFB	IS-Phenanthrene-d10	525.2	N/A	---		1721000	1690000	ug/L	102	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 13:30	4339809
LFB	IS-Pyrene-d10	525.2	N/A	---		1320000	1279000	ug/L	103	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 13:30	4339809
LFB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		5.3080	5.0	ug/L	106	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 13:30	4339809
LFB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		4.4050	5.0	ug/L	88	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 13:30	4339809
LFB	SS-Triphenylphosphate	525.2	N/A	---		5.3940	5.0	ug/L	108	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 13:30	4339809
LFB	Fluoranthene	525.2	0.1	---		5.0160	5.0	ug/L	100	64 - 139	---	---	1.0	07/01/2019 07:45	07/02/2019 13:30	4339809
LFB	IS-Chrysene-d12	525.2	N/A	---		995498	1169000	ug/L	85	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 14:12	4339810
LFB	IS-Phenanthrene-d10	525.2	N/A	---		1376000	1690000	ug/L	81	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 14:12	4339810
LFB	IS-Pyrene-d10	525.2	N/A	---		1186000	1279000	ug/L	93	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 14:12	4339810
LFB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		5.5920	5.0	ug/L	112	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 14:12	4339810
LFB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		4.5330	5.0	ug/L	91	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 14:12	4339810
LFB	SS-Triphenylphosphate	525.2	N/A	---		5.5890	5.0	ug/L	112	70 - 130	---	---	1.0	07/01/2019 07:45	07/02/2019 14:12	4339810

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FS	Fluoranthene	525.2	0.1	19-07880,JBPHHRedHillTP001	<	0.1		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 16:18	4337234
FS	Phenanthrene	525.2	0.1	19-07880,JBPHHRedHillTP001	<	0.1		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 16:18	4337234
FS	Pyrene	525.2	0.1	19-07880,JBPHHRedHillTP001	<	0.1		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 16:18	4337234
FD	IS-Chrysene-d12	525.2	N/A	19-07880,JBPHHRedHillTP001		1072000	1169000	ug/L	92	70 - 130	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	IS-Phenanthrene-d10	525.2	N/A	19-07880,JBPHHRedHillTP001		1660000	1690000	ug/L	98	70 - 130	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	IS-Pyrene-d10	525.2	N/A	19-07880,JBPHHRedHillTP001		1248000	1279000	ug/L	98	70 - 130	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	SS-4,4'-Dichlorobiphenyl	525.2	N/A	19-07880,JBPHHRedHillTP001		5.3570	5.0	ug/L	110	70 - 130	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	19-07880,JBPHHRedHillTP001		4.9630	5.0	ug/L	102	70 - 130	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	SS-Triphenylphosphate	525.2	N/A	19-07880,JBPHHRedHillTP001		5.3690	5.0	ug/L	111	70 - 130	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	Acenaphthene	525.2	0.1	19-07880,JBPHHRedHillTP001	<	0.1		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	Acenaphthylene	525.2	0.1	19-07880,JBPHHRedHillTP001	<	0.1		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	Anthracene	525.2	0.1	19-07880,JBPHHRedHillTP001	<	0.1		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	Benzo(a)pyrene	525.2	0.02	19-07880,JBPHHRedHillTP001	<	0.02		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	Di(2-ethylhexyl)adipate	525.2	0.6	19-07880,JBPHHRedHillTP001	<	0.6		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	Di(2-ethylhexyl)phthalate	525.2	0.6	19-07880,JBPHHRedHillTP001	<	0.6		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	Fluoranthene	525.2	0.1	19-07880,JBPHHRedHillTP001	<	0.1		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	Phenanthrene	525.2	0.1	19-07880,JBPHHRedHillTP001	<	0.1		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816
FD	Pyrene	525.2	0.1	19-07880,JBPHHRedHillTP001	<	0.1		ug/L	---	---	---	---	0.97	07/01/2019 07:45	07/02/2019 17:00	4339816

END OF REPORT

MEMORANDUM

31 Jul 19

Packet No: 19-088030731

From: NAVFAC HAWAII, Environmental Services Laboratory, PRP411

To: Kyle Teraoka NAVFACHI OPBP6

Copy To: BRIAN YAMADA NAVFAC EV1

Subj: ☐ LABORATORY REPORTS
☐ MISCELLANEOUS CHARGES AND/OR CHAIN(S) OF CUSTODY SHEETS

Encl: Lab Number(s) 19-08803

1. Thank you for using our laboratory to provide you with quality test results and/or services.

2. Please take a few minutes and check over the enclosures. If you believe anything is missing or in need of correction, let us know immediately and we will send you a correction as soon as possible.

3. Our goal is to better serve all our customers and we are concerned that you are receiving our services in the most efficient and timely manner possible. Please acknowledge receipt by signing below and returning this memo so we will know that you have received the enclosures. Also feel free to include any comments you have concerning our services. You may return this memo to us through the guardmail (NAVFAC HI PRP411) or fax it to 471-4534.

4. After the laboratory reports are archived, additional copies are available with an archival fee of $72.00/hr. If you have any questions, please contact us at 474-3704 or at the above fax number.

~~5. Laboratory certifies that the results meet all A2LA requirements unless noted in the "remarks" section of the report.~~ 7/31/19

Duane Morita, Acting Laboratory Manager

TOTAL NO. OF PAGES: 16

To: NAVFAC HI PRP4

☐ Receipt acknowledged. Enclosures appear complete and acceptable.

☐ Comments/discrepancies noted.

_____

_____

☐ Please fax corrections/amendments to Fax#: _____

or guardmail to: _____

Customer's Signature/Date: _____

ENCLOSURE(2)

STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

Client Name: NAVFAC Hawaii Report #: 459355

Sampling Point: 19-08803,JBPHH RedHill PWS ID: HI0000360

Semi-volatile Organic Chemicals

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
83-32-9	Acenaphthene $	525.2	—	0.1	< 0.1	ug/L	07/24/19 09:00	07/26/19 10:33	4362344
208-96-8	Acenaphthylene $	525.2	—	0.1	< 0.1	ug/L	07/24/19 09:00	07/26/19 10:33	4362344
120-12-7	Anthracene $	525.2	—	0.1	< 0.1	ug/L	07/24/19 09:00	07/26/19 10:33	4362344
50-32-8	Benzo(a)pyrene	525.2	0.2 *	0.02	< 0.02	ug/L	07/24/19 09:00	07/26/19 10:33	4362344
103-23-1	Di(2-ethylhexyl)adipate	525.2	400 *	0.6	< 0.6	ug/L	07/24/19 09:00	07/26/19 10:33	4362344
117-81-7	Di(2-ethylhexyl)phthalate	525.2	6 *	0.6	< 0.6	ug/L	07/24/19 09:00	07/26/19 10:33	4362344
206-44-0	Fluoranthene $	525.2	—	0.1	< 0.1	ug/L	07/24/19 09:00	07/26/19 10:33	4362344
85-01-8	Phenanthrene $	525.2	—	0.1	< 0.1	ug/L	07/24/19 09:00	07/26/19 10:33	4362344
129-00-0	Pyrene $	525.2	—	0.1	< 0.1	ug/L	07/24/19 09:00	07/26/19 10:33	4362344

$ The state of origin does not offer certification for this parameter.

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

eurofins | Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 376048
Batch # 459355

www.eatonanalytical.com

Shaded area for EEA use only

CHAIN OF CUSTODY RECORD

Page 1 of 2

REPORT TO:	SAMPLER (Signature)	PWS ID #	STATE (sample origin)	PROJECT NAME	PO#
NAVFAC Hawaii		HI0000360	HI		

BILL TO:	COMPLIANCE MONITORING	Yes	No	POPULATION SERVED	SOURCE WATER
NAVFAC Hawaii		X			GW

	LAB Number	COLLECTION DATE	TIME	AM	PM	SAMPLING SITE	TEST NAME	SAMPLE REMARKS	CHLORINATED YES	CHLORINATED NO	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
1	4362344	07/22/19	0925	X		19-08803, JBPHH Red Hill	Semivolatiles (525.2) See attached list		X		2	DW	RV
2						TP001 360-011							
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
Duane Monta	22 Jul 2019	1440 AM PM	Fedex		AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
		AM PM			AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME
		AM PM		7/24/19	0830 AM PM

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS

CONDITIONS UPON RECEIPT (check one): ___ Iced ___ Warm/Hot ___ Ambient 2.0 °C Upon Receipt ___ N/A

MATRIX CODES:

- DW-DRINKING WATER
- RW-REAGENT WATER
- GW-GROUND WATER
- EW-EXPOSURE WATER
- SW-SURFACE WATER
- PW-POOL WATER
- WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written (15 working days)	0%	IV* = Immediate Verbal (3 working days)	100%
RV* = Rush Verbal (5 working days)	50%	IW* = Immediate Written (3 working days)	125%
RW* = Rush Written (5 working days)	75%	SP* = Weekend, Holiday	CALL
		STAT* = Less than 48 hours	CALL

* Please call, expedited service not available for all testing

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges

VOCs tested (EPA Method 524.2)
Benzene
Carbon tetrachloride
Chlorobenzene
1,2-Dichlorobenzene
1,4-Dichlorobenzene
1,2-Dichloroethane
1,1-Dichloroethylene
cis-1,2-Dichloroethylene
trans-1,2-Dichloroethylene
Dichloromethane
1,2-Dichloropropane
Ethylbenzene
Napththalene (unregulated)
Styrene
Tetrachloroethylene
Toluene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene
Vinyl chloride
Xylenes, Total

SVOCs tested (EPA Method 525.2)
Benzo(a)pyrene
Di(2-ethylhexyl)adipate
Di(2-ethylhexyl)phthalate
Acenaphthene (unregulated)
Acenaphthylene (unregulated)
Anthracene (unregulated)
Phenanthrene (unregulated)
Fluoranthene (unregulated)
Pyrene (unregulated)

TPH as Diesel (JP-8) (SW846 8015 GCMS)

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCC	IS-Chrysene-d12	525.2	N/A	---		1096000	1096000	ug/L	100	50 - 150	---	---	1.0	07/24/2019 09:00	07/25/2019 17:42	4363147
CCC	IS-Phenanthrene-d10	525.2	N/A	---		1690000	1690000	ug/L	100	50 - 150	---	---	1.0	07/24/2019 09:00	07/25/2019 17:42	4363147
CCC	IS-Pyrene-d10	525.2	N/A	---		1242000	1242000	ug/L	100	50 - 150	---	---	1.0	07/24/2019 09:00	07/25/2019 17:42	4363147
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		5.1690	5.0	ug/L	103	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 17:42	4363147
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		4.9290	5.0	ug/L	99	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 17:42	4363147
CCC	SS-Triphenylphosphate	525.2	N/A	---		5.4340	5.0	ug/L	109	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 17:42	4363147
CCC	Fluoranthene	525.2	0.1	---		5.1220	5.0	ug/L	102	65 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 17:42	4363147
CCC	IS-Chrysene-d12	525.2	N/A	---		1190000	1190000	ug/L	100	50 - 150	---	---	1.0	07/24/2019 09:00	07/25/2019 18:24	4363148
CCC	IS-Phenanthrene-d10	525.2	N/A	---		1672000	1672000	ug/L	100	50 - 150	---	---	1.0	07/24/2019 09:00	07/25/2019 18:24	4363148
CCC	IS-Pyrene-d10	525.2	N/A	---		1299000	1299000	ug/L	100	50 - 150	---	---	1.0	07/24/2019 09:00	07/25/2019 18:24	4363148
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		5.6910	5.0	ug/L	114	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 18:24	4363148
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		5.0860	5.0	ug/L	102	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 18:24	4363148
CCC	SS-Triphenylphosphate	525.2	N/A	---		5.1620	5.0	ug/L	103	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 18:24	4363148
CCC	Benzo(a)pyrene	525.2	0.02	---		5.2110	5.0	ug/L	104	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 18:24	4363148
CCC	Di(2-ethylhexyl)adipate	525.2	0.6	---		5.5080	5.0	ug/L	110	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 18:24	4363148
CCC	Di(2-ethylhexyl)phthalate	525.2	0.6	---		5.3970	5.0	ug/L	108	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 18:24	4363148
LFB	IS-Chrysene-d12	525.2	N/A	---		1006000	1190000	ug/L	85	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:07	4362495
LFB	IS-Phenanthrene-d10	525.2	N/A	---		1659000	1672000	ug/L	99	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:07	4362495
LFB	IS-Pyrene-d10	525.2	N/A	---		1316000	1299000	ug/L	101	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:07	4362495
LFB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		4.6850	5.0	ug/L	94	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:07	4362495
LFB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		3.9720	5.0	ug/L	79	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:07	4362495
LFB	SS-Triphenylphosphate	525.2	N/A	---		6.0830	5.0	ug/L	122	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:07	4362495
LFB	Fluoranthene	525.2	0.1	---		5.2040	5.0	ug/L	104	64 - 139	---	---	1.0	07/24/2019 09:00	07/25/2019 19:07	4362495
LFB	IS-Chrysene-d12	525.2	N/A	---		902906	1160000	ug/L	78	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:49	4362496
LFB	IS-Phenanthrene-d10	525.2	N/A	---		1290000	1588000	ug/L	77	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:49	4362496
LFB	IS-Pyrene-d10	525.2	N/A	---		1072000	1284000	ug/L	83	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:49	4362496
LFB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		5.1980	5.0	ug/L	104	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:49	4362496
LFB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		4.0830	5.0	ug/L	82	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:49	4362496
LFB	SS-Triphenylphosphate	525.2	N/A	---		5.3910	5.0	ug/L	108	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:49	4362496
LFB	Benzo(a)pyrene	525.2	0.02	---		4.4680	5.0	ug/L	89	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:49	4362496
LFB	Di(2-ethylhexyl)adipate	525.2	0.6	---		5.9920	5.0	ug/L	120	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:49	4362496
LFB	Di(2-ethylhexyl)phthalate	525.2	0.6	---		5.8730	5.0	ug/L	117	70 - 130	---	---	1.0	07/24/2019 09:00	07/25/2019 19:49	4362496
CCC	IS-Chrysene-d12	525.2	N/A	---		1140000	1140000	ug/L	100	50 - 150	---	---	1.0	07/24/2019 09:00	07/26/2019 05:39	4364990
CCC	IS-Phenanthrene-d10	525.2	N/A	---		1446000	1446000	ug/L	100	50 - 150	---	---	1.0	07/24/2019 09:00	07/26/2019 05:39	4364990
CCC	IS-Pyrene-d10	525.2	N/A	---		1166000	1166000	ug/L	100	50 - 150	---	---	1.0	07/24/2019 09:00	07/26/2019 05:39	4364990
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		4.7250	5.0	ug/L	94	70 - 130	---	---	1.0	07/24/2019 09:00	07/26/2019 05:39	4364990
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		5.3650	5.0	ug/L	107	70 - 130	---	---	1.0	07/24/2019 09:00	07/26/2019 05:39	4364990
CCC	SS-Triphenylphosphate	525.2	N/A	---		5.2670	5.0	ug/L	105	70 - 130	---	---	1.0	07/24/2019 09:00	07/26/2019 05:39	4364990
CCC	Acenaphthene	525.2	0.1	---		4.9100	5.0	ug/L	98	65 - 130	---	---	1.0	07/24/2019 09:00	07/26/2019 05:39	4364990
CCC	Acenaphthylene	525.2	0.1	---		5.2360	5.0	ug/L	105	70 - 130	---	---	1.0	07/24/2019 09:00	07/26/2019 05:39	4364990

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
LMB	Di(2-ethylhexyl)phthalate	525.2	0.6	---	<	0.6		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 09:51	4362483
LMB	Fluoranthene	525.2	0.1	---	<	0.1		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 09:51	4362483
LMB	Phenanthrene	525.2	0.1	---	<	0.1		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 09:51	4362483
LMB	Pyrene	525.2	0.1	---	<	0.1		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 09:51	4362483
FS	IS-Chrysene-d12	525.2	N/A	19-08803,JBPHH RedHill		1086000	1160000	ug/L	94	70 - 130	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	IS-Phenanthrene-d10	525.2	N/A	19-08803,JBPHH RedHill		1573000	1588000	ug/L	99	70 - 130	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	IS-Pyrene-d10	525.2	N/A	19-08803,JBPHH RedHill		1272000	1264000	ug/L	101	70 - 130	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	SS-4,4'-Dichlorobiphenyl	525.2	N/A	19-08803,JBPHH RedHill		5.3530	5.0	ug/L	107	70 - 130	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	19-08803,JBPHH RedHill		5.1480	5.0	ug/L	103	70 - 130	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	SS-Triphenylphosphate	525.2	N/A	19-08803,JBPHH RedHill		5.5930	5.0	ug/L	112	70 - 130	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	Acenaphthene	525.2	0.1	19-08803,JBPHH RedHill	<	0.1		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	Acenaphthylene	525.2	0.1	19-08803,JBPHH RedHill	<	0.1		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	Anthracene	525.2	0.1	19-08803,JBPHH RedHill	<	0.1		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	Benzo(a)pyrene	525.2	0.02	19-08803,JBPHH RedHill	<	0.02		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	Di(2-ethylhexyl)adipate	525.2	0.6	19-08803,JBPHH RedHill	<	0.6		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	Di(2-ethylhexyl)phthalate	525.2	0.6	19-08803,JBPHH RedHill	<	0.6		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	Fluoranthene	525.2	0.1	19-08803,JBPHH RedHill	<	0.1		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	Phenanthrene	525.2	0.1	19-08803,JBPHH RedHill	<	0.1		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344
FS	Pyrene	525.2	0.1	19-08803,JBPHH RedHill	<	0.1		ug/L	---	---	---	---	1.0	07/24/2019 09:00	07/26/2019 10:33	4362344

END OF REPORT

ENCLOSURE(3)

Red Hill - Lead Confirmation Samples (In Response to Sample Collected on 6/25, with 18 ug/L)

Sample Date: 7/10/2019

	Red Hill Shaft (RHMW 2254-01)		Red Hill Shaft Pumphead, Pre-Treatment (360-001)		Red Hill Chlorinator Building, Post Treatment (360-011)	
Hawaii Department of Health Lab						
Sample ID	C19-07-0054	C19-07-0054 duplicate	C19-07-0052A	C19-07-0052B	C19-07-0053A	C19-07-0053B
Result	**ND (<2.5 ug/L)**	**ND (<2.5 ug/L)**	**10.10 ug/L**	**ND (<2.5 ug/L)**	**ND (<2.5 ug/L)**	**ND (<2.5 ug/L)**
Eurofins Lab (Indiana)						
Sample ID	19-08271	19-08272	19-08249	19-08250	19-08251	19-08252
Result	**ND (<1.0 ug/L)**	**ND (<1.0 ug/L)**	**ND (<1.0 ug/L)**	**ND (<1.0 ug/L)**	**ND (<1.0 ug/L)**	**ND (<1.0 ug/L)**
Test America Lab (California)						
Sample ID	19-08269	19-08270	19-08253	19-08254	19-08255	19-08256
Result	**ND (<1.0 ug/L)**	**ND (<1.0 ug/L)**	**0.77 ug/L[j]**	**0.77 ug/L[j]**	**ND (<1.0ug/L)**	**ND (<1.0ug/L)**

Notes

j Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Sample Date: 7/15/2019

	Red Hill Shaft (RHMW 2254-01)		Red Hill Shaft Pumphead, Pre-Treatment (360-001)		Red Hill Chlorinator Building, Post Treatment (360-011)	
Hawaii Department of Health Lab						
Sample ID	C19-07-0104	C19-07-0104 Field Duplicate	C19-07-0091		C19-07-0092	
Result	**ND (<2.5 ug/L)**	**ND (<2.5 ug/L)**	**ND (<2.5 ug/L)**		**ND (<2.5 ug/L)**	
Eurofins Lab (Indiana)						
Sample ID	19-08363	19-08363 DUPLICATE	19-08359	19-08360	19-08361	19-08362
Result	**ND (<1.0 ug/L)**	**ND (<1.0 ug/L)**	**1.2 ug/L**	**1.3 ug/L**	**ND (<1.0ug/L)**	**ND (<1.0ug/L)**
Test America Lab (California)						
Sample ID	19-08369	19-08370	19-08365	19-08366	19-08367	19-08368
Result	**ND (<1.0 ug/L)**	**ND (<1.0 ug/L)**	**5.6 ug/L**	**1.1 ug/L**	**ND (<1.0 ug/L)**	**ND (<1.0 ug/L)**

MEMORANDUM

12 Jul 19

Packet No: 19-082530712

From: NAVFAC HAWAII, Environmental Services Laboratory, PRP411

To: Kyle Teraoka NAVFACHI OPBP6

Copy To: BRIAN YAMADA NAVFAC EV1

Subj: ☐ LABORATORY REPORTS
☐ MISCELLANEOUS CHARGES AND/OR CHAIN(S) OF CUSTODY SHEETS

Encl: Lab Number(s) 19-08253 , 19-08254 , 19-08255 , 19-08256

1. Thank you for using our laboratory to provide you with quality test results and/or services.

2. Please take a few minutes and check over the enclosures. If you believe anything is missing or in need of correction, let us know immediately and we will send you a correction as soon as possible.

3. Our goal is to better serve all our customers and we are concerned that you are receiving our services in the most efficient and timely manner possible. Please acknowledge receipt by signing below and returning this memo so we will know that you have received the enclosures. Also feel free to include any comments you have concerning our services. You may return this memo to us through the guardmail (NAVFAC HI PRP411) or fax it to 471-4534.

4. After the laboratory reports are archived, additional copies are available with an archival fee of $72.00/hr. If you have any questions, please contact us at 474-3704 or at the above fax number.

~~5. Laboratory certifies that the results meet all A2LA requirements unless noted in the "remarks" section of the report.~~ a 7/12/19

Duane Morita, Acting Laboratory Manager

TOTAL NO. OF PAGES: 15

To: NAVFAC HI PRP4

☐ Receipt acknowledged. Enclosures appear complete and acceptable.

☐ Comments/discrepancies noted.

_____

_____

☐ Please fax corrections/amendments to Fax#: _____
or guardmail to: _____

Customer's Signature/Date: _____

ENCLOSURE(4) -- 1

Table of Contents

Case Narrative

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-245631-1
SDG: 36-001, 360-011

Job ID: 440-245631-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Receipt

The samples were received on 7/11/2019 10:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 21.0° C.

Metals

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

Method Summary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-245631-1
SDG: 36-001, 360-011

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL IRV
200	Preparation, Metals	EPA	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-245631-1
SDG: 36-001, 360-011

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-557205/1-A
Matrix: Water
Analysis Batch: 557255

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 557205

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.50	ug/L		07/12/19 07:22	07/12/19 09:48	1

Lab Sample ID: LCS 440-557205/2-A
Matrix: Water
Analysis Batch: 557255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 557205

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	80.0	73.6		ug/L		92	85 - 115

Lab Sample ID: 440-245631-1 MS
Matrix: Water
Analysis Batch: 557255

Client Sample ID: 19-08253
Prep Type: Total/NA
Prep Batch: 557205

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.77	J	80.0	73.9		ug/L		91	70 - 130

Lab Sample ID: 440-245631-1 MSD
Matrix: Water
Analysis Batch: 557255

Client Sample ID: 19-08253
Prep Type: Total/NA
Prep Batch: 557205

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.77	J	80.0	76.1		ug/L		94	70 - 130	3	20

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

Glossary

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Eurofins TestAmerica, Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614-5843
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

eurofins

Regulatory Program: ☑ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Duane Morita	Site Contact:	Date:	COC No:
NAVFAC HAWAII	Email: duane.morita@navy.mil	Lab Contact: Sheri Fama	Carrier:	1 of 1 COCs
400 MARSHALL RD	Tel/Fax: 808-474-3704 / 808-471-4534			TALS Project #:
JBPHH, HI 96860	Analysis Turnaround Time			Sampler: K. Miyaki
(808) 474-3704 Phone	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(808) 471-4534 FAX	TAT if different from Below			Walk-in Client:
Project Name: Red Hill	☐ 2 weeks			Lab Sampling:
Site: 360-001, 360-011	☐ 1 week			
Email invoice to stuart.kaneshiro@navy.mil for CC payment	☐ 2 days			Job / SDG No.:
	☑ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Lead (EPA 200.8)	Sample Specific Notes:
19-08253	7/10/2019	1007 HST	G	Water	1			X	
19-08254	7/10/2019	1007 HST	G	Water	1			X	
19-08255	7/10/2019	1040 HST	G	Water	1			X	
19-08256	7/10/2019	1040 HST	G	Water	1			X	
								4	

7/11/19 LB

440-245631 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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 & Comments: Laboratory must be certified by the Hawaii State DOH Drinking Water Program.
Please provide verbal results to Mr. Aaron Poentis at 808-778-8424.

no ice

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No..	Cooler Temp (°C): Obs'd: 20.8 Corr'd 21.0	Therm ID No 1R-88
Relinquished by: Stuart Kaneshiro	Company: NAVFAC HAWAII	Date/Time: 7/10/19 1515	Received by: Company: FEDEX Date/Time:
Relinquished by:	Company: FEDEX	Date/Time:	Received by: Company Date/Time:
Relinquished by:	Company.	Date/Time	Received in Laboratory by: Company: TAL IRV Date/Time: 7/11/19 10:28

N/CS 7756 8399 ~~3320~~ AS 3322

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Naval Facilities Engineering Command, Hawaii, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON: 515100102019	ESM:	POC: Kyle Teraoka	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Teraoka		Copy To: Brian Yamada	Copy To:	
NAVFAC HI OPBP6		NAVFAC HI EV11		
kyle.teraoka@navy.mil		brian.m.yamada@navy.mil		

Sample ID	Sample Description	Matrix Code	Sampling Date	Sampling Time	Container Vol	Container Type	Analysis Required	Preservative / Res. Cl (ppm)	FOR LAB USE ONLY pH	FOR LAB USE ONLY Lab Number	FOR LAB USE ONLY Ext.	FOR LAB USE ONLY Lctn.	Cond. A	Cond. U
Joint Base Pearl Harbor-Hickam (360-001)	Red Hill Shaft Pumphead, WL001	Water	7/10/19	1007	125mL	Plastic	Lead (200.8)			19-08253	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-001)	Red Hill, WL001, Sampling Duplicate	Water	7/10/19	1007	125mL	Plastic	Lead (200.8)			19-08254	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Tap outside the Cl2 Bldg	Water	7/10/19	1040	125mL	Plastic	Lead (200.8)	0.2		19-08255	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Sampling Duplicate	Water	7/10/19	1046	125mL	Plastic	Lead (200.8)	0.2		19-08256	1	C	✓	

Sampling Information	Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill	Transported/Stored in: Hand Carry	Cooler Temp: Ambient °C	[ ] Return to customer	[✓] Received with CoC
Sampler(s): (Print names clearly) K. Miyaki	Air bill/Carrier ID#:		[✓] Dispose at 60 Days	[ ] Received with Custody Seals
			[ ] Archive for ____ Days	[ ] Seals Required [ ] Seals Intact
			[ ] Contact before disposal	[✓] Labels and CoC agree

Remarks: Any EPA approved drinking water method for organic chemicals, 40 CFR 141.24, may be used.

Laboratory must certified by the Hawaii State DOH Drinking Water Program.

Relinquished By: (Print clearly & Sign)	Date	Time	Received By: (Print clearly & Sign)	Date	Time
K. Miyaki K. Miyaki	7/10/19	1408	L. Willey	7/10/19	1400

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-245733-1
Laboratory Sample Delivery Group: Shaft
Client Project/Site: Red Hill

For:
NAVFAC Hawaii
Bldg 1423, Central Avenue
Pearl Harbor, Hawaii 96860

Attn: Duane Morita

Authorized for release by:
7/16/2019 8:40:35 AM

Sheri Fama, Project Manager I
(949)260-3274
sheri.fama@testamericainc.com

Sample Summary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-245733-1
SDG: Shaft

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-245733-1	19-08269	Water	07/10/19 16:45	07/12/19 09:45	
440-245733-2	19-08270	Water	07/10/19 16:45	07/12/19 09:45	

Client Sample Results

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-245733-1
SDG: Shaft

Client Sample ID: 19-08269

Date Collected: 07/10/19 16:45
Date Received: 07/12/19 09:45

Lab Sample ID: 440-245733-1
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.50	ug/L		07/15/19 15:46	07/15/19 20:57	1

Client Sample ID: 19-08270

Date Collected: 07/10/19 16:45
Date Received: 07/12/19 09:45

Lab Sample ID: 440-245733-2
Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.50	ug/L		07/15/19 15:46	07/15/19 21:01	1

Lab Chronicle

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-245733-1
SDG: Shaft

Client Sample ID: 19-08269
Date Collected: 07/10/19 16:45
Date Received: 07/12/19 09:45

Lab Sample ID: 440-245733-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200			25 mL	25 mL	557622	07/15/19 15:46	BV	TAL IRV
Total/NA	Analysis	200.8		1			557669	07/15/19 20:57	P1R	TAL IRV

Client Sample ID: 19-08270
Date Collected: 07/10/19 16:45
Date Received: 07/12/19 09:45

Lab Sample ID: 440-245733-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200			25 mL	25 mL	557622	07/15/19 15:46	BV	TAL IRV
Total/NA	Analysis	200.8		1			557669	07/15/19 21:01	P1R	TAL IRV

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Association Summary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-245733-1
SDG: Shaft

Metals

Prep Batch: 557622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-245733-1	19-08269	Total/NA	Water	200	
440-245733-2	19-08270	Total/NA	Water	200	
MB 440-557622/1-A	Method Blank	Total/NA	Water	200	
LCS 440-557622/2-A	Lab Control Sample	Total/NA	Water	200	
440-245427-A-2-B MS	Matrix Spike	Total/NA	Water	200	
440-245427-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	200	

Analysis Batch: 557669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-245733-1	19-08269	Total/NA	Water	200.8	557622
440-245733-2	19-08270	Total/NA	Water	200.8	557622
MB 440-557622/1-A	Method Blank	Total/NA	Water	200.8	557622
LCS 440-557622/2-A	Lab Control Sample	Total/NA	Water	200.8	557622
440-245427-A-2-B MS	Matrix Spike	Total/NA	Water	200.8	557622
440-245427-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	557622

Accreditation/Certification Summary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-245733-1
SDG: Shaft

Laboratory: Eurofins TestAmerica, Irvine

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Hawaii	State Program	9	N/A	01-29-20

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

Login Sample Receipt Checklist

Client: NAVFAC Hawaii

Job Number: 440-245733-1
SDG Number: Shaft

Login Number: 245733
List Number: 1
Creator: Bonta, Lucia F

List Source: Eurofins TestAmerica, Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

MEMORANDUM

26 Jul 19

Packet No: 19-082490726

From: NAVFAC HAWAII, Environmental Services Laboratory, PRP411

To: Kyle Teraoka NAVFACHI OPBP6

Copy To: BRIAN YAMADA NAVFAC EV1

Subj: ☐ LABORATORY REPORTS
☐ MISCELLANEOUS CHARGES AND/OR CHAIN(S) OF CUSTODY SHEETS

Encl: Lab Number(s) 19-08249 , 19-08250 , 19-08251 , 19-08252

1. Thank you for using our laboratory to provide you with quality test results and/or services.

2. Please take a few minutes and check over the enclosures. If you believe anything is missing or in need of correction, let us know immediately and we will send you a correction as soon as possible.

3. Our goal is to better serve all our customers and we are concerned that you are receiving our services in the most efficient and timely manner possible. Please acknowledge receipt by signing below and returning this memo so we will know that you have received the enclosures. Also feel free to include any comments you have concerning our services. You may return this memo to us through the guardmail (NAVFAC HI PRP411) or fax it to 471-4534.

4. After the laboratory reports are archived, additional copies are available with an archival fee of $72.00/hr. If you have any questions, please contact us at 474-3704 or at the above fax number.

~~5. Laboratory certifies that the results meet all A2LA requirements unless noted in the "remarks" section of the report.~~ 7/26/19

Duane Morita, Acting Laboratory Manager

TOTAL NO. OF PAGES: 13

To: NAVFAC HI PRP4

☐ Receipt acknowledged. Enclosures appear complete and acceptable.

☐ Comments/discrepancies noted.

☐ Please fax corrections/amendments to Fax#: _____
or guardmail to: _____

Customer's Signature/Date: _____

STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 03/14/2019

Client Name: NAVFAC Hawaii Report #: 458154

Sampling Point: 19-08249,JBPHH Red Hill360-001 PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	—	07/11/19 17:13	4349819

Sampling Point: 19-08250, Red Hill 360-001 DUP PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	—	07/11/19 17:14	4349820

Sampling Point: 19-08251,JBPHH Red Hill360-011 PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	—	07/11/19 17:18	4349821

Sampling Point: 19-08252, Red Hill 360-011 DUP PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	—	07/11/19 17:20	4349822

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

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110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 376317
Batch # 458154

www.eatonanalytical.com

Shaded area for EEA use only

CHAIN OF CUSTODY RECORD

REPORT TO:	SAMPLER (Signature)	PWS ID #	STATE (sample origin)	PROJECT NAME	PO#
NAVFAC Hawaii		HI0000360	HI		

BILL TO:	COMPLIANCE MONITORING	Yes	No	POPULATION SERVED	SOURCE WATER
NAVFAC Hawaii		X			GW

	LAB Number	COLLECTION DATE	TIME	AM	PM	SAMPLING SITE	TEST NAME	SAMPLE REMARKS	CHLORINATED YES	CHLORINATED NO	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
1	4349819	07/10/19	1007	X		19-08249, JBPHH Red Hill, 360-001	Lead (200.8) pH<2			X	1	DW	SP
2													
3	820	07/10/19	1007	X		19-08250, JBPHH Red Hill, 360-001, Duplicate	Lead (200.8) pH<2			X	1	DW	SP
4													
5	821	07/10/19	1040	X		19-08251, JBPHH Red Hill, 360-011	Lead (200.8) pH<2		X		1	DW	SP
6													
7	822	07/10/19	1040	X		19-08252, JBPHH Red Hill, 360-011, Duplicate	Lead (200.8) pH<2		X		1	DW	SP
8													
9													
10						Please call Aaron Poentis at (808) 778-8424 with							
11						the results.							
12													
13													
14													

07/11/2019 KD

RUSH

RELINQUISHED BY:(Signature)	DATE	TIME AM/PM	RECEIVED BY:(Signature)	DATE	TIME AM/PM
	10Jul19	1700		7/11	1700
RELINQUISHED BY:(Signature)	DATE	TIME AM/PM	RECEIVED BY:(Signature)	DATE	TIME AM/PM
	7/11	1611			
RELINQUISHED BY:(Signature)	DATE	TIME AM/PM	RECEIVED FOR LABORATORY BY:	DATE	TIME AM/PM
			7-11-19		1611

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS: Client Cont.

CONDITIONS UPON RECEIPT (check one): ___ Iced: Wet/Blue X Ambient ___ °C Upon Receipt ___ N/A

MATRIX CODES:

DW-DRINKING WATER
RW-REAGENT WATER
GW-GROUND WATER
EW-EXPOSURE WATER
SW-SURFACE WATER
PW-POOL WATER
WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written (15 working days)	0%	IV* = Immediate Verbal (3 working days)	100%
RV* = Rush Verbal (5 working days)	50%	IW* = Immediate Written (3 working days)	125%
RW* = Rush Written (5 working days)	75%	SP* = Weekend, Holiday	CALL
		STAT* = Less than 48 hours	CALL

* Please call, expedited service not available for all testing

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.

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Eurofins Eaton Analytical
Run Log
Run ID: **261737** Method: **200.8**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	4350010		RW	FQ	07/11/2019 17:04	
ICV	4350011		RW	FQ	07/11/2019 17:05	
ICB	4350012		RW	FQ	07/11/2019 17:07	
LRB	4350013		RW	FQ	07/11/2019 17:10	
LFB	4350014		RW	FQ	07/11/2019 17:11	
FS	4349819	19-08249,JBPHH Red Hill360-001	DW	FQ	07/11/2019 17:13	
FS	4349820	19-08250, Red Hill 360-001 DUP	DW	FQ	07/11/2019 17:14	
MS	4350015	19-08250, Red Hill 360-001 DUP	DW	FQ	07/11/2019 17:16	
MSD	4350016	19-08250, Red Hill 360-001 DUP	DW	FQ	07/11/2019 17:17	
FS	4349821	19-08251,JBPHH Red Hill360-011	DW	FQ	07/11/2019 17:18	
FS	4349822	19-08252, Red Hill 360-011 DUP	DW	FQ	07/11/2019 17:20	
CCV	4350017		RW	FQ	07/11/2019 17:21	
CCB	4350018		RW	FQ	07/11/2019 17:23	

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCV	Continuing Cali. Verification		
CCB	Continuing Calibration Blank		
FS	Field Sample		
ICV	Initial Cali. Verification		
ICB	Initial Calibration Blank		
LFB	Laboratory Fortified Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
QCS	Quality Control Sample		

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Naval Facilities Engineering Command, Hawaii, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON: 515100102019	ESM:	POC: Kyle Teraoka	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Teraoka		Copy To: Brian Yamada	Copy To:	
NAVFAC HI OPBP6		NAVFAC HI EV11		
kyle.teraoka@navy.mil		brian.m.yamada@navy.mil		

Sample ID	Sample Description	Matrix Code	Sampling Date	Sampling Time	Container Vol	Container Type	Analysis Required	Preservative / Res. Cl (ppm)	FOR LAB USE ONLY pH	FOR LAB USE ONLY Lab Number	FOR LAB USE ONLY Ext.	FOR LAB USE ONLY Lctn.	Cond. A	Cond. U
Joint Base Pearl Harbor-Hickam (360-001)	Red Hill Shaft Pumphead, WL001	Water	7/10/19	1007	125mL	Plastic	Lead (200.8)			19-05249	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-001)	Red Hill, WL001, Sampling Duplicate	Water	7/10/19	1007	125mL	Plastic	Lead (200.8)			19-08250	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Tap outside the Cl2 Bldg	Water	7/10/19	1040	125mL	Plastic	Lead (200.8)	0.2		19-08251	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Sampling Duplicate	Water	7/10/19	1040	125mL	Plastic	Lead (200.8)	0.2		19-08252	1	C	✓	

Sampling Information	Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill	Transported/Stored in: Hand Carry	Cooler Temp: Ambient °C	[ ] Return to customer	[✓] Received with CoC
Sampler(s): (Print names clearly) K. Miyaki	Air bill/Carrier ID#:		[✓] Dispose at 60 Days	[ ] Received with Custody Seals
			[ ] Archive for ____ Days	[ ] Seals Required [ ] Seals Intact
			[ ] Contact before disposal	[✓] Labels and CoC agree

Remarks: Any EPA approved drinking water method for organic chemicals, 40 CFR 141.24, may be used.

Laboratory must certified by the Hawaii State DOH Drinking Water Program.

Relinquished By: (Print clearly & Sign)	Date	Time	Received By: (Print clearly & Sign)	Date	Time
K. Miyaki K. Miyaki	7/10/19	1410	L. Lavery	7/10/19	1400

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LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

eurofins | Eaton Analytical

110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: NAVFAC Hawaii

Attn: Duane Morita
Environmental Lab, Code PRJ411
Building 1423, Central Avenue
JBPHH, HI 96860

Report: 458409
Priority: Immediate Verbal
Status: Final
PWS ID: HI0000360

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4352402	19-08271,JBPHHRedHillShaft 2254-01	200.8	07/10/19 16:45	Client	07/15/19 09:30
4352403	19-08272,JBPHHRedHillShaft DUP	200.8	07/10/19 16:45	Client	07/15/19 09:30

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Kelly Blackburn at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Kelly Blackburn ASA I

Authorized Signature | Title | 07/19/2019 Date

Client Name: NAVFAC Hawaii
Report #: 458409

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Naval Facilities Engineering Command, Hawaii, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON: 515100102019	ESM:	POC: Kyle Teraoka	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Teraoka		Copy To: Brian Yamada	Copy To:	
NAVFAC HI OPBP6		NAVFAC HI EV11		
kyle.teraoka@navy.mil		brian.m.yamada@navy.mil		

Sample ID	Sample Description	Matrix Code	Sampling Date	Sampling Time	Container Vol	Container Type	Analysis Required	Preservative / Res. Cl (ppm)	FOR LAB USE ONLY pH	Lab Number	Ext.	Lctn.	Cond. A	Cond. U
Joint Base Pearl Harbor-Hickam	Red Hill Shaft, 2254-01	Water	7/10/19	1645	125mL	Plastic	Lead (200.8)	HNO_3, pH< 2		19-08271	1	C	✓	
Joint Base Pearl Harbor-Hickam	Red Hill Shaft, 2254-01 Sampling Duplicate	Water	7/10/19	1645	125mL	Plastic	Lead (200.8)	HNO_3, pH< 2		19-08272	1	C	✓	

Sampling Information	Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill	Transported/Stored in: Hand Carry	Cooler Temp: Ambient °C	[ ] Return to customer	[X] Received with CoC
Sampler(s): (Print names clearly) K. Miyaki, MH, OH On 7/10/19	Air bill/Carrier ID#:		[X] Dispose at 60 Days	[ ] Received with Custody Seals
			[ ] Archive for ____ Days	[ ] Seals Required [ ] Seals Intact
			[ ] Contact before disposal	[X] Labels and CoC agree

Remarks: Any EPA approved drinking water method for organic chemicals, 40 CFR 141.24, may be used.

Laboratory must certified by the Hawaii State DOH Drinking Water Program.

Relinquished By: (Print clearly & Sign)	Date	Time	Received By: (Print clearly & Sign)	Date	Time
K. Miyaki K Miyaki	7/11/19	0845	L. Lahey	7/11/19	0845

NAVFAC HI COC, REV. 1: Eff. Date 11 Feb 2010

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Eurofins Eaton Analytical
Run Log
Run ID: **261874** Method: **200.8**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	4352800		RW	FQ	07/16/2019 11:07	
ICV	4352801		RW	FQ	07/16/2019 11:09	
ICB	4352802		RW	FQ	07/16/2019 11:12	
LRB	4352804		RW	FQ	07/16/2019 11:16	
LFB	4352805		RW	FQ	07/16/2019 11:19	
CCV	4352806		RW	FQ	07/16/2019 11:48	
CCB	4352807		RW	FQ	07/16/2019 11:50	
FS	4352402	19-08271,JBPHHRedHillShaft	DW	FQ	07/16/2019 11:53	
FS	4352403	19-08272,JBPHHRedHillShaft	DW	FQ	07/16/2019 11:55	
CCV	4352808		RW	FQ	07/16/2019 12:18	
CCB	4352809		RW	FQ	07/16/2019 12:20	

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCB	IS-Bismuth	200.8	N/A	---		1.0440	1.0	N/A	104	60 - 125	---	---	1.0	---	07/16/2019 12:20	4352809
CCB	Lead	200.8	1.0	---	<	1.0		ug/L	---	---	---	---	1.0	---	07/16/2019 12:20	4352809
CCB	IS-Scandium	200.8	N/A	---		0.9933	1.0	N/A	99	60 - 125	---	---	1.0	---	07/16/2019 12:20	4352809
CCB	IS-Yttrium	200.8	N/A	---		1.0058	1.0	N/A	101	60 - 125	---	---	1.0	---	07/16/2019 12:20	4352809

END OF REPORT

MEMORANDUM

26 Jul 19

Packet No: 19-083590726

From: NAVFAC HAWAII, Environmental Services Laboratory, PRP411

To: Kyle Teraoka NAVFACHI OPBP6

Copy To: BRIAN YAMADA NAVFAC EV1

Subj: ☐ LABORATORY REPORTS
☐ MISCELLANEOUS CHARGES AND/OR CHAIN(S) OF CUSTODY SHEETS

Encl: Lab Number(s) 19-08359 , 19-08360 , 19-08361 , 19-08362 , 19-08363 , 19-08364

1. Thank you for using our laboratory to provide you with quality test results and/or services.

2. Please take a few minutes and check over the enclosures. If you believe anything is missing or in need of correction, let us know immediately and we will send you a correction as soon as possible.

3. Our goal is to better serve all our customers and we are concerned that you are receiving our services in the most efficient and timely manner possible. Please acknowledge receipt by signing below and returning this memo so we will know that you have received the enclosures. Also feel free to include any comments you have concerning our services. You may return this memo to us through the guardmail (NAVFAC HI PRP411) or fax it to 471-4534.

4. After the laboratory reports are archived, additional copies are available with an archival fee of $72.00/hr. If you have any questions, please contact us at 474-3704 or at the above fax number.

~~5. Laboratory certifies that the results meet all A2LA requirements unless noted in the "remarks" section of the report.~~ 7/26/19

Duane Morita, Acting Laboratory Manager

TOTAL NO. OF PAGES: 14

To: NAVFAC HI PRP4

☐ Receipt acknowledged. Enclosures appear complete and acceptable.

☐ Comments/discrepancies noted.

_____

_____

☐ Please fax corrections/amendments to Fax#: _____

or guardmail to: _____

Customer's Signature/Date: _____

ENCLOSURE(5) 1

STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 03/14/2019

Client Name: NAVFAC Hawaii Report #: 458651

Sampling Point: 19-08359,JBPHH Red Hill 360-001 PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	1.2	ug/L	---	07/17/19 15:00	4354767

Sampling Point: 19-08360,JBPHH Red Hill 001Dup PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	1.3	ug/L	---	07/17/19 15:02	4354768

Sampling Point: 19-08361,JBPHH Red Hill 360-011 PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	07/17/19 15:06	4354769

Sampling Point: 19-08362,JBPHH Red Hill 360-011Dup PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	07/17/19 15:08	4354770

Sampling Point: 19-08363,JBPHH Red Hill SH2254-01 PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	07/17/19 15:09	4354771

Sampling Point: 19-08363-JBPHH Red Hill SHDup PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	07/17/19 15:11	4354772

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

eurofins | Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 376038
Batch # 458651

www.eatonanalytical.com

Shaded area for EEA use only

CHAIN OF CUSTODY RECORD

Page 1 of 1

REPORT TO:	SAMPLER (Signature)	PWS ID #	STATE (sample origin)	PROJECT NAME	PO#
NAVFAC Hawaii		HI0000360	HI		

BILL TO:	COMPLIANCE MONITORING	Yes	No	POPULATION SERVED	SOURCE WATER
NAVFAC Hawaii		X			GW

	LAB Number	COLLECTION DATE	TIME	AM	PM	SAMPLING SITE	TEST NAME	SAMPLE REMARKS	CHLORINATED YES	CHLORINATED NO	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
1	458767	07/15/19	0902	X		19-08359, JBPHH Red Hill , 360-001	Lead (200.8) pH <2			X	1	DW	SP
2													
3	768	07/15/19	0902	X		19-08360, JBPHH Red Hill, 360-001, Duplicate	Lead (200.8) pH <2			X	1	DW	SP
4													
5	769	07/15/19	0931	X		19-08361, JBPHH Red Hill, 360-011	Lead (200.8) pH <2		X		1	DW	SP
6													
7	770	07/15/19	0931	X		19-08362, JBPHH Red Hill, 360-011, Duplicate	Lead (200.8) pH <2 RD 7/17/19		X		1	DW	SP
8													
9	771	07/15/19	0903	X		19-08363, JBPHH Red Hill Shaft, 2254-01	Lead (200.8) pH <2			X	1	DW	SP
10													
11	V 772	07/15/19	0903	X		19-08364, JBPHH Red Hill Shaft, Duplicate	Lead (200.8) pH <2			X	1	DW	SP
12													
13						Please call Aaron Poentis at (808) 778-8424 with							
14						the results.							

RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
	15Jul2019	1400 AM PM	Fedex		AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
		AM PM			AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME
		AM PM	Rhonda Dunn	7/17/19	0930 AM PM

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS

Client Provided Sample Container

CONDITIONS UPON RECEIPT (check one):

___ Iced: Wet/Blue (Ambient) ___ °C Upon Receipt ___ N/A

MATRIX CODES:

DW-DRINKING WATER
RW-REAGENT WATER
GW-GROUND WATER
EW-EXPOSURE WATER
SW-SURFACE WATER
PW-POOL WATER
WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written (15 working days)	0%	IV* = Immediate Verbal (3 working days)	100%
RV* = Rush Verbal: (5 working days)	50%	IW* = Immediate Written: (3 working days)	125%
RW* = Rush Written (5 working days)	75%	SP* = Weekend, Holiday	CALL
		STAT* = Less than 48 hours	CALL

* Please call, expedited service not available for all testing.

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.

eurofins | Eaton Analytical

Eurofins Eaton Analytical
Run Log
Run ID: **261976** Method: **200.8**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	4355578		RW	FQ	07/17/2019 14:50	
ICV	4355579		RW	FQ	07/17/2019 14:52	
ICB	4355580		RW	FQ	07/17/2019 14:53	
LRB	4352810		RW	FQ	07/17/2019 14:56	
LFB	4352811		RW	FQ	07/17/2019 14:59	
FS	4354767	19-08359,360-001	DW	FQ	07/17/2019 15:00	
FS	4354768	19-08360,001Dup	DW	FQ	07/17/2019 15:02	
MS	4355581	19-08360,001Dup	DW	FQ	07/17/2019 15:03	
MSD	4355582	19-08360,001Dup	DW	FQ	07/17/2019 15:05	
FS	4354769	19-08361,360-011	DW	FQ	07/17/2019 15:06	
FS	4354770	19-08362,360-011Dup	DW	FQ	07/17/2019 15:08	
FS	4354771	19-08363,SH2254-01	DW	FQ	07/17/2019 15:09	
FS	4354772	19-08363-SH2254Dup	DW	FQ	07/17/2019 15:11	
CCV	4352814		RW	FQ	07/17/2019 15:18	
CCB	4352815		RW	FQ	07/17/2019 15:19	
CCV	4352828		RW	FQ	07/17/2019 15:38	
CCB	4352829		RW	FQ	07/17/2019 15:39	
LRB	4352826		RW	FQ	07/17/2019 15:41	
LFB	4352827		RW	FQ	07/17/2019 15:42	
CCV	4352830		RW	FQ	07/17/2019 16:01	
CCB	4352831		RW	FQ	07/17/2019 16:03	
CCV	4355589		RW	FQ	07/17/2019 16:21	
CCB	4355590		RW	FQ	07/17/2019 16:23	

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCV	Lead	200.8	1.0	—		51.1148	50.0	ug/L	102	85 - 115	—	—	1.0	—	07/17/2019 15:18	4352814
CCV	IS-Yttrium	200.8	N/A	—		1.0313	1.0	N/A	103	60 - 125	—	—	1.0	—	07/17/2019 15:18	4352814
CCB	IS-Bismuth	200.8	N/A	—		1.0114	1.0	N/A	101	60 - 125	—	—	1.0	—	07/17/2019 15:19	4352815
CCB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	07/17/2019 15:19	4352815
CCB	IS-Yttrium	200.8	N/A	—		1.0225	1.0	N/A	102	60 - 125	—	—	1.0	—	07/17/2019 15:19	4352815
CCV	IS-Bismuth	200.8	N/A	—		1.0125	1.0	N/A	101	60 - 125	—	—	1.0	—	07/17/2019 15:38	4352828
CCV	Lead	200.8	1.0	—		51.0480	50.0	ug/L	102	85 - 115	—	—	1.0	—	07/17/2019 15:38	4352828
CCV	IS-Yttrium	200.8	N/A	—		1.0323	1.0	N/A	103	60 - 125	—	—	1.0	—	07/17/2019 15:38	4352828
CCB	IS-Bismuth	200.8	N/A	—		0.9930	1.0	N/A	99	60 - 125	—	—	1.0	—	07/17/2019 15:39	4352829
CCB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	07/17/2019 15:39	4352829
CCB	IS-Yttrium	200.8	N/A	—		1.0202	1.0	N/A	102	60 - 125	—	—	1.0	—	07/17/2019 15:39	4352829
LRB	IS-Bismuth	200.8	N/A	—		0.9960	1.0	N/A	100	60 - 125	—	—	1.0	—	07/17/2019 15:41	4352826
LRB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	07/17/2019 15:41	4352826
LRB	IS-Yttrium	200.8	N/A	—		1.0120	1.0	N/A	101	60 - 125	—	—	1.0	—	07/17/2019 15:41	4352826
LFB	IS-Bismuth	200.8	N/A	—		0.9956	1.0	N/A	100	60 - 125	—	—	1.0	—	07/17/2019 15:42	4352827
LFB	Lead	200.8	1.0	—		51.0302	50.0	ug/L	102	85 - 115	—	—	1.0	—	07/17/2019 15:42	4352827
LFB	IS-Yttrium	200.8	N/A	—		1.0191	1.0	N/A	102	60 - 125	—	—	1.0	—	07/17/2019 15:42	4352827
CCV	IS-Bismuth	200.8	N/A	—		0.9754	1.0	N/A	98	60 - 125	—	—	1.0	—	07/17/2019 16:01	4352830
CCV	Lead	200.8	1.0	—		51.0539	50.0	ug/L	102	85 - 115	—	—	1.0	—	07/17/2019 16:01	4352830
CCV	IS-Yttrium	200.8	N/A	—		1.0178	1.0	N/A	102	60 - 125	—	—	1.0	—	07/17/2019 16:01	4352830
CCB	IS-Bismuth	200.8	N/A	—		0.9858	1.0	N/A	99	60 - 125	—	—	1.0	—	07/17/2019 16:03	4352831
CCB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	07/17/2019 16:03	4352831
CCB	IS-Yttrium	200.8	N/A	—		1.0139	1.0	N/A	101	60 - 125	—	—	1.0	—	07/17/2019 16:03	4352831
CCV	IS-Bismuth	200.8	N/A	—		0.9665	1.0	N/A	97	60 - 125	—	—	1.0	—	07/17/2019 16:21	4355589
CCV	Lead	200.8	1.0	—		51.1248	50.0	ug/L	102	85 - 115	—	—	1.0	—	07/17/2019 16:21	4355589
CCV	IS-Yttrium	200.8	N/A	—		0.9960	1.0	N/A	100	60 - 125	—	—	1.0	—	07/17/2019 16:21	4355589
CCB	IS-Bismuth	200.8	N/A	—		0.9493	1.0	N/A	95	60 - 125	—	—	1.0	—	07/17/2019 16:23	4355590
CCB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	07/17/2019 16:23	4355590
CCB	IS-Yttrium	200.8	N/A	—		0.9897	1.0	N/A	99	60 - 125	—	—	1.0	—	07/17/2019 16:23	4355590

END OF REPORT

MEMORANDUM

18 Jul 19

Packet No: 19-083650718

From: NAVFAC HAWAII, Environmental Services Laboratory, PRP411

To: Kyle Teraoka NAVFACHI OPBP6

Copy To: BRIAN YAMADA NAVFAC EV1

Subj: ☐ LABORATORY REPORTS
☐ MISCELLANEOUS CHARGES AND/OR CHAIN(S) OF CUSTODY SHEETS

Encl: Lab Number(s) 19-08365 , 19-08366 , 19-08367 , 19-08368 , 19-08369 , 19-08370

1. Thank you for using our laboratory to provide you with quality test results and/or services.

2. Please take a few minutes and check over the enclosures. If you believe anything is missing or in need of correction, let us know immediately and we will send you a correction as soon as possible.

3. Our goal is to better serve all our customers and we are concerned that you are receiving our services in the most efficient and timely manner possible. Please acknowledge receipt by signing below and returning this memo so we will know that you have received the enclosures. Also feel free to include any comments you have concerning our services. You may return this memo to us through the guardmail (NAVFAC HI PRP411) or fax it to 471-4534.

4. After the laboratory reports are archived, additional copies are available with an archival fee of $72.00/hr. If you have any questions, please contact us at 474-3704 or at the above fax number.

~~5. Laboratory certifies that the results meet all A2LA requirements unless noted in the "remarks" section of the report.~~ 7/18/19

Duane Morita, Acting Laboratory Manager

TOTAL NO. OF PAGES: 16

To: NAVFAC HI PRP4

☐ Receipt acknowledged. Enclosures appear complete and acceptable.

☐ Comments/discrepancies noted.

_____

_____

☐ Please fax corrections/amendments to Fax#: _____
or guardmail to: _____

Customer's Signature/Date: _____

Table of Contents

Case Narrative

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-246017-1
SDG: 360-001, 360-011, Shaft

Job ID: 440-246017-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-246017-1

Comments
No additional comments.

Receipt
The samples were received on 7/17/2019 10:30 AM; the samples arrived in good condition and properly preserved. The temperature of the cooler at receipt was 22.1° C.

Metals
The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of 3: 19-08369 (440-246017-5) and 19-08370 (440-246017-6). The sample(s) was preserved to the appropriate pH in the laboratory.

0.5mL HNO3
7/17/19 @12:20
HNO3 lot# 1118120

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

Method Summary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-246017-1
SDG: 360-001, 360-011, Shaft

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL IRV
200.2	Preparation, Total Recoverable Metals	EPA	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-558004/1-A
Matrix: Water
Analysis Batch: 558098

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 558004

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.50	ug/L		07/17/19 12:19	07/17/19 18:03	1

Lab Sample ID: LCS 440-558004/2-A
Matrix: Water
Analysis Batch: 558098

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 558004

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	80.0	79.2		ug/L		99	85 - 115

Lab Sample ID: 440-246017-1 MS
Matrix: Water
Analysis Batch: 558098

Client Sample ID: 19-08365
Prep Type: Total Recoverable
Prep Batch: 558004

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.6		80.0	83.4		ug/L		97	70 - 130

Lab Sample ID: 440-246017-1 MSD
Matrix: Water
Analysis Batch: 558098

Client Sample ID: 19-08365
Prep Type: Total Recoverable
Prep Batch: 558004

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	5.6		80.0	81.9		ug/L		95	70 - 130	2	20

Lab Sample ID: MB 440-558178/1-A
Matrix: Water
Analysis Batch: 558308

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 558178

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.50	ug/L		07/18/19 08:59	07/18/19 14:45	1

Lab Sample ID: LCS 440-558178/2-A
Matrix: Water
Analysis Batch: 558308

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 558178

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	80.0	76.3		ug/L		95	85 - 115

Lab Sample ID: LCSD 440-558178/3-A
Matrix: Water
Analysis Batch: 558308

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 558178

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	80.0	78.2		ug/L		98	85 - 115	2	20

Lab Sample ID: 550-125720-G-1-B MS
Matrix: Water
Analysis Batch: 558308

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 558178

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		80.0	74.7		ug/L		93	70 - 130

QC Association Summary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-246017-1
SDG: 360-001, 360-011, Shaft

Metals

Prep Batch: 558004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-246017-1	19-08365	Total Recoverable	Water	200.2	
440-246017-2	19-08366	Total Recoverable	Water	200.2	
440-246017-3	19-08367	Total Recoverable	Water	200.2	
440-246017-4	19-08368	Total Recoverable	Water	200.2	
MB 440-558004/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-558004/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-246017-1 MS	19-08365	Total Recoverable	Water	200.2	
440-246017-1 MSD	19-08365	Total Recoverable	Water	200.2	

Analysis Batch: 558098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-246017-1	19-08365	Total Recoverable	Water	200.8	558004
440-246017-2	19-08366	Total Recoverable	Water	200.8	558004
440-246017-3	19-08367	Total Recoverable	Water	200.8	558004
440-246017-4	19-08368	Total Recoverable	Water	200.8	558004
MB 440-558004/1-A	Method Blank	Total Recoverable	Water	200.8	558004
LCS 440-558004/2-A	Lab Control Sample	Total Recoverable	Water	200.8	558004
440-246017-1 MS	19-08365	Total Recoverable	Water	200.8	558004
440-246017-1 MSD	19-08365	Total Recoverable	Water	200.8	558004

Prep Batch: 558178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-246017-5	19-08369	Total Recoverable	Water	200.2	
440-246017-6	19-08370	Total Recoverable	Water	200.2	
MB 440-558178/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-558178/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
LCSD 440-558178/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.2	
550-125720-G-1-B MS	Matrix Spike	Total Recoverable	Water	200.2	
550-125720-G-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	

Analysis Batch: 558308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-246017-5	19-08369	Total Recoverable	Water	200.8	558178
440-246017-6	19-08370	Total Recoverable	Water	200.8	558178
MB 440-558178/1-A	Method Blank	Total Recoverable	Water	200.8	558178
LCS 440-558178/2-A	Lab Control Sample	Total Recoverable	Water	200.8	558178
LCSD 440-558178/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	558178
550-125720-G-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	558178
550-125720-G-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	558178

Accreditation/Certification Summary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-246017-1
SDG: 360-001, 360-011, Shaft

Laboratory: Eurofins TestAmerica, Irvine

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Hawaii	State Program	9	N/A	01-29-20

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	
Oregon	NELAP	10	4028	01-29-20

Login Sample Receipt Checklist

Client: NAVFAC Hawaii

Job Number: 440-246017-1
SDG Number: 360-001, 360-011, Shaft

Login Number: 246017
List Number: 1
Creator: Skinner, Alma D

List Source: Eurofins TestAmerica, Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

MEMORANDUM

06 Aug 19

Packet No: 19-087990806

From: NAVFAC HAWAII, Environmental Services Laboratory, PRP411

To: Kyle Teraoka NAVFACHI OPBP6

Copy To: BRIAN YAMADA NAVFAC EV1

Subj: ☐ LABORATORY REPORTS
☐ MISCELLANEOUS CHARGES AND/OR CHAIN(S) OF CUSTODY SHEETS

Encl: Lab Number(s) 19-08799 , 19-08800 , 19-08801 , 19-08802

1. Thank you for using our laboratory to provide you with quality test results and/or services.

2. Please take a few minutes and check over the enclosures. If you believe anything is missing or in need of correction, let us know immediately and we will send you a correction as soon as possible.

3. Our goal is to better serve all our customers and we are concerned that you are receiving our services in the most efficient and timely manner possible. Please acknowledge receipt by signing below and returning this memo so we will know that you have received the enclosures. Also feel free to include any comments you have concerning our services. You may return this memo to us through the guardmail (NAVFAC HI PRP411) or fax it to 471-4534.

4. After the laboratory reports are archived, additional copies are available with an archival fee of $72.00/hr. If you have any questions, please contact us at 474-3704 or at the above fax number.

~~5. Laboratory certifies that the results meet all A2LA requirements unless noted in the "remarks" section of the report.~~ 8/6/19

Duane Morita, Acting Laboratory Manager

TOTAL NO. OF PAGES: 18

To: NAVFAC HI PRP4

☐ Receipt acknowledged. Enclosures appear complete and acceptable.

☐ Comments/discrepancies noted.

_____

_____

☐ Please fax corrections/amendments to Fax#: _____

or guardmail to: _____

Customer's Signature/Date: _____

ENCLOSURE(6)

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 03/14/2019

eurofins | Eaton Analytical

110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: NAVFAC Hawaii

Attn: Duane Morita
Environmental Lab, Code PRJ411
Building 1423, Central Avenue
JBPHH, HI 96860

Report: 459358
Priority: Weekend or Holiday
Status: Final
PWS ID: HI0000360

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4362350	19-08799,JBPHH RedHill 360-001	200.8	07/22/19 08:55	Client	07/24/19 08:30
4362351	19-08800,JBPHHRedHill360-001D	200.8	07/22/19 08:55	Client	07/24/19 08:30
4362352	19-08801,JBPHH RedHill 360-011	200.8	07/22/19 09:20	Client	07/24/19 08:30
4362353	19-08802,JBPHH RedHill360-011D	200.8	07/22/19 09:20	Client	07/24/19 08:30

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Kelly Blackburn at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Kelly Blackburn ASM

Authorized Signature | Title | 07/26/2019 Date

Client Name: NAVFAC Hawaii
Report #: 459358

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Naval Facilities Engineering Command, Hawaii, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON: 51510010 2019	ESM:	POC: Kyle Teraoka	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Teraoka		Copy To: Brian Yamada	Copy To:	
NAVFAC HI OPBPo		NAVFAC HI EVH		
kyle.teraoka@navy.mil		brian.m.yamada@navy.mil		

Sample ID	Sample Description	Matrix Code	Sampling Date	Sampling Time	Container Vol	Container Type	Analysis Required	Preservative / Res. Cl (ppm)	FOR LAB USE ONLY pH	Lab Number	Ext.	Lctn.	Cond. A	Cond. U
Joint Base Pearl Harbor-Hickam (360-001)	Red Hill Shaft Pumphead, WL001	Water	7/22/19	0855	125ml	Plastic	Lead (200.8)	HNO3, pH <2		19-08799	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-001)	Red Hill, WL001, Sampling Duplicate	Water	7/22/19	0855	125ml	Plastic	Lead (200.8)	HNO3, pH <2		19-08800	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Tap outside the C12 Bldg	Water	7/22/19	0920	125ml	Plastic	Lead (200.8)	HNO3, pH <2 / 0.5		19-08801	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Sampling Duplicate	Water	7/22/19	0920	125ml	Plastic	Lead (200.8)	HNO3, pH <2		19-08802	1	C	✓	

Sampling Information	Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill	Transported/Stored in: Hand Carry	Cooler Temp: Ambient °C	[ ] Return to customer [X] Dispose at 60 Days [ ] Archive for ____ Days [ ] Contact before disposal	[X] Received with CoC [ ] Received with Custody Seals [ ] Seals Required [ ] Seals Intact [X] Labels and CoC agree
Sampler(s): (Print names clearly) K. Miyaki	Air bill/Carrier ID#:			

Remarks: Any EPA approved drinking water method for organic chemicals, 40 CFR 141.24, may be used.
Laboratory must certified by the Hawaii State DOH Drinking Water Program.

Relinquished By: (Print clearly & Sign)	Date	Time	Received By: (Print clearly & Sign)	Date	Time
K. Miyaki K. Miyaki	7/22/19	1315		7/22/19	1315

NAVFAC HI COC, REV. 1; Eff. Date 11 Feb 2010

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	IS-Bismuth	200.8	N/A	---		1.0294	1.0	N/A	103	60 - 125	---	---	1.0	---	07/25/2019 12:12	4364006
QCS	IS-Indium	200.8	N/A	---		1.0087	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:12	4364006
QCS	Lead	200.8	1.0	---		51.1076	50.0	ug/L	102	90 - 110	---	---	1.0	---	07/25/2019 12:12	4364006
QCS	IS-Scandium	200.8	N/A	---		1.0098	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:12	4364006
QCS	IS-Terbium	200.8	N/A	---		1.0238	1.0	N/A	102	60 - 125	---	---	1.0	---	07/25/2019 12:12	4364006
QCS	IS-Yttrium	200.8	N/A	---		1.0073	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:12	4364006
ICV	IS-Bismuth	200.8	N/A	---		1.0208	1.0	N/A	102	60 - 125	---	---	1.0	---	07/25/2019 12:14	4364007
ICV	IS-Indium	200.8	N/A	---		1.0060	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:14	4364007
ICV	Lead	200.8	1.0	---		51.2941	50.0	ug/L	103	90 - 110	---	---	1.0	---	07/25/2019 12:14	4364007
ICV	IS-Scandium	200.8	N/A	---		1.0026	1.0	N/A	100	60 - 125	---	---	1.0	---	07/25/2019 12:14	4364007
ICV	IS-Terbium	200.8	N/A	---		1.0215	1.0	N/A	102	60 - 125	---	---	1.0	---	07/25/2019 12:14	4364007
ICV	IS-Yttrium	200.8	N/A	---		1.0060	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:14	4364007
ICB	IS-Bismuth	200.8	N/A	---		1.0300	1.0	N/A	103	60 - 125	---	---	1.0	---	07/25/2019 12:16	4364008
ICB	IS-Indium	200.8	N/A	---		1.0197	1.0	N/A	102	60 - 125	---	---	1.0	---	07/25/2019 12:16	4364008
ICB	Lead	200.8	1.0	---	<	1.0		ug/L	---	---	---	---	1.0	---	07/25/2019 12:16	4364008
ICB	IS-Scandium	200.8	N/A	---		1.0085	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:16	4364008
ICB	IS-Terbium	200.8	N/A	---		1.0289	1.0	N/A	103	60 - 125	---	---	1.0	---	07/25/2019 12:16	4364008
ICB	IS-Yttrium	200.8	N/A	---		1.0056	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:16	4364008
LRB	IS-Bismuth	200.8	N/A	---		1.0256	1.0	N/A	103	60 - 125	---	---	1.0	---	07/25/2019 12:21	4364010
LRB	IS-Indium	200.8	N/A	---		1.0099	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:21	4364010
LRB	Lead	200.8	1.0	---	<	1.0		ug/L	---	---	---	---	1.0	---	07/25/2019 12:21	4364010
LRB	IS-Scandium	200.8	N/A	---		0.9988	1.0	N/A	100	60 - 125	---	---	1.0	---	07/25/2019 12:21	4364010
LRB	IS-Terbium	200.8	N/A	---		1.0179	1.0	N/A	102	60 - 125	---	---	1.0	---	07/25/2019 12:21	4364010
LRB	IS-Yttrium	200.8	N/A	---		0.9977	1.0	N/A	100	60 - 125	---	---	1.0	---	07/25/2019 12:21	4364010
LFB	IS-Bismuth	200.8	N/A	---		1.0448	1.0	N/A	104	60 - 125	---	---	1.0	---	07/25/2019 12:25	4364012
LFB	IS-Indium	200.8	N/A	---		1.0138	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:25	4364012
LFB	Lead	200.8	1.0	---		50.4925	50.0	ug/L	101	85 - 115	---	---	1.0	---	07/25/2019 12:25	4364012
LFB	IS-Scandium	200.8	N/A	---		1.0062	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:25	4364012
LFB	IS-Terbium	200.8	N/A	---		1.0386	1.0	N/A	104	60 - 125	---	---	1.0	---	07/25/2019 12:25	4364012
LFB	IS-Yttrium	200.8	N/A	---		1.0073	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:25	4364012
FS	IS-Bismuth	200.8	N/A	19-06800,JBPHH Red-Hill 360-001D		1.0728	1.0	N/A	107	60 - 125	---	---	1.0	---	07/25/2019 12:52	4362351
FS	IS-Indium	200.8	N/A	19-06800,JBPHH Red-Hill 360-001D		1.0058	1.0	N/A	101	60 - 125	---	---	1.0	---	07/25/2019 12:52	4362351
FS	Lead	200.8	1.0	19-06800,JBPHH Red-Hill 360-001D	<	1.0		ug/L	---	---	---	---	1.0	---	07/25/2019 12:52	4362351
FS	IS-Scandium	200.8	N/A	19-06800,JBPHH Red-Hill 360-001D		0.9872	1.0	N/A	97	60 - 125	---	---	1.0	---	07/25/2019 12:52	4362351
FS	IS-Terbium	200.8	N/A	19-06800,JBPHH Red-Hill 360-001D		1.0803	1.0	N/A	108	60 - 125	---	---	1.0	---	07/25/2019 12:52	4362351
FS	IS-Yttrium	200.8	N/A	19-06800,JBPHH Red-Hill 360-001D		0.9843	1.0	N/A	98	60 - 125	---	---	1.0	---	07/25/2019 12:52	4362351
FS	IS-Bismuth	200.8	N/A	19-06801,JBPHH Red-Hill 360-011		1.0670	1.0	N/A	107	60 - 125	---	---	1.0	---	07/25/2019 12:55	4362352
FS	IS-Indium	200.8	N/A	19-06801,JBPHH Red-Hill 360-011		0.9957	1.0	N/A	100	60 - 125	---	---	1.0	---	07/25/2019 12:55	4362352
FS	Lead	200.8	1.0	19-06801,JBPHH Red-Hill 360-011		1.3		ug/L	---	---	---	---	1.0	---	07/25/2019 12:55	4362352
FS	IS-Scandium	200.8	N/A	19-06801,JBPHH Red-Hill 360-011		0.9580	1.0	N/A	96	60 - 125	---	---	1.0	---	07/25/2019 12:55	4362352

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Eurofins Eaton Analytical
Run Log

Run ID: **262406** Method: **200.8**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	4365085		RW	FQ	07/26/2019 10:21	
ICV	4365086		RW	FQ	07/26/2019 10:23	
ICB	4365087		RW	FQ	07/26/2019 10:25	
LDB	4364398		RW	FQ	07/26/2019 10:28	
DFB	4364403		RW	FQ	07/26/2019 10:39	
CCV	4365090		RW	FQ	07/26/2019 11:08	
CCB	4365091		RW	FQ	07/26/2019 11:11	
FS	4362350	19-08799,JBPHH RedHill 360-001	DW	FQ	07/26/2019 11:31	
CCV	4365095		RW	FQ	07/26/2019 11:40	
CCB	4365096		RW	FQ	07/26/2019 11:42	

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCB	IS-Terbium	200.8	N/A	---		1.0964	1.0	N/A	110	60 - 125	---	---	1.0	---	07/26/2019 11:11	4365091
CCB	IS-Yttrium	200.8	N/A	---		0.9850	1.0	N/A	99	60 - 125	---	---	1.0	---	07/26/2019 11:11	4365091
FS	IS-Bismuth	200.8	N/A	19-06799JBPHH Redhill 360-001		1.1290	1.0	N/A	113	60 - 125	---	---	1.0	07/25/2019 11:25	07/26/2019 11:31	4362350
FS	IS-Indium	200.8	N/A	19-06799JBPHH Redhill 360-001		1.0055	1.0	N/A	101	60 - 125	---	---	1.0	07/25/2019 11:25	07/26/2019 11:31	4362350
FS	Lead	200.8	1.0	19-06799JBPHH Redhill 360-001	<	1.0		ug/L	---	---	---	---	1.0	07/25/2019 11:25	07/26/2019 11:31	4362350
FS	IS-Scandium	200.8	N/A	19-06799JBPHH Redhill 360-001		0.9396	1.0	N/A	94	60 - 125	---	---	1.0	07/25/2019 11:25	07/26/2019 11:31	4362350
FS	IS-Terbium	200.8	N/A	19-06799JBPHH Redhill 360-001		1.1139	1.0	N/A	111	60 - 125	---	---	1.0	07/25/2019 11:25	07/26/2019 11:31	4362350
FS	IS-Yttrium	200.8	N/A	19-06799JBPHH Redhill 360-001		0.9848	1.0	N/A	98	60 - 125	---	---	1.0	07/25/2019 11:25	07/26/2019 11:31	4362350
CCV	IS-Bismuth	200.8	N/A	---		1.1543	1.0	N/A	115	60 - 125	---	---	1.0	---	07/26/2019 11:40	4365095
CCV	IS-Indium	200.8	N/A	---		1.0497	1.0	N/A	105	60 - 125	---	---	1.0	---	07/26/2019 11:40	4365095
CCV	Lead	200.8	1.0	---		53.4437	50.0	ug/L	107	85 - 115	---	---	1.0	---	07/26/2019 11:40	4365095
CCV	IS-Scandium	200.8	N/A	---		0.9754	1.0	N/A	98	60 - 125	---	---	1.0	---	07/26/2019 11:40	4365095
CCV	IS-Terbium	200.8	N/A	---		1.1128	1.0	N/A	111	60 - 125	---	---	1.0	---	07/26/2019 11:40	4365095
CCV	IS-Yttrium	200.8	N/A	---		1.0057	1.0	N/A	101	60 - 125	---	---	1.0	---	07/26/2019 11:40	4365095
CCB	IS-Bismuth	200.8	N/A	---		1.1383	1.0	N/A	114	60 - 125	---	---	1.0	---	07/26/2019 11:42	4365096
CCB	IS-Indium	200.8	N/A	---		1.0395	1.0	N/A	104	60 - 125	---	---	1.0	---	07/26/2019 11:42	4365096
CCB	Lead	200.8	1.0	---	<	1.0		ug/L	---	---	---	---	1.0	---	07/26/2019 11:42	4365096
CCB	IS-Scandium	200.8	N/A	---		0.9752	1.0	N/A	98	60 - 125	---	---	1.0	---	07/26/2019 11:42	4365096
CCB	IS-Terbium	200.8	N/A	---		1.1017	1.0	N/A	110	60 - 125	---	---	1.0	---	07/26/2019 11:42	4365096
CCB	IS-Yttrium	200.8	N/A	---		1.0071	1.0	N/A	101	60 - 125	---	---	1.0	---	07/26/2019 11:42	4365096

END OF REPORT

MEMORANDUM 24 Jul 19

Packet No: 19-087950724

From: NAVFAC HAWAII, Environmental Services Laboratory, PRP411

To: Kyle Teraoka NAVFACHI OPBP6

Copy To: BRIAN YAMADA NAVFAC EV1

Subj: ☐ LABORATORY REPORTS
☐ MISCELLANEOUS CHARGES AND/OR CHAIN(S) OF CUSTODY SHEETS

Encl: Lab Number(s) 19-08795, 19-08796, 19-08797, 19-08798

1. Thank you for using our laboratory to provide you with quality test results and/or services.

2. Please take a few minutes and check over the enclosures. If you believe anything is missing or in need of correction, let us know immediately and we will send you a correction as soon as possible.

3. Our goal is to better serve all our customers and we are concerned that you are receiving our services in the most efficient and timely manner possible. Please acknowledge receipt by signing below and returning this memo so we will know that you have received the enclosures. Also feel free to include any comments you have concerning our services. You may return this memo to us through the guardmail (NAVFAC HI PRP411) or fax it to 471-4534.

4. After the laboratory reports are archived, additional copies are available with an archival fee of $72.00/hr. If you have any questions, please contact us at 474-3704 or at the above fax number.

~~5. Laboratory certifies that the results meet all A2LA requirements unless noted in the "remarks" section of the report.~~ a 7/24/19

Duane Morita, Acting Laboratory Manager

TOTAL NO. OF PAGES: 15

To: NAVFAC HI PRP4

☐ Receipt acknowledged. Enclosures appear complete and acceptable.

☐ Comments/discrepancies noted.

_____

_____

☐ Please fax corrections/amendments to Fax#: _____

or guardmail to: _____

Customer's Signature/Date: _____

Table of Contents

Job ID: 440-246385-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-246385-1

Comments
No additional comments.

Receipt
The samples were received on 7/23/2019 10:15 AM; the samples arrived in good condition and properly preserved. The temperature of the cooler at receipt was 23.5° C.

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

Method Summary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-246385-1
SDG: 360-001, 360-011

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL IRV
200.2	Preparation, Total Recoverable Metals	EPA	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-559078/1-A
Matrix: Water
Analysis Batch: 559173

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 559078

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.50	ug/L		07/23/19 12:04	07/23/19 17:40	1

Lab Sample ID: LCS 440-559078/2-A
Matrix: Water
Analysis Batch: 559173

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 559078

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	80.0	75.3		ug/L		94	85 - 115

Lab Sample ID: 440-246385-1 MS
Matrix: Water
Analysis Batch: 559173

Client Sample ID: 19-08795
Prep Type: Total Recoverable
Prep Batch: 559078

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.58	J	80.0	73.8		ug/L		92	70 - 130

Lab Sample ID: 440-246385-1 MSD
Matrix: Water
Analysis Batch: 559173

Client Sample ID: 19-08795
Prep Type: Total Recoverable
Prep Batch: 559078

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.58	J	80.0	75.9		ug/L		94	70 - 130	3	20

Definitions/Glossary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-246385-1
SDG: 360-001, 360-011

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Chain of Custody Record

Eurofins TestAmerica, Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614-5843
phone 949.261 1022 fax 949.260.3299

eurofins

Regulatory Program: ☑DW ☐NPDES ☐RCRA ☐Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Duane Morita	Site Contact:	Date:	COC No: 1 of 1 COCs
NAVFAC HAWAII	Email: duane.morita@navy.mil	Lab Contact: Sheri Fama	Carrier:	TALS Project #:
400 MARSHALL RD	Tel/Fax: 808-474-3704 / 808-471-4534			Sampler: K. Miyaki
JBPHH, HI 96860	Analysis Turnaround Time			For Lab Use Only: Walk-in Client:
(808) 474-3704 Phone	☑CALENDAR DAYS ☐WORKING DAYS			Lab Sampling:
(808) 471-4534 FAX	TAT if different from Below ____			
Project Name: Red Hill	☐ 2 weeks			Job / SDG No.:
Site: 360-001, 360-011	☐ 1 week			
Email invoice to stuart kaneshiro@navy.mil for CC payment	☐ 2 days ☑ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Lead (EPA 200.8)	Sample Specific Notes:
19-08795	7/22/2019	0855 HST	G	Water	1			X	
19-08796	7/22/2019	0855 HST	G	Water	1			X	
19-08797	7/22/2019	0920 HST	G	Water	1			X	
19-08798	7/22/2019	0920 HST	G	Water	1			X	
								4	

440-246385 Chain of Custody

7/23/19 LD

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☑Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

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 & Comments: Laboratory must be certified by the Hawaii State DOH Drinking Water Program.
Please provide verbal results to Mr. Aaron Poentis at 808-778-8424.

NO ice

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd. 23.1 Corr'd: 23.5		Therm ID No.: IR-79
Relinquished by: Duane Morita	Company: NAVFAC HAWAII	Date/Time: 7/22/19 1920	Received by: TRK# 7758 0536 3416	Company: FEDEX	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA IRV	Date/Time: 7/23/19 1015

7758 0536 3416

Form No. CA-C-WI-002, Rev. 4.25, dated 7/8/2019

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Naval Facilities Engineering Command, Hawaii, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON: 515100102019	ESM:	POC: Kyle Teraoka	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Teraoka		Copy To: Brian Yamada	Copy To:	
NAVFAC HI OPBP6		NAVFAC HI EV11		
kyle.teraoka@navy.mil		brian.m.yamada@navy.mil		

Sample ID	Sample Description	Matrix Code	Sampling Date	Sampling Time	Container Vol	Container Type	Analysis Required	Preservative / Res. Cl (ppm)	FOR LAB USE ONLY pH	Lab Number	Ext.	Lctn.	Cond. A	Cond. U
Joint Base Pearl Harbor-Hickam (360-001)	Red Hill Shaft Pumphead, WL001	Water	7/22/19	0855	125mL	Plastic	Lead (200.8)	HNO_3, pH<2		19-08795	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-001)	Red Hill, WL001, Sampling Duplicate	Water	7/22/19	0855	125mL	Plastic	Lead (200.8)	HNO_3, pH<2		19-08796	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Tap outside the Cl2 Bldg	Water	7/22/19	0920	125mL	Plastic	Lead (200.8)	HNO_3, pH<2 / 0.5		19-08797	1	C	✓	
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Sampling Duplicate	Water	7/22/19	0920	125mL	Plastic	Lead (200.8)	HNO_3, pH<2		19-08798	1	C	✓	

Sampling Information		Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill		Transported/Stored in: Hand Carry	Cooler Temp: Ambient °C	[ ] Return to customer	[X] Received with CoC
				[X] Dispose at 60 Days	[ ] Received with Custody Seals
Sampler(s): (Print names clearly) K. Miyaki		Air bill/Carrier ID#:		[ ] Archive for ____ Days	[ ] Seals Required [ ] Seals Intact
				[ ] Contact before disposal	[X] Labels and CoC agree

Remarks: Any EPA approved drinking water method for organic chemicals, 40 CFR 141.24, may be used.

Laboratory must certified by the Hawaii State DOH Drinking Water Program.

Relinquished By: (Print clearly & Sign)	Date	Time	Received By: (Print clearly & Sign)	Date	Time
K. Miyaki K. Miyaki	7/22/19	1315	L. Labuff J. Jones	7/22/19	1315

MEMORANDUM

05 Aug 19

Packet No: 19-090690805

From: NAVFAC HAWAII, Environmental Services Laboratory, PRP411

To: Kyle Teraoka NAVFACHI OPBP6

Copy To: BRIAN YAMADA NAVFAC EV1

Subj: ☐ LABORATORY REPORTS
☐ MISCELLANEOUS CHARGES AND/OR CHAIN(S) OF CUSTODY SHEETS

Encl: Lab Number(s) 19-09069 , 19-09070 , 19-09071 , 19-09072

1. Thank you for using our laboratory to provide you with quality test results and/or services.

2. Please take a few minutes and check over the enclosures. If you believe anything is missing or in need of correction, let us know immediately and we will send you a correction as soon as possible.

3. Our goal is to better serve all our customers and we are concerned that you are receiving our services in the most efficient and timely manner possible. Please acknowledge receipt by signing below and returning this memo so we will know that you have received the enclosures. Also feel free to include any comments you have concerning our services. You may return this memo to us through the guardmail (NAVFAC HI PRP411) or fax it to 471-4534.

4. After the laboratory reports are archived, additional copies are available with an archival fee of $72.00/hr. If you have any questions, please contact us at 474-3704 or at the above fax number.

~~5. Laboratory certifies that the results meet all A2LA requirements unless noted in the "remarks" section of the report.~~ dw 8/5/19

Duane Morita, Acting Laboratory Manager

TOTAL NO. OF PAGES: 13

To: NAVFAC HI PRP4

☐ Receipt acknowledged. Enclosures appear complete and acceptable.

☐ Comments/discrepancies noted.

_____

_____

☐ Please fax corrections/amendments to Fax#: _____

or guardmail to: _____

Customer's Signature/Date: _____

ENCLOSURE(7)

STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 03/14/2019

Client Name: NAVFAC Hawaii

Report #: 460123

Sampling Point: 19-09069 JBPHH Red Hill360-001

PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	08/01/19 11:33	4369830

Sampling Point: 19-09070 JBPHH Red Hill360-001-DUP

PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	08/01/19 11:34	4369831

Sampling Point: 19-09071 JBPHH Red Hill360-011

PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	< 1.0	ug/L	---	08/01/19 11:36	4369832

Sampling Point: 19-09072 JBPHH Red Hill360-011-DUP

PWS ID: HI0000360

Metals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 !	1.0	5.7	ug/L	---	08/01/19 11:38	4369833

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

eurofins | Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 377784
Batch # 460123

www.eatonanalytical.com

Shaded area for EEA use only

CHAIN OF CUSTODY RECORD

Page 1 of 1

REPORT TO:	SAMPLER (Signature)	PWS ID #	STATE (sample origin)	PROJECT NAME	PO#
NAVFAC Hawaii		HI0000360	HI		

BILL TO:	COMPLIANCE MONITORING	Yes	No	POPULATION SERVED	SOURCE WATER
NAVFAC Hawaii		X			GW

	LAB Number	COLLECTION DATE	COLLECTION TIME	AM	PM	SAMPLING SITE	TEST NAME	SAMPLE REMARKS	CHLORINATED YES	CHLORINATED NO	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
1	43698 30	07/29/19	0855	X		19-09069, JBPHH Red Hill, 360-001	Lead (200.8) pH<2			X	1	DW	LV
2													
3	831	07/29/19	0855	X		19-09070, JBPHH Red Hill, 360-001, Duplicate	Lead (200.8) pH<2	0731 2019 KP		X	1	DW	LV
4													
5	832	07/29/19	0925	X		19-09071, JBPHH Red Hill, 360-011	Lead (200.8) pH<2		X		1	DW	LV
6													
7	833	07/29/19	0925	X		19-09072, JBPHH Red Hill, 360-011, Duplicate	Lead (200.8) pH<2		X		1	DW	LV
8													
9													
10						Please call Aaron Poentis at (808) 778-8424 with							
11						the results.							
12							Client Provided Sample Container						
13													
14													

RELINQUISHED BY:(Signature)	DATE	TIME AM/PM	RECEIVED BY:(Signature)	DATE	TIME AM/PM
Duane Morita	7/29/19	1500 PM	Fedex	7/29/19	AM PM
RELINQUISHED BY:(Signature)	DATE	TIME AM/PM	RECEIVED BY:(Signature)	DATE	TIME AM/PM
RELINQUISHED BY:(Signature)	DATE	TIME AM/PM	RECEIVED FOR LABORATORY BY	DATE	TIME AM/PM
			K Rue	7/31/19	0930 AM/PM

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS: RUSH

CONDITIONS UPON RECEIPT (check one):
____ Iced: Wet/Blue X Ambient ____ °C Upon Receipt ____ N/A

MATRIX CODES:
DW-DRINKING WATER
RW-REAGENT WATER
GW-GROUND WATER
EW-EXPOSURE WATER
SW-SURFACE WATER
PW-POOL WATER
WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written (15 working days)	0%	IV* = Immediate Verbal (3 working days)	100%
RV* = Rush Verbal (5 working days)	50%	IW* = Immediate Written (3 working days)	125%
RW* = Rush Written (5 working days)	75%	SP* = Weekend, Holiday	CALL
		STAT* = Less than 48 hours	CALL

* Please call, expedited service not available for all testing

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.

eurofins | Eaton Analytical

Eurofins Eaton Analytical
Run Log

Run ID: **262629** Method: **200.8**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	4370143		RW	FQ	08/01/2019 11:20	
ICV	4370144		RW	FQ	08/01/2019 11:21	
ICB	4370145		RW	FQ	08/01/2019 11:23	
LRB	4370157		RW	FQ	08/01/2019 11:27	
LFB	4370158		RW	FQ	08/01/2019 11:31	
FS	4369830	19-09069 JBPHH Red Hill360-001	DW	FQ	08/01/2019 11:33	
FS	4369831	19-09070 JBPHH Red Hill360-001	DW	FQ	08/01/2019 11:34	
FS	4369832	19-09071 JBPHH Red Hill360-011	DW	FQ	08/01/2019 11:36	
FS	4369833	19-09072 JBPHH Red Hill360-011	DW	FQ	08/01/2019 11:38	
CCV	4370155		RW	FQ	08/01/2019 11:55	
CCB	4370156		RW	FQ	08/01/2019 11:57	

Sample Type Key

Type (Abbr.)	Sample Type
CCV	Continuing Cali. Verification
CCB	Continuing Calibration Blank
FS	Field Sample
ICV	Initial Cali. Verification
ICB	Initial Calibration Blank
LFB	Laboratory Fortified Blank
LRB	Laboratory Reagent Blank
QCS	Quality Control Sample

Type (Abbr.)	Sample Type

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Naval Facilities Engineering Command, Hawaii, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON: 515100102019	ESM:	POC: Kyle Teraoka	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Teraoka		Copy To: Brian Yamada	Copy To:	
NAVFAC HI OPBP6		NAVFAC HI EV11		
kyle.teraoka@navy.mil		brian.m.yamada@navy.mil		

Sample ID	Sample Description	Matrix Code	Sampling Date	Sampling Time	Container Vol	Container Type	Analysis Required	Preservative / Res. Cl (ppm)	FOR LAB USE ONLY pH	Lab Number	Ext.	Lctn.	Cond A
Joint Base Pearl Harbor-Hickam (360-001)	Red Hill Shaft Pumphead, WL001	Water	7/29/19	0855	125mL	Plastic	Lead (200.8)	0.0		19-09069	1	C	✓
Joint Base Pearl Harbor-Hickam (360-001)	Red Hill, WL001, Sampling Duplicate	Water	7/29/19	0855	125mL	Plastic	Lead (200.8)			19-09070	1	C	✓
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Tap outside the Cl2 Bldg	Water	7/29/19	0925	125mL	Plastic	Lead (200.8)	0.1		19-09071	1	C	✓
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Sampling Duplicate	Water	7/29/19	0925	125mL	Plastic	Lead (200.8)			19-09072	1	C	✓

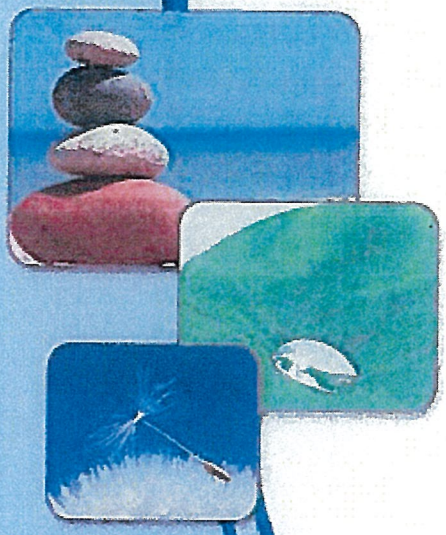
Sampling Information	Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill	Transported/Stored in: Hand Carry	Cooler Temp: Ambient °C	[ ] Return to customer	[X] Received with CoC
Sampler(s): (Print names clearly) K. Miyaki	Air bill/Carrier ID#:		[X] Dispose at 60 Days	[ ] Received with Custody Seals
			[ ] Archive for ____ Days	[X] Seals Required [ ] Seals Intact
			[ ] Contact before disposal	[ ] Labels and CoC agree

Remarks: Any EPA approved drinking water method for organic chemicals, 40 CFR 141.24, may be used.

Laboratory must certified by the Hawaii State DOH Drinking Water Program.

Relinquished By: (Print clearly & Sign)	Date	Time	Received By: (Print clearly & Sign)	Date	Time
K. Miyaki K Miyaki	7/29/19	1315	Stuart Kaneshiro	7/29/19	1315

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-246822-1
Laboratory Sample Delivery Group: 360-001, 360-011
Client Project/Site: Red Hill

For:
NAVFAC Hawaii
Bldg 1423, Central Avenue
Pearl Harbor, Hawaii 96860

Attn: Duane Morita

Authorized for release by:
7/31/2019 1:32:21 PM

Sheri Fama, Project Manager I
(949)260-3274
sheri.fama@testamericainc.com

Sample Summary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-246822-1
SDG: 360-001, 360-011

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-246822-1	19-09073	Water	07/29/19 08:55	07/30/19 10:00	
440-246822-2	19-09074	Water	07/29/19 08:55	07/30/19 10:00	
440-246822-3	19-09075	Water	07/29/19 09:25	07/30/19 10:00	
440-246822-4	19-09076	Water	07/29/19 09:25	07/30/19 10:00	

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-246822-1
SDG: 360-001, 360-011

Client Sample ID: 19-09073
Date Collected: 07/29/19 08:55
Date Received: 07/30/19 10:00

Lab Sample ID: 440-246822-1
Matrix: Water

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.50	ug/L		07/30/19 14:40	07/30/19 20:38	1

Client Sample ID: 19-09074
Date Collected: 07/29/19 08:55
Date Received: 07/30/19 10:00

Lab Sample ID: 440-246822-2
Matrix: Water

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.79	J	1.0	0.50	ug/L		07/30/19 14:40	07/30/19 20:44	1

Client Sample ID: 19-09075
Date Collected: 07/29/19 09:25
Date Received: 07/30/19 10:00

Lab Sample ID: 440-246822-3
Matrix: Water

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.65	J	1.0	0.50	ug/L		07/30/19 14:40	07/30/19 20:46	1

Client Sample ID: 19-09076
Date Collected: 07/29/19 09:25
Date Received: 07/30/19 10:00

Lab Sample ID: 440-246822-4
Matrix: Water

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.0		1.0	0.50	ug/L		07/30/19 14:40	07/30/19 20:48	1

Lab Chronicle

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-246822-1
SDG: 360-001, 360-011

Client Sample ID: 19-09073
Date Collected: 07/29/19 08:55
Date Received: 07/30/19 10:00

Lab Sample ID: 440-246822-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.2			25 mL	25 mL	560398	07/30/19 14:40	BV	TAL IRV
Total Recoverable	Analysis	200.8		1			560488	07/30/19 20:38	P1R	TAL IRV

Client Sample ID: 19-09074
Date Collected: 07/29/19 08:55
Date Received: 07/30/19 10:00

Lab Sample ID: 440-246822-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.2			25 mL	25 mL	560398	07/30/19 14:40	BV	TAL IRV
Total Recoverable	Analysis	200.8		1			560488	07/30/19 20:44	P1R	TAL IRV

Client Sample ID: 19-09075
Date Collected: 07/29/19 09:25
Date Received: 07/30/19 10:00

Lab Sample ID: 440-246822-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.2			25 mL	25 mL	560398	07/30/19 14:40	BV	TAL IRV
Total Recoverable	Analysis	200.8		1			560488	07/30/19 20:46	P1R	TAL IRV

Client Sample ID: 19-09076
Date Collected: 07/29/19 09:25
Date Received: 07/30/19 10:00

Lab Sample ID: 440-246822-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.2			25 mL	25 mL	560398	07/30/19 14:40	BV	TAL IRV
Total Recoverable	Analysis	200.8		1			560488	07/30/19 20:48	P1R	TAL IRV

Laboratory References:
TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Association Summary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-246822-1
SDG: 360-001, 360-011

Metals

Prep Batch: 560398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-246822-1	19-09073	Total Recoverable	Water	200.2	
440-246822-2	19-09074	Total Recoverable	Water	200.2	
440-246822-3	19-09075	Total Recoverable	Water	200.2	
440-246822-4	19-09076	Total Recoverable	Water	200.2	
MB 440-560398/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-560398/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-246822-1 MS	19-09073	Total Recoverable	Water	200.2	
440-246822-1 MSD	19-09073	Total Recoverable	Water	200.2	

Analysis Batch: 560488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-246822-1	19-09073	Total Recoverable	Water	200.8	560398
440-246822-2	19-09074	Total Recoverable	Water	200.8	560398
440-246822-3	19-09075	Total Recoverable	Water	200.8	560398
440-246822-4	19-09076	Total Recoverable	Water	200.8	560398
MB 440-560398/1-A	Method Blank	Total Recoverable	Water	200.8	560398
LCS 440-560398/2-A	Lab Control Sample	Total Recoverable	Water	200.8	560398
440-246822-1 MS	19-09073	Total Recoverable	Water	200.8	560398
440-246822-1 MSD	19-09073	Total Recoverable	Water	200.8	560398

Accreditation/Certification Summary

Client: NAVFAC Hawaii
Project/Site: Red Hill

Job ID: 440-246822-1
SDG: 360-001, 360-011

Laboratory: Eurofins TestAmerica, Irvine

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Hawaii	State Program	9	N/A	01-29-20

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	
Oregon	NELAP	10	4028	01-29-20

Login Sample Receipt Checklist

Client: NAVFAC Hawaii

Job Number: 440-246822-1
SDG Number: 360-001, 360-011

Login Number: 246822
List Number: 1
Creator: Skinner, Alma D

List Source: Eurofins TestAmerica, Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	