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

5090
Ser N45/0431
February 3, 2017

CERTIFIED NO: 7015 0640 0002 4672 9690

Ms. Joanna Seto, Chief
Hawaii State Department of Health
Environmental Management Division
Safe Drinking Water Branch
919 Ala Moana Boulevard, Room 308
Honolulu, HI 96814

Dear Ms. Seto:

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

Results for drinking water samples taken at the Red Hill Shaft as required by the Transition Plan for Tank 5 Red Hill Release are enclosed. A summary of the laboratory results that are enclosed is provided in the table below.

Lab Report Number	Sample Location(s)	Sample Date	Laboratory Methods
373265	360-011, TAP OUTSIDE CL2 BLDG	12/13/16	200.8, 524.2, 525.2
373266	360-011, TAP OUTSIDE CL2 BLDG	12/13/16	8015

Results for voluntary drinking water samples taken at Red Hill Shaft on 11/15/16 are also enclosed. No contaminants were detected in these samples. Should you have any questions regarding this matter, please contact Mr. Ravi Mohandie at 471-1171, extension 260.

Sincerely,

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

Enclosure: 1. NAVFAC Hawaii Laboratory Lab Numbers 17-01646 (28 pages) and 17-01012 (31 pages)

5090
Ser N45/0431
February 3, 2017

Copy to: Department of Health, Solid and Hazardous Waste Branch, Underground Storage Tank Section (Hard copy and CD enclosures)
Mr. John Floyd, NAVSUP Fleet Logistics Center Pearl Harbor Deputy Director, Fuel and Facility Management (CD enclosures)
Mr. Rockne Krill, DLA Energy Pacific (CD enclosures)

MEMORANDUM

06 Jan 17

Packet No: 17-016460106

From: NAVFAC HAWAII, Environmental Services Laboratory, PRP411

To: Kyle Teraoka NAVFACHI OPBP6

Copy To: See COC

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

Encl: Lab Number(s) 17-01646

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.~~ cm 1/6/17

TOTAL NO. OF PAGES: 28

Duane Morita, Acting Laboratory Manager

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)

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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.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	E87775
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Mexico	IN00035
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035/E87775	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	200001	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*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA160002	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
Missouri	880		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 04/14/2016

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LABORATORY CASE NARRATIVE

Client: NAVFAC Hawaii Report #: 379209CN

All method QC was within acceptance limits.

Kelly Yost Analytical Services Manager 12/30/2016

Authorized Signature Title Date

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: 379209
Priority: Rush Verbal
Status: Final
PWS ID: HI0000360

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3605531	17-01646 JBPHH RedHill358-011	524.2	12/13/16 09:25	Client	12/15/16 09:45
3605532	17-01646 JBPHH RedHill358-011	525.2	12/13/16 09:25	Client	12/15/16 09:45
3605533	17-01646 JBPHH RedHill358-011	200.8	12/13/16 09:25	Client	12/15/16 09:45

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 Trott at (574) 233-4777.

Kelly Trott Analytical Services Manager

Authorized Signature | Title

12/30/2016
Date

Client Name: NAVFAC Hawaii
Report #: 379209

Client Name: NAVFAC Hawaii Report #: 379209

Sampling Point: 17-01646 JBPHH RedHill356-011 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	---	12/20/16 15:30	3605533

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	12/22/16 07:43	12/27/16 19:02	3605532
208-96-8	Acenaphthylene	525.2	---	0.1	< 0.1	ug/L	12/22/16 07:43	12/27/16 19:02	3605532
120-12-7	Anthracene	525.2	---	0.1	< 0.1	ug/L	12/22/16 07:43	12/27/16 19:02	3605532
50-32-8	Benzo(a)pyrene	525.2	0.2 *	0.02	< 0.02	ug/L	12/22/16 07:43	12/27/16 19:02	3605532
103-23-1	Di(2-ethylhexyl)adipate	525.2	400 *	0.6	< 0.6	ug/L	12/22/16 07:43	12/27/16 19:02	3605532
117-81-7	Di(2-ethylhexyl)phthalate	525.2	6 *	0.6	< 0.6	ug/L	12/22/16 07:43	12/27/16 19:02	3605532
206-44-0	Fluoranthene	525.2	---	0.1	< 0.1	ug/L	12/22/16 07:43	12/27/16 19:02	3605532
85-01-8	Phenanthrene	525.2	---	0.1	< 0.1	ug/L	12/22/16 07:43	12/27/16 19:02	3605532
129-00-0	Pyrene	525.2	---	0.1	< 0.1	ug/L	12/22/16 07:43	12/27/16 19:02	3605532

Volatile Organic Chemicals

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
71-43-2	Benzene	524.2	5 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
56-23-5	Carbon tetrachloride	524.2	5 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
108-90-7	Chlorobenzene	524.2	100 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
95-50-1	1,2-Dichlorobenzene	524.2	600 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
106-46-7	1,4-Dichlorobenzene	524.2	75 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
107-06-2	1,2-Dichloroethane	524.2	5 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
75-35-4	1,1-Dichloroethylene	524.2	7 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
156-59-2	cis-1,2-Dichloroethylene	524.2	70 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
156-60-5	trans-1,2-Dichloroethylene	524.2	100 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
75-09-2	Dichloromethane	524.2	5 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
78-87-5	1,2-Dichloropropane	524.2	5 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
100-41-4	Ethylbenzene	524.2	700 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
91-20-3	Naphthalene	524.2	---	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
100-42-5	Styrene	524.2	100 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
127-18-4	Tetrachloroethylene	524.2	5 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
108-88-3	Toluene	524.2	1000 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
120-82-1	1,2,4-Trichlorobenzene	524.2	70 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
71-55-6	1,1,1-Trichloroethane	524.2	200 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
79-00-5	1,1,2-Trichloroethane	524.2	5 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
79-01-6	Trichloroethylene	524.2	5 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
75-01-4	Vinyl chloride	524.2	2 *	0.2	< 0.2	ug/L	---	12/16/16 12:38	3605531
95-47-6	1,2-Xylene	524.2	---	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
179601-23-1	1,3 + 1,4-Xylene	524.2	---	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531
1330-20-7	Xylenes, Total	524.2	10000 *	0.5	< 0.5	ug/L	---	12/16/16 12:38	3605531

† 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:	*	^	|

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 al6iquot 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.

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Sample Analysis Report

Client: NAVFAC Hawaii
Contact: Duane Morita
Environmental Lab Code PRJ411
Building 1423
Central Ave.
JBPHH, Hawaii 96860
Voice: (808)-474-0768

Order No.: 307763
Receipt Batch No.: 379209

Analytical Method Summary:

Headspace analysis GC/FID – The sample was analyzed as received. 15 mL sample was pipetted into a 20 mL headspace vial containing 4 grams of sodium chloride. 10 µL of 5.5% isopropyl alcohol was added to the sample. Isopropyl alcohol was used as an internal standard. The sample was capped and heated to 75 °C for 30 minutes. The headspace was then sampled and analyzed using a modified EPA Method 8015B, a headspace GC/FID technique. The calibration concentration range was 0.05-4 mg/L. A quadratic calibration was used with a correlation coefficient (r^2) of 0.99. The minimum reporting level (MRL) was 0.1 mg/L.

For quantitation of JP-8 Fuel, the analysis included a set of initial calibration standards, an initial continuing calibration check (CCC) at 0.1 mg/L, a laboratory method blank (LMB), a matrix spike (MS) at 1.0 mg/L, and a closing CCC at 1.0 mg/L at the end of the run.

LAB SAMPLE ID: 3605530 **SAMPLE SITE:** 17-01646 JBPHH RedHill356-011

Analyte	MRL (mg/L)	Sample Result (mg/L)	LMB Result (mg/L)	MS Recovery (%)	Initial CCC Recovery (%)	Closing CCC Recovery (%)
JP-8 Fuel	0.1	< 0.1	< 0.1	93	112	107

Bill Davis 12/21/2016
Analyst signature Date

Reviewer signature 12/21/2016
Reviewer signature Date

eurofins | Eaton Analytical

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

Order # 307763
Batch # 379209

www.eatonanalytical.com

Shaded area for EEA use only

CHAIN OF CUSTODY RECORD

Page 2 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					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	360553O	12/13/16	0925	X		17-01646 BPHH Red Hill 356-011 TP001	TPH as Diesel (JP-8) (8015) RD100		X		3	DW	RV
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

RUSH VERBAL

RELINQUISHED BY:(Signature)	DATE	TIME AM PM	RECEIVED BY:(Signature)	DATE	TIME AM PM
	12/13/16	1420	Fedex		
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
			Rhonda Day	12/15/16	0946

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

LAB COMMENTS

CONDITIONS UPON RECEIPT (check one): ✓ Iced Wet/Blue ___ Ambient 0.2 °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%
RV* = Rush Verbal: (5 working days) 50%
RW* = Rush Written: (5 working days) 75%
IV* = Immediate Verbal: (3 working days) 100%
IW* = Immediate Written: (3 working days) 125%
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

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

Order # 307763

Batch # _____

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	1316531	12/13/16	0925	X		17-01646, JBPHH Red Hill TP001 360-011	Volatiles (524.2) See attached list		X		3	DW	RV
2													
3	532						Semivolatiles (525.2) See attached list		X		2	DW	RV
4													
5	533						Lead (200.8)		X		1	DW	RV
6													
7													
8													
9	534	12/12/16				17-01647, Trip Blank	Volatiles (524.2)		X		2	DW	RV
10													
11													
12													
13													
14													

RELINQUISHED BY:(Signature)	DATE	TIME AM/PM	RECEIVED BY:(Signature)	DATE	TIME AM/PM
[signature]	12/13/16	1462	Fedex		
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
			[signature]	12/15/16	0945

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

LAB COMMENTS: RUSH VERBAL

CONDITIONS UPON RECEIPT (check one): ✓ Iced: Wet/Blue ___ Ambient 0.2 °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%	RW* = 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.

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

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.

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Navy Facilities Engineering Command, Hawaii, PRP411, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON:	ESM:	POC: Kyle Temoku	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Temoku		Copy To: Arleen Mizuno / Ravi Mohandie	Copy To:	
NAVFAC HI OPBP6		NAVFAC HI EV1		
kyle temoku@navy mil		arleen mizuno@navy mil / ravi mohandie@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	12/13/16	0925	3x40ml.	Glass	Volatiles (524.2)	Ascorbic, HCl		17-01146	1-3	C	✓	
					2x1L	Glass	Semi-Volatiles (525.2)	Sulfite, HCl / 0.2			4-5	C	✓	
					3x40ml	Glass	TPH as Diesel (JP-8) (8015)				6-8	C	✓	
					125ml	Plastic	Lead (200.8)	HNO_3 pH<2			9	C	✓	
Trip Blank			10/24/16		2x40mL	Glass	Volatiles	Ascorbic, HCl		17-01147	1-2	C	✓	

Sampling Information	Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill	Transported/Stored in: Cooler with ice	Cooler Temp: 0.8 °C	[ ] Return to customer	[✓] 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	[✓] 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 Kmiyaki	12/13/16	1312	Dayna Morita Dayna Morita	12/13/16	1312
			Rhonda Day Rhonda Day	12/15/16	0945

Page 11 of 26

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

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
Napthalene (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: 224044 Method: 200.8

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
UQCSM	3608153		RW	DS	12/20/2016 14:26	
ICV	3608154		RW	DS	12/20/2016 14:28	
ICB	3608155		RW	DS	12/20/2016 14:31	
LRB	3608157		RW	DS	12/20/2016 14:37	
LFB	3608158		RW	DS	12/20/2016 14:40	
CCV	3608159		RW	DS	12/20/2016 15:16	
CCB	3608160		RW	DS	12/20/2016 15:19	
FS	3605533	17-01646 JBPHH RedHill356-011	DW	DS	12/20/2016 15:30	
MS	3608161	17-01646 JBPHH RedHill356-011	DW	DS	12/20/2016 15:33	
MSD	3608162	17-01646 JBPHH RedHill356-011	DW	DS	12/20/2016 15:36	
CCV	3608163		RW	DS	12/20/2016 15:56	
CCB	3608164		RW	DS	12/20/2016 15:59	

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 #
UQCSM	IS-Bismuth	200.8	N/A	—		1.0196	1.0	N/A	102	60 - 125	—	—	1.0	—	12/20/2016 14:26	3608153
UQCSM	Lead	200.8	1.0	—		49.2380	50.0	ug/L	98	90 - 110	—	—	1.0	—	12/20/2016 14:26	3608153
UQCSM	IS-Yttrium	200.8	N/A	—		1.0220	1.0	N/A	102	60 - 125	—	—	1.0	—	12/20/2016 14:26	3608153
ICV	IS-Bismuth	200.8	N/A	—		1.0017	1.0	N/A	100	60 - 125	—	—	1.0	—	12/20/2016 14:28	3608154
ICV	Lead	200.8	1.0	—		48.6140	50.0	ug/L	97	90 - 110	—	—	1.0	—	12/20/2016 14:28	3608154
ICV	IS-Yttrium	200.8	N/A	—		1.0073	1.0	N/A	101	60 - 125	—	—	1.0	—	12/20/2016 14:28	3608154
ICB	IS-Bismuth	200.8	N/A	—		1.0058	1.0	N/A	101	60 - 125	—	—	1.0	—	12/20/2016 14:31	3608155
ICB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	12/20/2016 14:31	3608155
ICB	IS-Yttrium	200.8	N/A	—		1.0236	1.0	N/A	102	60 - 125	—	—	1.0	—	12/20/2016 14:31	3608155
LRB	IS-Bismuth	200.8	N/A	—		0.9846	1.0	N/A	98	60 - 125	—	—	1.0	—	12/20/2016 14:37	3608157
LRB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	12/20/2016 14:37	3608157
LRB	IS-Yttrium	200.8	N/A	—		1.0047	1.0	N/A	100	60 - 125	—	—	1.0	—	12/20/2016 14:37	3608157
LFB	IS-Bismuth	200.8	N/A	—		1.0141	1.0	N/A	101	60 - 125	—	—	1.0	—	12/20/2016 14:40	3608158
LFB	Lead	200.8	1.0	—		48.4040	50.0	ug/L	97	85 - 115	—	—	1.0	—	12/20/2016 14:40	3608158
LFB	IS-Yttrium	200.8	N/A	—		1.0331	1.0	N/A	103	60 - 125	—	—	1.0	—	12/20/2016 14:40	3608158
CCV	IS-Bismuth	200.8	N/A	—		0.9941	1.0	N/A	99	60 - 125	—	—	1.0	—	12/20/2016 15:16	3608159
CCV	Lead	200.8	1.0	—		49.0380	50.0	ug/L	98	85 - 115	—	—	1.0	—	12/20/2016 15:16	3608159
CCV	IS-Yttrium	200.8	N/A	—		1.0331	1.0	N/A	103	60 - 125	—	—	1.0	—	12/20/2016 15:16	3608159
CCB	IS-Bismuth	200.8	N/A	—		0.9772	1.0	N/A	98	60 - 125	—	—	1.0	—	12/20/2016 15:19	3608160
CCB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	12/20/2016 15:19	3608160
CCB	IS-Yttrium	200.8	N/A	—		1.0154	1.0	N/A	102	60 - 125	—	—	1.0	—	12/20/2016 15:19	3608160
FS	IS-Bismuth	200.8	N/A	[illegible]		0.9683	1.0	N/A	97	60 - 125	—	—	1.0	—	12/20/2016 15:30	3608533
FS	Lead	200.8	1.0	[illegible]	<	1.0		ug/L	—	—	—	—	1.0	—	12/20/2016 15:30	3608533
FS	IS-Yttrium	200.8	N/A	[illegible]		1.0360	1.0	N/A	104	60 - 125	—	—	1.0	—	12/20/2016 15:30	3608533
MS	IS-Bismuth	200.8	N/A	[illegible]		0.9563	1.0	N/A	96	60 - 125	—	—	1.0	—	12/20/2016 15:33	3608161
MS	Lead	200.8	1.0	[illegible]		51.1700	50.0	ug/L	102	70 - 130	—	—	1.0	—	12/20/2016 15:33	3608161
MS	IS-Yttrium	200.8	N/A	[illegible]		1.0248	1.0	N/A	102	60 - 125	—	—	1.0	—	12/20/2016 15:33	3608161
MSD	IS-Bismuth	200.8	N/A	[illegible]		0.9636	1.0	N/A	96	60 - 125	—	—	1.0	—	12/20/2016 15:36	3608162
MSD	Lead	200.8	1.0	[illegible]		50.3080	50.0	ug/L	101	70 - 130	1.7	18	1.0	—	12/20/2016 15:36	3608162
MSD	IS-Yttrium	200.8	N/A	[illegible]		1.0227	1.0	N/A	102	60 - 125	—	—	1.0	—	12/20/2016 15:36	3608162
CCV	IS-Bismuth	200.8	N/A	—		0.9843	1.0	N/A	98	60 - 125	—	—	1.0	—	12/20/2016 15:56	3608163
CCV	Lead	200.8	1.0	—		48.7130	50.0	ug/L	97	85 - 115	—	—	1.0	—	12/20/2016 15:56	3608163
CCV	IS-Yttrium	200.8	N/A	—		1.0203	1.0	N/A	102	60 - 125	—	—	1.0	—	12/20/2016 15:56	3608163
CCB	IS-Bismuth	200.8	N/A	—		0.9818	1.0	N/A	98	60 - 125	—	—	1.0	—	12/20/2016 15:59	3608164
CCB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	12/20/2016 15:59	3608164
CCB	IS-Yttrium	200.8	N/A	—		1.0178	1.0	N/A	102	60 - 125	—	—	1.0	—	12/20/2016 15:59	3608164

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Run Log
Run ID: 223937 Method: 524.2

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
CCC	3605705		RW	PW2	12/16/2016 09:31	524 2-121316-PW2.mth
CCL	3605706		RW	PW2	12/16/2016 10:22	524 2-121316-PW2.mth
LMB	3605707		RW	PW2	12/16/2016 11:21	524 2-121316-PW2.mth
LTB	3605534	LTB-10/26/16, 17-01647	RW	PW2	12/16/2016 12:05	524 2-121316-PW2.mth
FS	3605531	17-01646 JBPHH RedHill356-011	DW	PW2	12/16/2016 12:38	524 2-121316-PW2.mth
CCC	3606214		RW	PW2	12/16/2016 18:20	524 2-121316-PW2.mth

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-1,4-Difluorobenzene	524.2	N/A	—		514290	514290	ug/L	100	50 - 150	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	SS-Bromofluorobenzene	524.2	N/A	—		4.6880	5.0	ug/L	94	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	SS-1,2-Dichlorobenzene-d4	524.2	N/A	—		9.4490	10.0	ug/L	94	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	SS-1,2-Dichloroethane-d4	524.2	N/A	—		8.8310	10.0	ug/L	88	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	SS-Toluene-d8	524.2	N/A	—		9.7340	10.0	ug/L	97	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	Benzene	524.2	0.5	—		4.5730	5.0	ug/L	91	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	Carbon tetrachloride	524.2	0.5	—		4.6550	5.0	ug/L	93	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	Chlorobenzene	524.2	0.5	—		4.5360	5.0	ug/L	91	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	1,2-Dichlorobenzene	524.2	0.5	—		4.6080	5.0	ug/L	92	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	1,4-Dichlorobenzene	524.2	0.5	—		4.4700	5.0	ug/L	89	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	1,2-Dichloroethane	524.2	0.5	—		4.5360	5.0	ug/L	91	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	1,1-Dichloroethylene	524.2	0.5	—		4.4610	5.0	ug/L	90	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	cis-1,2-Dichloroethylene	524.2	0.5	—		4.6550	5.0	ug/L	93	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	trans-1,2-Dichloroethylene	524.2	0.5	—		4.4240	5.0	ug/L	88	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	Dichloromethane	524.2	0.5	—		4.5870	5.0	ug/L	92	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	1,2-Dichloropropane	524.2	0.5	—		4.5010	5.0	ug/L	90	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	Ethylbenzene	524.2	0.5	—		4.4250	5.0	ug/L	88	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	Naphthalene	524.2	0.5	—		4.5890	5.0	ug/L	91	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	Styrene	524.2	0.5	—		4.6070	5.0	ug/L	92	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	Tetrachloroethylene	524.2	0.5	—		4.4990	5.0	ug/L	90	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	Toluene	524.2	0.5	—		4.5820	5.0	ug/L	92	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	1,2,4-Trichlorobenzene	524.2	0.5	—		4.3710	5.0	ug/L	87	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	1,1,1-Trichloroethane	524.2	0.5	—		4.5610	5.0	ug/L	91	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	1,1,2-Trichloroethane	524.2	0.5	—		4.5910	5.0	ug/L	92	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	Trichloroethylene	524.2	0.5	—		4.4740	5.0	ug/L	89	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	Vinyl chloride	524.2	0.2	—		5.0030	5.0	ug/L	100	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	1,2-Xylene	524.2	0.5	—		4.7050	5.0	ug/L	94	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCC	1,3 + 1,4-Xylene	524.2	0.5	—		9.1040	10.0	ug/L	91	70 - 130	—	—	1.0	—	12/16/2016 09:31	3605705
CCL	IS-1,4-Difluorobenzene	524.2	N/A	—		520192	520192	ug/L	100	50 - 150	—	—	1.0	—	12/16/2016 10:22	3605706
CCL	SS-Bromofluorobenzene	524.2	N/A	—		4.7650	5.0	ug/L	95	70 - 130	—	—	1.0	—	12/16/2016 10:22	3605706
CCL	SS-1,2-Dichlorobenzene-d4	524.2	N/A	—		8.9940	10.0	ug/L	90	70 - 130	—	—	1.0	—	12/16/2016 10:22	3605706
CCL	SS-1,2-Dichloroethane-d4	524.2	N/A	—		9.1610	10.0	ug/L	92	70 - 130	—	—	1.0	—	12/16/2016 10:22	3605706
CCL	SS-Toluene-d8	524.2	N/A	—		9.4530	10.0	ug/L	95	70 - 130	—	—	1.0	—	12/16/2016 10:22	3605706
CCL	Benzene	524.2	0.5	—		0.4820	0.5	ug/L	92	68 - 118	—	—	1.0	—	12/16/2016 10:22	3605706
CCL	Carbon tetrachloride	524.2	0.5	—		0.4510	0.5	ug/L	90	61 - 118	—	—	1.0	—	12/16/2016 10:22	3605706
CCL	Chlorobenzene	524.2	0.5	—		0.4820	0.5	ug/L	96	66 - 122	—	—	1.0	—	12/16/2016 10:22	3605706
CCL	1,2-Dichlorobenzene	524.2	0.5	—		0.4390	0.5	ug/L	88	67 - 126	—	—	1.0	—	12/16/2016 10:22	3605706
CCL	1,4-Dichlorobenzene	524.2	0.5	—		0.4350	0.5	ug/L	87	61 - 126	—	—	1.0	—	12/16/2016 10:22	3605706
CCL	1,2-Dichloroethane	524.2	0.5	—		0.4690	0.5	ug/L	94	69 - 119	—	—	1.0	—	12/16/2016 10:22	3605706
CCL	1,1-Dichloroethylene	524.2	0.5	—		0.4480	0.5	ug/L	90	62 - 121	—	—	1.0	—	12/16/2016 10:22	3605706

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	--		0.4860	0.5	ug/L	97	67 - 117	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	trans-1,2-Dichloroethylene	524.2	0.5	--		0.4640	0.5	ug/L	93	63 - 119	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	Dichloromethane	524.2	0.5	--		0.4150	0.5	ug/L	83	38 - 154	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	1,2-Dichloropropane	524.2	0.5	--		0.4670	0.5	ug/L	93	65 - 121	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	Ethylbenzene	524.2	0.5	--		0.4650	0.5	ug/L	93	63 - 119	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	Styrene	524.2	0.5	--		0.4380	0.5	ug/L	88	54 - 133	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	Tetrachloroethylene	524.2	0.5	--		0.4570	0.5	ug/L	91	59 - 124	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	Toluene	524.2	0.5	--		0.4570	0.5	ug/L	91	65 - 119	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	1,2,4-Trichlorobenzene	524.2	0.5	--		0.4290	0.5	ug/L	86	57 - 150	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	1,1,1-Trichloroethane	524.2	0.5	--		0.4690	0.5	ug/L	94	61 - 116	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	1,1,2-Trichloroethane	524.2	0.5	--		0.4510	0.5	ug/L	90	66 - 116	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	Trichloroethylene	524.2	0.5	--		0.4610	0.5	ug/L	92	64 - 119	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	Vinyl chloride	524.2	0.2	--		0.4520	0.5	ug/L	90	52 - 130	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	1,2-Xylene	524.2	0.5	--		0.4490	0.5	ug/L	90	67 - 119	--	--	1.0	--	12/16/2016 10:22	3605706
CCL	1,3 + 1,4-Xylene	524.2	0.5	--		0.9090	1.0	ug/L	91	65 - 119	--	--	1.0	--	12/16/2016 10:22	3605706
LMB	IS-1,4-Difluorobenzene	524.2	N/A	--		516189	520192	ug/L	99	70 - 130	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	SS-Bromofluorobenzene	524.2	N/A	--		4.5560	5.0	ug/L	91	70 - 130	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	SS-1,2-Dichlorobenzene-d4	524.2	N/A	--		9.0850	10.0	ug/L	91	70 - 130	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	SS-1,2-Dichloroethane-d4	524.2	N/A	--		8.5410	10.0	ug/L	85	70 - 130	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	SS-Toluene-d8	524.2	N/A	--		9.2220	10.0	ug/L	92	70 - 130	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	Benzene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	Carbon tetrachloride	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	Chlorobenzene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	1,2-Dichlorobenzene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	1,4-Dichlorobenzene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	1,2-Dichloroethane	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	1,1-Dichloroethylene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	cis-1,2-Dichloroethylene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	trans-1,2-Dichloroethylene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	Dichloromethane	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	1,2-Dichloropropane	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	Ethylbenzene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	Naphthalene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	Styrene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	Tetrachloroethylene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	Toluene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	1,2,4-Trichlorobenzene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	1,1,1-Trichloroethane	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	1,1,2-Trichloroethane	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	Trichloroethylene	524.2	0.5	--	<	0.5		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707
LMB	Vinyl chloride	524.2	0.2	--	<	0.2		ug/L	--	--	--	--	1.0	--	12/16/2016 11:21	3605707

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-Xylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 11:21	3605707
LMB	1,3 + 1,4-Xylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 11:21	3605707
LTB	IS-1 4-Difluorobenzene	524.2	N/A	LTB-10/26/16, 17-01647		512854	520192	ug/L	99	70 - 130	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	SS-Bromofluorobenzene	524.2	N/A	LTB-10/26/16, 17-01647		4.5480	5.0	ug/L	91	70 - 130	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	SS-1,2-Dichlorobenzene-d4	524.2	N/A	LTB-10/26/16, 17-01647		8.7940	10.0	ug/L	88	70 - 130	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	SS-1,2-Dichloroethane-d4	524.2	N/A	LTB-10/26/16, 17-01647		9.0610	10.0	ug/L	91	70 - 130	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	SS-Toluene-d8	524.2	N/A	LTB-10/26/16, 17-01647		9.8740	10.0	ug/L	99	70 - 130	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	Benzene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	Carbon tetrachloride	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	Chlorobenzene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	1,2-Dichlorobenzene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	1,4-Dichlorobenzene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	1,2-Dichloroethane	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	1,1-Dichloroethylene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	cis-1,2-Dichloroethylene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	trans-1,2-Dichloroethylene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	Dichloromethane	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	1,2-Dichloropropane	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	Ethylbenzene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	Naphthalene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	Styrene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	Tetrachloroethylene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	Toluene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	1,2,4-Trichlorobenzene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	1,1,1-Trichloroethane	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	1,1,2-Trichloroethane	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	Vinyl chloride	524.2	0.2	LTB-10/26/16, 17-01647	<	0.2		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	1,2-Xylene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	1,3 + 1,4-Xylene	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
LTB	Xylenes, Total	524.2	0.5	LTB-10/26/16, 17-01647	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:05	3605534
FS	IS-1,4-Difluorobenzene	524.2	N/A	[illegible]		487835	520192	ug/L	94	70 - 130	—	—	1.0	—	12/16/2016 12:38	3605531
FS	SS-Bromofluorobenzene	524.2	N/A	[illegible]		4.7500	5.0	ug/L	95	70 - 130	—	—	1.0	—	12/16/2016 12:38	3605531
FS	SS-1,2-Dichlorobenzene-d4	524.2	N/A	[illegible]		8.8760	10.0	ug/L	89	70 - 130	—	—	1.0	—	12/16/2016 12:38	3605531
FS	SS-1,2-Dichloroethane-d4	524.2	N/A	[illegible]		9.7560	10.0	ug/L	98	70 - 130	—	—	1.0	—	12/16/2016 12:38	3605531
FS	SS-Toluene-d8	524.2	N/A	[illegible]		9.8520	10.0	ug/L	99	70 - 130	—	—	1.0	—	12/16/2016 12:38	3605531
FS	Benzene	524.2	0.5	[illegible]	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:38	3605531
FS	Carbon tetrachloride	524.2	0.5	[illegible]	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:38	3605531
FS	Chlorobenzene	524.2	0.5	[illegible]	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:38	3605531
FS	1,2-Dichlorobenzene	524.2	0.5	[illegible]	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:38	3605531
FS	1,4-Dichlorobenzene	524.2	0.5	[illegible]	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:38	3605531
FS	1,2-Dichloroethane	524.2	0.5	[illegible]	<	0.5		ug/L	—	—	—	—	1.0	—	12/16/2016 12:38	3605531

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	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	cis-1,2-Dichloroethylene	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	trans-1,2-Dichloroethylene	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	Dichloromethane	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	1,2-Dichloropropane	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	Ethylbenzene	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	Naphthalene	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	Styrene	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	Tetrachloroethylene	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	Toluene	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	1,2,4-Trichlorobenzene	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	1,1,1-Trichloroethane	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	1,1,2-Trichloroethane	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	Trichloroethylene	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	Vinyl chloride	524.2	0.2	17-01648 JBPHH Rep#E339-011	<	0.2		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	1,2-Xylene	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	1,3 + 1,4-Xylene	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
FS	Xylenes, Total	524.2	0.5	17-01648 JBPHH Rep#E339-011	<	0.5		ug/L	---	---	---	---	1.0	---	12/16/2016 12:38	3605531
CCC	IS-1,4-Difluorobenzene	524.2	N/A	---		450550	450550	ug/L	100	50 - 150	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	SS-Bromofluorobenzene	524.2	N/A	---		4.9350	5.0	ug/L	99	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	SS-1,2-Dichlorobenzene-d4	524.2	N/A	---		10.4000	10.0	ug/L	104	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	SS-1,2-Dichloroethane-d4	524.2	N/A	---		10.3580	10.0	ug/L	104	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	SS-Toluene-d8	524.2	N/A	---		9.8450	10.0	ug/L	98	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	Benzene	524.2	0.5	---		10.0140	10.0	ug/L	100	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	Carbon tetrachloride	524.2	0.5	---		9.8090	10.0	ug/L	98	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	Chlorobenzene	524.2	0.5	---		10.0840	10.0	ug/L	101	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	1,2-Dichlorobenzene	524.2	0.5	---		10.1610	10.0	ug/L	102	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	1,4-Dichlorobenzene	524.2	0.5	---		9.7790	10.0	ug/L	98	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	1,2-Dichloroethane	524.2	0.5	---		10.2810	10.0	ug/L	103	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	1,1-Dichloroethylene	524.2	0.5	---		9.4480	10.0	ug/L	94	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	cis-1,2-Dichloroethylene	524.2	0.5	---		9.9170	10.0	ug/L	99	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	trans-1,2-Dichloroethylene	524.2	0.5	---		9.6890	10.0	ug/L	97	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	Dichloromethane	524.2	0.5	---		9.9700	10.0	ug/L	100	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	1,2-Dichloropropane	524.2	0.5	---		10.1720	10.0	ug/L	102	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	Ethylbenzene	524.2	0.5	---		9.4330	10.0	ug/L	94	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	Naphthalene	524.2	0.5	---		11.2280	10.0	ug/L	112	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	Styrene	524.2	0.5	---		10.0790	10.0	ug/L	101	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	Tetrachloroethylene	524.2	0.5	---		9.3430	10.0	ug/L	93	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	Toluene	524.2	0.5	---		10.0110	10.0	ug/L	100	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	1,2,4-Trichlorobenzene	524.2	0.5	---		9.9840	10.0	ug/L	100	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214
CCC	1,1,1-Trichloroethane	524.2	0.5	---		9.7970	10.0	ug/L	98	70 - 130	---	---	1.0	---	12/16/2016 18:20	3606214

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 #
CCC	1 1,2-Trichloroethane	524.2	0.5	—		10.1540	10.0	ug/L	102	70 - 130	—	—	1.0	—	12/16/2016 18:20	3606214
CCC	Trichloroethylene	524.2	0.5	—		8.8880	10.0	ug/L	89	70 - 130	—	—	1.0	—	12/16/2016 18:20	3606214
CCC	Vinyl chloride	524.2	0.2	—		8.5080	10.0	ug/L	85	70 - 130	—	—	1 0	—	12/16/2016 18:20	3606214
CCC	1,2-Xylene	524.2	0.5	—		10.1770	10.0	ug/L	102	70 - 130	—	—	1 0	—	12/16/2016 18:20	3606214
CCC	1 3 + 1 4-Xylene	524.2	0.5	—		19.1180	20.0	ug/L	96	70 - 130	—	—	1 0	—	12/16/2016 18:20	3606214

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Run Log
Run ID: 224265 Method: 525.2

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
CCC	3610204		OS	DO	12/27/2016 12:00	525 2-DO-101216a.mth
CCC	3610205		OS	DO	12/27/2016 12:42	525 2-DO-101216a.mth
CCC	3610206		OS	DO	12/27/2016 13:25	525 2-DO-101216a.mth
LFB	3610199		RW	DO	12/27/2016 14:07	525 2-DO-101216a.mth
LFB	3610200		RW	DO	12/27/2016 15:31	525 2-DO-101216a.mth
LFB	3610201		RW	DO	12/27/2016 16:55	525 2-DO-101216a.mth
LMB	3610198		RW	DO	12/27/2016 18:20	525 2-DO-101216a.mth
FS	3605532	17-01646 JBPHH RedHill356-011	DW	DO	12/27/2016 19:02	525 2-DO-101216a.mth
CCC	3611805		OS	DO	12/28/2016 00:41	525 2-DO-101216a.mth
CCC	3611806		OS	DO	12/28/2016 01:23	525 2-DO-101216a.mth

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	---		1867000	1667000	ug/L	100	50 - 150	---	---	1.0	12/22/2016 07:43	12/27/2016 12:00	3610204
CCC	IS-Phenanthrene-d10	525.2	N/A	---		3287000	3287000	ug/L	100	50 - 150	---	---	1.0	12/22/2016 07:43	12/27/2016 12:00	3610204
CCC	IS-Pyrene-d10	525.2	N/A	---		2169000	2169000	ug/L	100	50 - 150	---	---	1.0	12/22/2016 07:43	12/27/2016 12:00	3610204
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		3.8630	5.0	ug/L	78	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 12:00	3610204
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		4.1220	5.0	ug/L	82	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 12:00	3610204
CCC	SS-Triphenylphosphate	525.2	N/A	---		5.5890	5.0	ug/L	112	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 12:00	3610204
CCC	Fluoranthene	525.2	0.1	---		4.8060	5.0	ug/L	96	73 - 122	---	---	1.0	12/22/2016 07:43	12/27/2016 12:00	3610204
CCC	IS-Chrysene-d12	525.2	N/A	---		2126000	2126000	ug/L	100	50 - 150	---	---	1.0	12/22/2016 07:43	12/27/2016 12:42	3610205
CCC	IS-Phenanthrene-d10	525.2	N/A	---		3394000	3394000	ug/L	100	50 - 150	---	---	1.0	12/22/2016 07:43	12/27/2016 12:42	3610205
CCC	IS-Pyrene-d10	525.2	N/A	---		2302000	2302000	ug/L	100	50 - 150	---	---	1.0	12/22/2016 07:43	12/27/2016 12:42	3610205
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		4.6720	5.0	ug/L	93	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 12:42	3610205
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		4.8370	5.0	ug/L	97	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 12:42	3610205
CCC	SS-Triphenylphosphate	525.2	N/A	---		6.0410	5.0	ug/L	121	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 12:42	3610205
CCC	Benzo(a)pyrene	525.2	0.02	---		5.3830	5.0	ug/L	108	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 12:42	3610205
CCC	Di(2-ethylhexyl)adipate	525.2	0.6	---		6.5290	5.0	ug/L	131	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 12:42	3610205
CCC	Di(2-ethylhexyl)phthalate	525.2	0.6	---		6.2210	5.0	ug/L	124	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 12:42	3610205
CCC	IS-Chrysene-d12	525.2	N/A	---		2085000	2085000	ug/L	100	50 - 150	---	---	1.0	12/22/2016 07:43	12/27/2016 13:25	3610206
CCC	IS-Phenanthrene-d10	525.2	N/A	---		3294000	3294000	ug/L	100	50 - 150	---	---	1.0	12/22/2016 07:43	12/27/2016 13:25	3610206
CCC	IS-Pyrene-d10	525.2	N/A	---		2325000	2325000	ug/L	100	50 - 150	---	---	1.0	12/22/2016 07:43	12/27/2016 13:25	3610206
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		3.7990	5.0	ug/L	76	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 13:25	3610206
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		4.8500	5.0	ug/L	97	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 13:25	3610206
CCC	SS-Triphenylphosphate	525.2	N/A	---		5.6620	5.0	ug/L	113	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 13:25	3610206
CCC	Acenaphthene	525.2	0.1	---		4.3360	5.0	ug/L	87	72 - 122	---	---	1.0	12/22/2016 07:43	12/27/2016 13:25	3610206
CCC	Acenaphthylene	525.2	0.1	---		5.2580	5.0	ug/L	105	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 13:25	3610206
CCC	Anthracene	525.2	0.1	---		4.8830	5.0	ug/L	98	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 13:25	3610206
CCC	Phenanthrene	525.2	0.1	---		4.3430	5.0	ug/L	87	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 13:25	3610206
CCC	Pyrene	525.2	0.1	---		4.6630	5.0	ug/L	93	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 13:25	3610206
LFB	IS-Chrysene-d12	525.2	N/A	---		2160000	2085000	ug/L	104	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 14:07	3610199
LFB	IS-Phenanthrene-d10	525.2	N/A	---		3582000	3294000	ug/L	109	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 14:07	3610199
LFB	IS-Pyrene-d10	525.2	N/A	---		2551000	2325000	ug/L	110	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 14:07	3610199
LFB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		4.0860	5.0	ug/L	82	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 14:07	3610199
LFB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		3.5880	5.0	ug/L	72	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 14:07	3610199
LFB	SS-Triphenylphosphate	525.2	N/A	---		5.7830	5.0	ug/L	116	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 14:07	3610199
LFB	Fluoranthene	525.2	0.1	---		4.9540	5.0	ug/L	99	74 - 125	---	---	1.0	12/22/2016 07:43	12/27/2016 14:07	3610199
LFB	IS-Chrysene-d12	525.2	N/A	---		2160000	2085000	ug/L	104	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 15:31	3610200
LFB	IS-Phenanthrene-d10	525.2	N/A	---		3474000	3294000	ug/L	105	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 15:31	3610200
LFB	IS-Pyrene-d10	525.2	N/A	---		2623000	2325000	ug/L	113	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 15:31	3610200
LFB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	---		4.6450	5.0	ug/L	93	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 15:31	3610200
LFB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	---		4.0890	5.0	ug/L	82	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 15:31	3610200
LFB	SS-Triphenylphosphate	525.2	N/A	---		6.1110	5.0	ug/L	122	70 - 130	---	---	1.0	12/22/2016 07:43	12/27/2016 15:31	3610200

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 #
LFB	Benzo(a)pyrene	525.2	0.02	—		4.8680	5.0	ug/L	97	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 15:31	3610200
LFB	Di(2-ethylhexyl)adipate	525.2	0.6	—		6.1450	5.0	ug/L	123	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 15:31	3610200
LFB	Di(2-ethylhexyl)phthalate	525.2	0.6	—		5.7310	5.0	ug/L	115	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 15:31	3610200
LFB	IS-Chrysene-d12	525.2	N/A	—		2303000	2085000	ug/L	110	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 18:55	3610201
LFB	IS-Phenanthrene-d10	525.2	N/A	—		3648000	3294000	ug/L	111	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 18:55	3610201
LFB	IS-Pyrene-d10	525.2	N/A	—		2694000	2325000	ug/L	116	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 18:55	3610201
LFB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	—		3.7220	5.0	ug/L	74	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 18:55	3610201
LFB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	—		4.1470	5.0	ug/L	83	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 18:55	3610201
LFB	SS-Triphenylphosphate	525.2	N/A	—		5.8880	5.0	ug/L	118	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 18:55	3610201
LFB	Acenaphthene	525.2	0.1	—		4.0170	5.0	ug/L	80	58 - 116	—	—	1.0	12/22/2016 07:43	12/27/2016 18:55	3610201
LFB	Acenaphthylene	525.2	0.1	—		4.5670	5.0	ug/L	92	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 18:55	3610201
LFB	Anthracene	525.2	0.1	—		4.5890	5.0	ug/L	92	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 18:55	3610201
LFB	Phenanthrene	525.2	0.1	—		4.1760	5.0	ug/L	84	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 18:55	3610201
LFB	Pyrene	525.2	0.1	—		4.6640	5.0	ug/L	93	70 - 130	—	—	1.0	12/22/2016 07:43	12/27/2016 18:55	3610201
LMB	IS-Chrysene-d12	525.2	N/A	—		1778000	2085000	ug/L	85	70 - 130	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	IS-Phenanthrene-d10	525.2	N/A	—		3207000	3294000	ug/L	97	70 - 130	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	IS-Pyrene-d10	525.2	N/A	—		2244000	2325000	ug/L	97	70 - 130	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	—		4.4230	5.0	ug/L	90	70 - 130	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	—		4.2450	5.0	ug/L	87	70 - 130	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	SS-Triphenylphosphate	525.2	N/A	—		5.9420	5.0	ug/L	121	70 - 130	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	Acenaphthene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	Acenaphthylene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	Anthracene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	Benzo(a)pyrene	525.2	0.02	—	<	0.02		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	Di(2-ethylhexyl)adipate	525.2	0.6	—	<	0.6		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	Di(2-ethylhexyl)phthalate	525.2	0.6	—	<	0.6		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	Fluoranthene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	Phenanthrene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
LMB	Pyrene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 18:20	3610198
FS	IS-Chrysene-d12	525.2	N/A	17-01648 JBP101 RunH8358-011		1886000	2085000	ug/L	90	70 - 130	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	IS-Phenanthrene-d10	525.2	N/A	17-01648 JBP101 RunH8358-011		3249000	3294000	ug/L	99	70 - 130	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	IS-Pyrene-d10	525.2	N/A	17-01648 JBP101 RunH8358-011		2471000	2325000	ug/L	106	70 - 130	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	SS-4,4'-Dichlorobiphenyl	525.2	N/A	17-01648 JBP101 RunH8358-011		4.4910	5.0	ug/L	94	70 - 130	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	17-01648 JBP101 RunH8358-011		4.4120	5.0	ug/L	92	70 - 130	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	SS-Triphenylphosphate	525.2	N/A	17-01648 JBP101 RunH8358-011		5.7280	5.0	ug/L	119	70 - 130	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	Acenaphthene	525.2	0.1	17-01648 JBP101 RunH8358-011	<	0.1		ug/L	—	—	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	Acenaphthylene	525.2	0.1	17-01648 JBP101 RunH8358-011	<	0.1		ug/L	—	—	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	Anthracene	525.2	0.1	17-01648 JBP101 RunH8358-011	<	0.1		ug/L	—	—	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	Benzo(a)pyrene	525.2	0.02	17-01648 JBP101 RunH8358-011	<	0.02		ug/L	—	—	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	Di(2-ethylhexyl)adipate	525.2	0.6	17-01648 JBP101 RunH8358-011	<	0.6		ug/L	—	—	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	Di(2-ethylhexyl)phthalate	525.2	0.6	17-01648 JBP101 RunH8358-011	<	0.6		ug/L	—	—	—	—	0.96	12/22/2016 07:43	12/27/2016 19:02	3605532

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	[illegible]	<	0.1		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	Phenanthrene	525.2	0.1	[illegible]	<	0.1		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 19:02	3605532
FS	Pyrene	525.2	0.1	[illegible]	<	0.1		ug/L	—	—	—	—	0.98	12/22/2016 07:43	12/27/2016 19:02	3605532
CCC	IS-Chrysene-d12	525.2	N/A	—		2152000	2152000	ug/L	100	50 - 150	—	—	1.0	12/22/2016 07:43	12/28/2016 00:41	3611605
CCC	IS-Phenanthrene-d10	525.2	N/A	—		3475000	3475000	ug/L	100	50 - 150	—	—	1.0	12/22/2016 07:43	12/28/2016 00:41	3611605
CCC	IS-Pyrene-d10	525.2	N/A	—		2305000	2305000	ug/L	100	50 - 150	—	—	1.0	12/22/2016 07:43	12/28/2016 00:41	3611605
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	—		4.6810	5.0	ug/L	94	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 00:41	3611605
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	—		4.6860	5.0	ug/L	94	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 00:41	3611605
CCC	SS-Triphenylphosphate	525.2	N/A	—		5.9680	5.0	ug/L	120	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 00:41	3611605
CCC	Benzo(a)pyrene	525.2	0.02	—		4.9490	5.0	ug/L	99	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 00:41	3611605
CCC	Di(2-ethylhexyl)adipate	525.2	0.6	—		6.6480	5.0	ug/L	133	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 00:41	3611605
CCC	Di(2-ethylhexyl)phthalate	525.2	0.6	—		6.2280	5.0	ug/L	125	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 00:41	3611605
CCC	IS-Chrysene-d12	525.2	N/A	—		2300000	2300000	ug/L	100	50 - 150	—	—	1.0	12/22/2016 07:43	12/28/2016 01:23	3611606
CCC	IS-Phenanthrene-d10	525.2	N/A	—		3651000	3651000	ug/L	100	50 - 150	—	—	1.0	12/22/2016 07:43	12/28/2016 01:23	3611606
CCC	IS-Pyrene-d10	525.2	N/A	—		2480000	2480000	ug/L	100	50 - 150	—	—	1.0	12/22/2016 07:43	12/28/2016 01:23	3611606
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	—		3.6270	5.0	ug/L	73	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 01:23	3611606
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	—		4.6080	5.0	ug/L	92	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 01:23	3611606
CCC	SS-Triphenylphosphate	525.2	N/A	—		5.7940	5.0	ug/L	116	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 01:23	3611606
CCC	Acenaphthene	525.2	0.1	—		4.1780	5.0	ug/L	84	72 - 122	—	—	1.0	12/22/2016 07:43	12/28/2016 01:23	3611606
CCC	Acenaphthylene	525.2	0.1	—		4.9250	5.0	ug/L	98	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 01:23	3611606
CCC	Anthracene	525.2	0.1	—		4.8510	5.0	ug/L	97	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 01:23	3611606
CCC	Phenanthrene	525.2	0.1	—		4.1730	5.0	ug/L	83	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 01:23	3611606
CCC	Pyrene	525.2	0.1	—		4.6160	5.0	ug/L	92	70 - 130	—	—	1.0	12/22/2016 07:43	12/28/2016 01:23	3611606

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCV	Continuing Cali. Verification		
CCB	Continuing Calibration Blank		
CCC	Continuing Calibration Check		
CCL	Continuing Calibration Low		
FS	Field Sample		
ICV	Initial Cali. Verification		
ICB	Initial Calibration Blank		
LFB	Laboratory Fortified Blank		
LMB	Laboratory Method Blank		
LRB	Laboratory Reagent Blank		
LTB	Laboratory Trip Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
UQCSM	Unextracted QCS Mid		

END OF REPORT

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Navy Facilities Engineering Command, Hawaii, PRP411, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON: 5	ESM:	POC: Kyle Teraoka	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Teraoka		Copy To: Arleen Mizuno / Ravi Mohandie	Copy To:	
NAVFAC HI OPBP6		NAVFAC HI EV1		
kyle.teraoka@navy.mil		arleen.mizuno@navy.mil / ravi.mohandie@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 (360-011)	Red Hill, TP001, Tap outside the Cl2 Bldg	DW	12/13/16	0925	3x40mL	Glass	Volatiles (524.2)	Ascorbic, HCl		17-01646	1-3	C	✓	
					2x1L	Glass	Semi-Volatiles (525.2)	Sulfite, HCl 0.2			4-5	C	✓	
					3x40mL	Glass	TPH as Diesel (JP-8) (8015)				6-8	C	✓	
					125mL	Plastic	Lead (200.8)	HNO_3 pH<2			9	C	✓	
Trip Blank			10/24/16		2x40mL	Glass	Volatiles	Ascorbic, HCl		17-01647	1-2	C	✓	

Sampling Information	Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill	Transported/Stored in: Cooler with ice	Cooler Temp: 0.8 °C	[ ] Return to customer	[✓] 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	[✓] 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	12/13/16	1312	DianeMorita	12/13/16	1312