ANALYTICAL SUMMARY REPORT

February 23, 2022

AECOM - Honolulu
1001 Bishop Street, Suite 1600
Honolulu HI, 96813-3698

Work Order: B21122105 Quote ID: 5912

Project Name: CV18F0126/60571032.02.46.01

Energy Laboratories Inc Billings MT received the following 5 samples from AECOM - Honolulu on 12/29/2021 for analysis.

Lab ID	Client Sample ID	Collect Date	Received Date	Matrix	Test
B21122105-001	ERH2249 (RHMW12A)	12/22/21 18:20	12/29/2021	Ground Water	Metals Digestion by SW3010A DRO-Liquid-Liquid Extraction SW3520C Separatory Funnel SW3510C Liquid-Liquid Ext. Carbon, Total Organic SW9060A Metals by ICP-MS, Dissolved SW6020 Metals by ICP-MS, Total SW6020 8260-Volatile Organic Compounds-Short List SW8260B EDB in Water by ECD SW8011 Gasoline Range Organics SW8015C Diesel Range Organics SW8015C Headspace Gas Analysis SW8015M Semi-Volatile Organic Compounds SW8270C Low Level PAH SW8270C SW8011 Microextraction
B21122105-002	ERH2248 Trip Blank-14575	12/22/21 18:20	12/29/2021	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B21122105-003	ERH2248 Trip Blank-14575	12/22/21 18:20	12/29/2021	Trip Blank	Gasoline Range Organics SW8015C
B21122105-004	ERH2248 Trip Blank-14451	12/22/21 18:20	12/29/2021	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B21122105-005	ERH2248 Trip Blank-14457	12/22/21 18:20	12/29/2021	Trip Blank	Headspace Gas Analysis SW8015M

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager.

Report Approved By:

Quality Assurance Manager

Digitally signed by
Leigh Ann. Wise
Date: 2022.02.23 15:52:03 -07:00

CLIENT: AECOM - Honolulu
Project: CV18F0126/60571032.02.46.01
Work Order: B21122105

Report Date: 2/23/2022

CASE NARRATIVE

General Comments:

For any question please contact your Project Manager at (406) 252-6325 or billingspm@energylab.com.

All analyses have been performed in accordance with DOD QSM Version 5.3 unless otherwise noted below. The specific methodologies used in obtaining the enclosed analytical results are indicated on the Analytical Summary Report and the Laboratory Analytical Report. The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted in the Work Order Receipt Checklist.

The tests listed below are accredited and meet the requirements of DoD QSM Version 5.3 as verified by ANSI-ASQ National Accreditation Board (ANAB) certificate number ADE-2588. Exceptions to this require client authorization and records documenting this approval are attached in the Sample Management Records. Accreditation may not be offered or required for all methods and analytes reported in this package. Refer to the certificate and scope of accreditation located at https://www.energylab.com/whyus/certifications-quality-control/ or contact your project manager.

Tests for Total Organic Carbon by SW9060A associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, PO Box 247, Casper, WY, EPA Number WY00002.

Project specific matrix quality control samples may not be reported if site specific samples were not submitted. Matrix quality control samples were performed on project samples where adequate volume was available. All quality control measures met criteria unless otherwise noted in the Analytical QC Exceptions report and in the Analysis Specific Comments below. Where available, sample management records are attached.

The Stage 4 Validation Package includes data reports for all analyses associated with the instrument calibration, quality control (QC) sample analysis, and sample analysis. All analytical data is within method specifications except as noted in the Analytical QC Exceptions report or the Analysis Specific Comments below. The analytical report identifies preparation batch and analytical run IDs associated with each result for a sample. Only the raw data associated with the parameters listed on this report should be validated.

Analysis Specific Comments:

An Analytical QC Exceptions Report has been attached, summarizing all qualified QC results. Benzidine and Bromomethane are known very reactive compounds and often recover poorly. Where qualified, an analyte exceeded quality control limits, but was not detected in the associated sample(s).

ENERGY LABORATORIES
Trust our People. Trust our Data.

Chain of Custody & Analytical Request Record – DoD Project

www.energylab.com COC#202112-53 NOI Page 1 of 1

Account Information (Billing information)

Company/Name	AECOM
Contact	Alethea Ramos / Margie Pascua
Phone	808-529-7283 / 808-356-5373
Mailing Address	1001 Bishop St., Suite 1600
City, State, Zip	Honolulu, HI 96813
Email	alethea.ramos@aecom.com / margie.pascua@aecom.com
Receive Invoice	☐Hard Copy ☑Email
Receive Report	☐Hard Copy ☑Email
Purchase Order	N/A
Quote	N/A
Bottle Order	N/A

Report Information (If different than Account Information)

Company/Name	AECOM
Contact	see Account information
Phone	
Mailing Address	
City, State, Zip	
Email	USAPimaging@aecom.com
Receive Report	☐Hard Copy ☐Email
Special Report/Formats:	☑LEVEL IV ☐NELAC ☑EDD/EDT (contact laboratory) ☐Other

Comments

1 Project performed under DoD QSM
2. TPH-d/o needs 3520 extraction
3. Preliminary data (or level 1) in 1-2 business days; Level IV report in 10 working days.
4. Note NOI log is separate from other COC's.
5. *SVOC/VOC (full suite), PAH SIM (naphthalene, 1-methylnaphthalene, 2-methylnaphthalene)

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126, 60571032.02.46.01
Sampler Name	AE, SW, RS, BL
Sampler Phone	808-393-6607
Sample Origin State	Hawaii
EPA/State Compliance	☐Yes ☐No

The following tests will be subcontracted to other certified laboratories as shown. Signing this COC is authorization to subcontract the analyses as indicated.

Analysis	Subcontract Lab
TOC	Energy Laboratories Inc , Casper

Matrix Codes

A - Air
W - Water
S - Soils/Solids
V - Vegetation
B - Bioassay
O - Other
DW - Drinking Water

All turnaround times are standard unless marked as RUSH.

Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling – See Instructions Page

	Sample Identification (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers	Matrix (See Codes Above)	8260 VOC's (Full Suite) + DCA* [(6) 40ml VOA w/HCL]	8015 TPH-g [(3) 40ml VOA w/HCL]	RSK175 Methane [(2) 40ml VOA w/H2SO4]	8011 EDB [(3) 40ml VOA w/ HCL]	8270D SVOC (Full Suite)* PAH 8270D SIM [(2) 1-L AG]	EPA 3630/8015 TPH-d/o +SGC [(2) 1-L AG w/H2SO4]	EPA 9060 TOC [(2) 250ml AG w/H3PO4]	EPA 6020 Total Lead [(1) 500ml HDPE w/HNO3]	EPA 6020 Diss Lead (Field Filtered) [(1) 500ml HDPE w/HNO3]	See Attached	RUSH TAT	ELI LAB ID* Laboratory Use Only
1	ERH2249 (RHMW12A)	12/22/21	14:20	22	GW	X	X	X	X	X	X	X		X		✓	D2112 2105-001
2	ERH2248 (Trip Blank)	12/22/21	14:15	8	WQ	X	X	X	X							✓	-002, 003, 004, 005
3																	
4	TB 8260: 14575																-002
5	TB GRO: 14575																-003
6	TB 8011: 14457																-004
7	TB Methane: 14457																-005
8	TB 12/24/21																
9																	
10																	

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Tianzhen Nie	12/24/21 15:00				
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print)	Date/Time	Signature
				Tyler Cassel	12/29/21 0845	

LABORATORY USE ONLY

Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp	Temp Blank Y N	On Ice Y N	Payment Type CC Cash Check	Amount $	Receipt Number (cash/check only)
				5.4°C					

Work Order Receipt Checklist

AECOM - Honolulu

B21122105

Login completed by:	Leslie S. Cadreau	Date Received:	12/29/2021
Reviewed by:	BL2000\gmccartney	Received by:	tjg
Reviewed Date:	12/30/2021	Carrier name:	FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	5.4°C On Ice		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	Not Applicable ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

The collection time indicated on the Chain of Custody for all samples is in Hawaii-Aleutian Standard Time. The collection time has been converted (+4 Hours) to Mountain Standard Time.

The sample for Total and Dissolved Lead, Methane, 8260, Gasoline Range Organics, 8011 and all the Trip Blanks were not received in containers provided by Energy Laboratories. Preservative traceability is not available for these containers.

Custody seals were not present on the Metals and one of the two 8270 containers.

Total Lead was not marked on the Chain of Custody. A container was received. Proceed with Total Lead analysis per Shari Endy, Energy Laboratories Project Manager.

Qualifiers and Abbreviations

Qualifier	Qualifier Description
##	Limit of Quantitation (LOQ) for this analyte exceeds the Maximum Contaminant Level (MCL)
*	Result exceeds the Maximum Contaminant Level (MCL)
A	The analyte level was greater than four times the spike level - in accordance with the method, percent recovery is not calculated
B	Analyte detected in the method blank
C	Continuing calibration verification was outside of the quality control advisory limits
D	Limit of Quantitation (LOQ) increased due to sample matrix
E	Estimated value - result exceeds the instrument upper quantitation limit
H	Analysis performed past the method holding time
J	The reported result is an estimated value
L	Lowest Limit of Quantitation (LOQ) available for the analytical method used
N	Analyte concentration was not sufficiently high to calculate a Relative Percent Difference (RPD) for the serial dilution test
O	Diluted out
P	Poor method performance - method validations have shown no recoveries at low concentrations or method performance was erratic
Q	Values reported below the Limit of Quantitation (LOQ) are statistically invalid
R	Relative Percent Difference (RPD) exceeds advisory limit
S	Spike recovery outside of advisory limits
T	Analyte detected in the associated trip blank
U	Not detected at the Limit of Detection (LOD)
V	The RPD value for this duplicate represents the RER value and the RPDLimit of 2 is the RER upper limit.

Qualifiers and Abbreviations

Abbreviation

Reporting	Explanation of Abbreviation
DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCL	Maximum Contaminant Level
MDC	Minimum Detectable Concentration
ND	Not detected at the Limit of Quantitaton (LOQ)
RBSL	Risk-Based Screening Levels
REC	Recovery
RER	Relative Error Ratio
RPD	Relative Percent Difference
SPK	Spike

Sample Types	Explanation of Abbreviation
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification Standard
DUP	Sample Duplicate
ICSA	Interference Check Sample A
ICSAB	Interference Check Sample AB
ICV	Initial Calibration Verification Standard
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LFB	Laboratory Fortified Blank
LRB	Laboratory Reagent Blank
MBLK	Method Blank
MS	Sample Matrix Spike
MSD	Sample Matrix Spike Duplicate
PDS	Post Digestion/Distillation Spike
QCS	Quality Control Sample
SD	Serial Dilution
SRM	Standard Reference Material

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2249 (RHMW12A)
Project: CV18F0126/60571032.02.46.01
Matrix: Ground Water

Lab ID: B21122105-001
Collection Date: 12/22/2021 18:20
Date Received: 12/29/2021
Report Date: 02/23/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.3 to 0.4	0.34	mg/L	1	J	0.50	0.50	0.17		SW9060A	01/4/2022 19:42/eli-ca	SUB-C278455 : 11	C_R278455
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	01/6/2022 17:47/srh	ICPMS207-B_220106A : 62	R372863
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	01/6/2022 17:53/srh	ICPMS207-B_220106A : 63	162587
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Bromomethane	ND	ug/L	1	U	1.0	0.50	0.25		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2249 (RHMW12A)
Project: CV18F0126/60571032.02.46.01
Matrix: Ground Water

Lab ID: B21122105-001
Collection Date: 12/22/2021 18:20
Date Received: 12/29/2021
Report Date: 02/23/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Surr: Dibromofluoromethane	104.0	%REC	1		80-119				SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Surr: 1,2-Dichloroethane-d4	101.0	%REC	1		81-118				SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Surr: Toluene-d8	103.0	%REC	1		89-112				SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	12/30/2021 19:08/sbd	VOA5975C.I_211230A : 16	R372936
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	12/30/2021 20:18/src	GECD.I_211230A : 19	162607
Surr: 1,1,1,2-Tetrachloroethane	81.0	%REC	1		70-130				SW8011	12/30/2021 20:18/src	GECD.I_211230A : 19	162607
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	12/30/2021 12:52/jp	PE 1_211230A : 8	R372587
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	12/30/2021 12:52/jp	PE 1_211230A : 8	R372587
Surr: Trifluorotoluene	78.0	%REC	1		70-130				SW8015C	12/30/2021 12:52/jp	PE 1_211230A : 8	R372587
- Note 1: C6 to C10 is defined as all hydrocarbons eluting between 2-Methylpentane and 1,2,4-Trimethylbenzene.												
- Note 2: Total Purgeable Hydrocarbons are defined as the total hydrocarbon response regardless of elution time.												
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Diesel Range Organics (C10 to C24)	ND	mg/L	1	U	0.30	0.15	0.038		SW8015C	01/1/2022 14:47/amn	GCFID-HP5-B_211230A : 18	162579
Oil Range Hydrocarbons (C24 to C40)	ND	mg/L	1	U	0.30	0.15	0.085		SW8015C	01/1/2022 14:47/amn	GCFID-HP5-B_211230A : 18	162579
Total Extractable Hydrocarbons	ND	mg/L	1	U	0.30	0.15	0.073		SW8015C	01/1/2022 14:47/amn	GCFID-HP5-B_211230A : 18	162579
Surr: o-Terphenyl	84.0	%REC	1		56-125				SW8015C	01/1/2022 14:47/amn	GCFID-HP5-B_211230A : 18	162579
Surr: n-Triacontane	99.0	%REC	1		50-150				SW8015C	01/1/2022 14:47/amn	GCFID-HP5-B_211230A : 18	162579

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21122105-001
Client: AECOM - Honolulu
Collection Date: 12/22/2021 18:20
Client Sample ID: ERH2249 (RHMW12A)
Date Received: 12/29/2021
Project: CV18F0126/60571032.02.46.01
Report Date: 02/23/2022
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
- Since there were no detectable hydrocarbons, Silica Gel Treatment (SGT) results are equivalent to non-SGT results.												
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/3/2022 11:24/jdw	FID-HEADSPACE_220103A : 12	R372625
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
1-Methylnaphthalene	ND	ug/L	1	U	10	4.8	2.3		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.1		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.6	4.1		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
2,6-Dinitrotoluene	ND	ug/L	1	U	10	4.8	3.1		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
2-Chloronaphthalene	ND	ug/L	1	U	10	4.8	2.1		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
2-Chlorophenol	ND	ug/L	1	U	10	4.8	2.4		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
2-Methylnaphthalene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
2-Nitrophenol	ND	ug/L	1	U	10	4.8	2.3		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
3,3´-Dichlorobenzidine	ND	ug/L	1	U	10	4.8	2.0		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.6	2.2		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.7		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
4-Chlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.8	2.0		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
4-Nitrophenol	ND	ug/L	1	U	10	9.6	2.4		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Acenaphthene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Acenaphthylene	ND	ug/L	1	U	10	4.8	1.5		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Anthracene	ND	ug/L	1	U	10	4.8	1.2		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Azobenzene	ND	ug/L	1	U	10	4.8	1.0		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Benzidine	ND	ug/L	1	U	10	9.6	6.5		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Benzo(a)anthracene	ND	ug/L	1	U	10	4.8	0.82		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Benzo(a)pyrene	ND	ug/L	1	U	10	4.8	1.2		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Benzo(b)fluoranthene	ND	ug/L	1	U	10	4.8	0.87		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Benzo(g,h,i)perylene	ND	ug/L	1	U	10	4.8	0.97		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Benzo(k)fluoranthene	ND	ug/L	1	U	10	4.8	0.93		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.8	1.3		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.8	2.5		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2249 (RHMW12A)
Project: CV18F0126/60571032.02.46.01
Matrix: Ground Water

Lab ID: B21122105-001
Collection Date: 12/22/2021 18:20
Date Received: 12/29/2021
Report Date: 02/23/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.8	1.4		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.8	1.8		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Butylbenzylphthalate	ND	ug/L	1	U	10	4.8	1.5		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Chrysene	ND	ug/L	1	U	10	4.8	1.1		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.8	0.90		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.8	1.3		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Dibenzo(a,h)anthracene	ND	ug/L	1	U	10	4.8	1.1		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Diethyl phthalate	ND	ug/L	1	U	10	4.8	2.1		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Dimethyl phthalate	ND	ug/L	1	U	10	4.8	1.7		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Fluoranthene	ND	ug/L	1	U	10	4.8	0.85		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Fluorene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Hexachlorobenzene	ND	ug/L	1	U	10	4.8	1.3		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Hexachlorobutadiene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Hexachloroethane	ND	ug/L	1	U	10	4.8	1.7		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	10	4.8	1.2		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Isophorone	ND	ug/L	1	U	10	4.8	1.6		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
m+p-Cresols	ND	ug/L	1	U	10	4.8	1.7		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.8	1.1		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Naphthalene	ND	ug/L	1	U	10	4.8	1.7		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Nitrobenzene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
o-Cresol	ND	ug/L	1	U	10	4.8	1.8		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Pentachlorophenol	ND	ug/L	1	U	10	9.6	4.1		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Phenanthrene	ND	ug/L	1	U	10	4.8	0.75		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Phenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Pyrene	ND	ug/L	1	U	10	4.8	0.89		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Pyridine	ND	ug/L	1	U	10	4.8	3.1		SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Surr: 2,4,6-Tribromophenol	91.0	%REC	1		43-140				SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Surr: 2-Fluorobiphenyl	77.0	%REC	1		44-119				SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Surr: 2-Fluorophenol	49.0	%REC	1		19-119				SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Surr: Nitrobenzene-d5	70.0	%REC	1		44-120				SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Surr: Phenol-d5	40.0	%REC	1		10-65				SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
Surr: Terphenyl-d14	98.0	%REC	1		50-134				SW8270C	01/8/2022 03:25/dsm	SV5973N.I_220107B : 4	162577
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM												
1-Methylnaphthalene	ND	ug/L	1	U	0.10	0.048	0.020		SW8270C	01/10/2022 18:12/jph	SV5975.I_220110A : 14	162577
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.048	0.017		SW8270C	01/10/2022 18:12/jph	SV5975.I_220110A : 14	162577

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21122105-001
Client: AECOM - Honolulu
Collection Date: 12/22/2021 18:20
Client Sample ID: ERH2249 (RHMW12A)
Date Received: 12/29/2021
Project: CV18F0126/60571032.02.46.01
Report Date: 02/23/2022
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM												
Naphthalene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270C	01/10/2022 18:12/jph	SV5975.I_220110A : 14	162577

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2248 Trip Blank-14575
Project: CV18F0126/60571032.02.46.01
Matrix: Trip Blank

Lab ID: B21122105-002
Collection Date: 12/22/2021 18:20
Date Received: 12/29/2021
Report Date: 02/23/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Bromomethane	ND	ug/L	1	U	1.0	0.50	0.25		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21122105-002
Client: AECOM - Honolulu
Collection Date: 12/22/2021 18:20
Client Sample ID: ERH2248 Trip Blank-14575
Date Received: 12/29/2021
Project: CV18F0126/60571032.02.46.01
Report Date: 02/23/2022
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Surr: Dibromofluoromethane	106.0	%REC	1		80-119				SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Surr: 1,2-Dichloroethane-d4	102.0	%REC	1		81-118				SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Surr: Toluene-d8	102.0	%REC	1		89-112				SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936
Surr: p-Bromofluorobenzene	104.0	%REC	1		85-114				SW8260B	12/30/2021 16:51/sbd	VOA5975C.I_211230A : 11	R372936

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21122105-003
Client: AECOM - Honolulu
Collection Date: 12/22/2021 18:20
Client Sample ID: ERH2248 Trip Blank-14575
Date Received: 12/29/2021
Project: CV18F0126/60571032.02.46.01
Report Date: 02/23/2022
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	12/30/2021 11:09/jp	PE 1_211230A : 6	R372587
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	12/30/2021 11:09/jp	PE 1_211230A : 6	R372587
Surr: Trifluorotoluene	79.0	%REC	1		70-130				SW8015C	12/30/2021 11:09/jp	PE 1_211230A : 6	R372587

- Note 1: C6 to C10 is defined as all hydrocarbons eluting between 2-Methylpentane and 1,2,4-Trimethylbenzene.
- Note 2: Total Purgeable Hydrocarbons are defined as the total hydrocarbon response regardless of elution time.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2248 Trip Blank-14451
Project: CV18F0126/60571032.02.46.01
Matrix: Trip Blank

Lab ID: B21122105-004
Collection Date: 12/22/2021 18:20
Date Received: 12/29/2021
Report Date: 02/23/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0050	0.0026		SW8011	12/30/2021 20:38/src	GECD.I_211230A : 20	162607
Surr: 1,1,1,2-Tetrachloroethane	79.0	%REC	1		70-130				SW8011	12/30/2021 20:38/src	GECD.I_211230A : 20	162607

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2248 Trip Blank-14457
Project: CV18F0126/60571032.02.46.01
Matrix: Trip Blank

Lab ID: B21122105-005
Collection Date: 12/22/2021 18:20
Date Received: 12/29/2021
Report Date: 02/23/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/3/2022 11:33/jdw	FID-HEADSPACE_220103A : 13	R372625

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SUB-C278455: 2 **SampType:** Method Blank **Batch ID:** C_R278455
Method: SW9060A **Analysis Date:** 01/04/2022 16:09 **Prep Date:**
Lab ID: MBLK **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	ND	0.20									

Associated Samples: **B21122105-001E**
- TOC Range is 0.1 to 0.2

Run ID: Run Order: SUB-C278455: 1 **SampType:** Laboratory Control Sample **Batch ID:** C_R278455
Method: SW9060A **Analysis Date:** 01/04/2022 15:28 **Prep Date:**
Lab ID: LCS **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.4	0.50	5.0		108.0	91	111				

Associated Samples: **B21122105-001E**
- TOC Range is 5.2 to 5.5

Run ID: Run Order: SUB-C278455: 5 **SampType:** Sample Matrix Spike **Batch ID:** C_R278455
Method: SW9060A **Analysis Date:** 01/04/2022 21:03 **Prep Date:**
Lab ID: C22010050-001EMS **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.7	0.50	5.0	0.57	103.0	91	111				

Associated Samples: **B21122105-001E**
- TOC Range is 5.6 to 5.7

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SUB-C278455: 6 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** C_R278455
Method: SW9060A **Analysis Date:** 01/04/2022 21:46 **Prep Date:**
Lab ID: C22010050-001EMSD **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.8	0.50	5.0	0.57	104.0	91	111	5.7	1.6	10.0	

Associated Samples: **B21122105-001E**
- TOC Range is 5.7 to 5.8

Run ID: Run Order: SUB-C278455: 3 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R278455
Method: SW9060A **Analysis Date:** 01/04/2022 16:48 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.2	0.50	5.0		105.0	90	110				

Associated Samples: **B21122105-001E**
- TOC Range is 5.2 to 5.3

Run ID: Run Order: SUB-C278455: 7 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R278455
Method: SW9060A **Analysis Date:** 01/05/2022 01:57 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.3	0.50	5.0		105.0	90	110				

Associated Samples: **B21122105-001E**
- TOC Range is 5.3 to 5.3

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: ICPMS207-B_220106A: 20 **SampType:** Method Blank **Batch ID:** R372863
Method: SW6020 **Analysis Date:** 01/06/2022 13:32 **Prep Date:**
Lab ID: LRB **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	ND	0.0005									

Associated Samples: **B21122105-001A**

Run ID: Run Order: ICPMS207-B_220106A: 21 **SampType:** Laboratory Fortified Blank **Batch ID:** R372863
Method: SW6020 **Analysis Date:** 01/06/2022 13:38 **Prep Date:**
Lab ID: LFB **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.050	0.001	0.050		100.0	88	115				

Associated Samples: **B21122105-001A**

Run ID: Run Order: ICPMS207-B_220106A: 68 **SampType:** Sample Matrix Spike **Batch ID:** R372863
Method: SW6020 **Analysis Date:** 01/06/2022 18:23 **Prep Date:**
Lab ID: B21122168-001AMS **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.048	0.001	0.050	0	95.0	88	115				

Associated Samples: **B21122105-001A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: ICPMS207-B_220106A: 69 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372863
Method: SW6020 **Analysis Date:** 01/06/2022 18:29 **Prep Date:**
Lab ID: B21122168-001AMSD **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.050	0.001	0.050	0	100.0	88	115	0.048	4.3	20.0	

Associated Samples: **B21122105-001A**

Run ID: Run Order: ICPMS207-B_220106A: 65 **SampType:** Serial Dilution **Batch ID:** R372863
Method: SW6020 **Analysis Date:** 01/06/2022 18:05 **Prep Date:**
Lab ID: B21122168-001ADIL **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.002	0.001						0		10.0	N

Associated Samples: **B21122105-001A**

Run ID: Run Order: ICPMS207-B_220106A: 28 **SampType:** Method Blank **Batch ID:** 162587
Method: SW6020 **Analysis Date:** 01/06/2022 14:21 **Prep Date:** 12/29/2021 15:43
Lab ID: MB-162587 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	ND	0.0005									

Associated Samples: **B21122105-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: ICPMS207-B_220106A: 33 **SampType:** Laboratory Control Sample **Batch ID:** 162587
Method: SW6020 **Analysis Date:** 01/06/2022 14:52 **Prep Date:** 12/29/2021 15:43
Lab ID: LCS4-162587 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.101	0.001	0.100		101.0	88	115				

Associated Samples: **B21122105-001B**

Run ID: Run Order: ICPMS207-B_220106A: 50 **SampType:** Sample Matrix Spike **Batch ID:** 162587
Method: SW6020 **Analysis Date:** 01/06/2022 16:35 **Prep Date:** 12/29/2021 15:43
Lab ID: B21122088-001BMS4 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.102	0.001	0.100	0	102.0	88	115				

Associated Samples: **B21122105-001B**

Run ID: Run Order: ICPMS207-B_220106A: 51 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162587
Method: SW6020 **Analysis Date:** 01/06/2022 16:40 **Prep Date:** 12/29/2021 15:43
Lab ID: B21122088-001BMSD4 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.104	0.001	0.100	0	104.0	88	115	0.102	1.9	20.0	

Associated Samples: **B21122105-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: ICPMS207-B_220106A: 49 **SampType:** Post Digestion/Distillation Spike **Batch ID:** 162587
Method: SW6020 **Analysis Date:** 01/06/2022 16:28 **Prep Date:** 12/29/2021 15:43
Lab ID: B21122088-001BPDS1 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.050	0.001	0.052	0	96.0	80	120				

Associated Samples: **B21122105-001B**

Run ID: Run Order: ICPMS207-B_220106A: 48 **SampType:** Serial Dilution **Batch ID:** 162587
Method: SW6020 **Analysis Date:** 01/06/2022 16:22 **Prep Date:** 12/29/2021 15:43
Lab ID: B21122088-001BDIL **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	ND	0.001						0		10.0	N

Associated Samples: **B21122105-001B**

Run ID: Run Order: ICPMS207-B_220106A: 52 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372863
Method: SW6020 **Analysis Date:** 01/06/2022 16:46 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.051	0.001	0.050		102.0	90	110				

Associated Samples: **B21122105-001A, B21122105-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: ICPMS207-B_220106A: 66 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372863
Method: SW6020 **Analysis Date:** 01/06/2022 18:11 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.052	0.001	0.050		104.0	90	110				

Associated Samples: **B21122105-001A, B21122105-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 6 **SampType:** Method Blank **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 14:33 **Prep Date:**
Lab ID: MBLKA123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromochloromethane	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chlorodibromomethane	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
2-Chlorotoluene	ND	0.50									
Dibromomethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
4-Chlorotoluene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3-Dichloropropane	ND	0.50									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 6 **SampType:** Method Blank **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 14:33 **Prep Date:**
Lab ID: MBLKA123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,2-Dichloropropane	ND	0.50									
1,1-Dichloropropene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
trans-1,3-Dichloropropene	ND	0.50									
Ethylbenzene	ND	0.50									
Methyl tert-butyl ether (MTBE)	ND	0.50									
Methyl ethyl ketone	ND	10									
Methylene chloride	ND	0.50									
Styrene	ND	0.50									
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
Vinyl chloride	ND	0.50									
m+p-Xylenes	ND	0.50									
o-Xylene	ND	0.50									
Xylenes, Total	ND	0.50									
Surr: 1,2-Dichloroethane-d4	9.9	0.50	10		99.0	81	118				
Surr: Dibromofluoromethane	10	0.50	10		101.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10		103.0	85	114				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 6 **SampType:** Method Blank **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 14:33 **Prep Date:**
Lab ID: MBLKA123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10	0.50	10		105.0	89	112				

Associated Samples: **B21122105-001G, B21122105-002A**

Run ID: Run Order: VOA5975C.I_211230A: 5 **SampType:** Laboratory Control Sample **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 14:06 **Prep Date:**
Lab ID: LCSA123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	4.8	0.50	5.0		96.0	79	120				
Bromobenzene	5.0	0.50	5.0		100.0	80	120				
Bromochloromethane	4.9	0.50	5.0		97.0	78	123				
Bromodichloromethane	4.9	0.50	5.0		98.0	79	125				
Bromoform	5.0	0.50	5.0		100.0	66	130				
Bromomethane	5.0	0.50	5.0		101.0	53	141				
Carbon tetrachloride	4.7	0.50	5.0		94.0	72	136				
Chlorobenzene	5.0	0.50	5.0		99.0	82	118				
Chlorodibromomethane	4.8	0.50	5.0		96.0	74	126				
Chloroethane	4.4	0.50	5.0		88.0	60	138				
Chloroform	4.5	0.50	5.0		90.0	79	124				
Chloromethane	4.4	0.50	5.0		89.0	50	139				
1,2-Dibromoethane	4.7	0.50	5.0		94.0	78	122				
2-Chlorotoluene	4.8	0.50	5.0		96.0	79	122				
Dibromomethane	4.7	0.50	5.0		93.0	79	123				
1,2-Dichlorobenzene	4.7	0.50	5.0		94.0	80	119				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 5 **SampType:** Laboratory Control Sample **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 14:06 **Prep Date:**
Lab ID: LCSA123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
4-Chlorotoluene	5.0	0.50	5.0		99.0	78	122				
1,3-Dichlorobenzene	5.0	0.50	5.0		100.0	80	119				
1,4-Dichlorobenzene	4.8	0.50	5.0		96.0	79	118				
Dichlorodifluoromethane	4.4	0.50	5.0		87.0	32	152				
1,1-Dichloroethane	4.9	0.50	5.0		98.0	77	125				
1,2-Dichloroethane	4.6	0.50	5.0		93.0	73	128				
1,1-Dichloroethene	4.8	0.50	5.0		96.0	71	131				
cis-1,2-Dichloroethene	4.7	0.50	5.0		94.0	78	123				
trans-1,2-Dichloroethene	4.9	0.50	5.0		99.0	75	124				
1,2-Dichloropropane	4.8	0.50	5.0		95.0	78	122				
1,3-Dichloropropane	4.7	0.50	5.0		93.0	80	119				
2,2-Dichloropropane	5.1	0.50	5.0		101.0	60	139				
1,1-Dichloropropene	4.5	0.50	5.0		91.0	79	125				
cis-1,3-Dichloropropene	4.5	0.50	5.0		91.0	75	124				
trans-1,3-Dichloropropene	4.9	0.50	5.0		98.0	73	127				
Ethylbenzene	4.8	0.50	5.0		96.0	79	121				
Methyl tert-butyl ether (MTBE)	4.8	0.50	5.0		96.0	71	124				
Methyl ethyl ketone	47	10	50		95.0	56	143				
Methylene chloride	4.6	0.50	5.0		92.0	74	124				
Styrene	5.1	0.50	5.0		103.0	78	123				
1,1,1,2-Tetrachloroethane	4.8	0.50	5.0		96.0	78	124				
1,1,2,2-Tetrachloroethane	4.7	0.50	5.0		95.0	71	121				
Tetrachloroethene	5.0	0.50	5.0		101.0	74	129				
Toluene	5.0	0.50	5.0		100.0	80	121				
1,1,1-Trichloroethane	4.8	0.50	5.0		95.0	74	131				
1,1,2-Trichloroethane	4.7	0.50	5.0		95.0	80	119				
Trichloroethene	4.7	0.50	5.0		94.0	79	123				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 5 **SampType:** Laboratory Control Sample **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 14:06 **Prep Date:**
Lab ID: LCSA123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Trichlorofluoromethane	4.1	0.50	5.0		82.0	65	141				
1,2,3-Trichloropropane	4.5	0.50	5.0		90.0	73	125				
Vinyl chloride	4.6	0.50	5.0		93.0	58	137				
m+p-Xylenes	9.8	0.50	10		98.0	80	121				
o-Xylene	5.1	0.50	5.0		101.0	78	122				
Xylenes, Total	15	0.50	15		99.0	79	121				
Surr: 1,2-Dichloroethane-d4	9.5	0.50	10		95.0	81	118				
Surr: Dibromofluoromethane	10	0.50	10		101.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10		101.0	85	114				
Surr: Toluene-d8	10	0.50	10		105.0	89	112				

Associated Samples: **B21122105-001G, B21122105-002A**

Run ID: Run Order: VOA5975C.I_211230A: 19 **SampType:** Sample Matrix Spike **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 20:31 **Prep Date:**
Lab ID: B21122168-001FMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	4.8	0.50	5.0	0.0	97.0	79	120				
Bromobenzene	5.0	0.50	5.0	0.0	100.0	80	120				
Bromochloromethane	5.0	0.50	5.0	0.0	101.0	78	123				
Bromodichloromethane	4.9	0.50	5.0	0.0	99.0	79	125				
Bromoform	5.5	0.50	5.0	0.0	111.0	66	130				
Bromomethane	4.7	0.50	5.0	0.0	94.0	53	141				
Carbon tetrachloride	4.9	0.50	5.0	0.0	98.0	72	136				
Chlorobenzene	5.0	0.50	5.0	0.0	101.0	82	118				
Chlorodibromomethane	5.1	0.50	5.0	0.0	103.0	74	126				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 19 **SampType:** Sample Matrix Spike **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 20:31 **Prep Date:**
Lab ID: B21122168-001FMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Chloroethane	4.5	0.50	5.0	0.0	91.0	60	138				
Chloroform	4.6	0.50	5.0	0.0	91.0	79	124				
Chloromethane	4.4	0.50	5.0	0.0	88.0	50	139				
1,2-Dibromoethane	5.2	0.50	5.0	0.0	104.0	78	122				
2-Chlorotoluene	4.7	0.50	5.0	0.0	95.0	79	122				
Dibromomethane	5.0	0.50	5.0	0.0	100.0	79	123				
1,2-Dichlorobenzene	4.8	0.50	5.0	0.0	97.0	80	119				
4-Chlorotoluene	4.9	0.50	5.0	0.0	97.0	78	122				
1,3-Dichlorobenzene	4.9	0.50	5.0	0.0	99.0	80	119				
1,4-Dichlorobenzene	4.7	0.50	5.0	0.0	94.0	79	118				
Dichlorodifluoromethane	4.3	0.50	5.0	0.0	86.0	32	152				
1,1-Dichloroethane	5.0	0.50	5.0	0.0	100.0	77	125				
1,2-Dichloroethane	5.0	0.50	5.0	0.17	97.0	73	128				
1,1-Dichloroethene	5.0	0.50	5.0	0.0	100.0	71	131				
cis-1,2-Dichloroethene	4.8	0.50	5.0	0.0	96.0	78	123				
trans-1,2-Dichloroethene	5.0	0.50	5.0	0.0	100.0	75	124				
1,2-Dichloropropane	4.9	0.50	5.0	0.0	98.0	78	122				
1,3-Dichloropropane	5.0	0.50	5.0	0.0	100.0	80	119				
2,2-Dichloropropane	4.9	0.50	5.0	0.0	98.0	60	139				
1,1-Dichloropropene	4.6	0.50	5.0	0.0	92.0	79	125				
cis-1,3-Dichloropropene	4.7	0.50	5.0	0.0	93.0	75	124				
trans-1,3-Dichloropropene	5.2	0.50	5.0	0.0	104.0	73	127				
Ethylbenzene	4.9	0.50	5.0	0.0	98.0	79	121				
Methyl tert-butyl ether (MTBE)	5.1	0.50	5.0	0.0	102.0	71	124				
Methyl ethyl ketone	50	10	50	0.0	100.0	56	143				
Methylene chloride	4.7	0.50	5.0	0.0	93.0	74	124				
Styrene	5.1	0.50	5.0	0.0	103.0	78	123				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 19 **SampType:** Sample Matrix Spike **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 20:31 **Prep Date:**
Lab ID: B21122168-001FMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	5.0	0.50	5.0	0.0	100.0	78	124				
1,1,2,2-Tetrachloroethane	5.0	0.50	5.0	0.0	100.0	71	121				
Tetrachloroethene	5.1	0.50	5.0	0.0	102.0	74	129				
Toluene	5.1	0.50	5.0	0.0	102.0	80	121				
1,1,1-Trichloroethane	4.9	0.50	5.0	0.0	98.0	74	131				
1,1,2-Trichloroethane	5.0	0.50	5.0	0.0	100.0	80	119				
Trichloroethene	4.8	0.50	5.0	0.0	96.0	79	123				
Trichlorofluoromethane	4.2	0.50	5.0	0.0	83.0	65	141				
1,2,3-Trichloropropane	5.1	0.50	5.0	0.0	101.0	73	125				
Vinyl chloride	4.7	0.50	5.0	0.0	93.0	58	137				
m+p-Xylenes	10	0.50	10	0.0	100.0	80	121				
o-Xylene	5.2	0.50	5.0	0.0	103.0	78	122				
Xylenes, Total	15	0.50	15	0.0	101.0	79	121				
Surr: 1,2-Dichloroethane-d4	10	0.50	10	0.0	101.0	81	118				
Surr: Dibromofluoromethane	10	0.50	10	0.0	103.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10	0.0	100.0	85	114				
Surr: Toluene-d8	11	0.50	10	0.0	107.0	89	112				

Associated Samples: **B21122105-001G, B21122105-002A**

Run ID: Run Order: VOA5975C.I_211230A: 20 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 20:58 **Prep Date:**
Lab ID: B21122168-001FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.0	0.50	5.0	0.0	99.0	79	120	4.8	2.4	20.0	
Bromobenzene	5.1	0.50	5.0	0.0	102.0	80	120	5.0	2.3	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 20 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 20:58 **Prep Date:**
Lab ID: B21122168-001FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Bromochloromethane	5.0	0.50	5.0	0.0	101.0	78	123	5.0	0.1	20.0	
Bromodichloromethane	5.1	0.50	5.0	0.0	101.0	79	125	4.9	2.8	20.0	
Bromoform	5.3	0.50	5.0	0.0	106.0	66	130	5.5	4.9	20.0	
Bromomethane	4.7	0.50	5.0	0.0	94.0	53	141	4.7	0.0	20.0	
Carbon tetrachloride	4.8	0.50	5.0	0.0	96.0	72	136	4.9	1.6	20.0	
Chlorobenzene	5.2	0.50	5.0	0.0	103.0	82	118	5.0	2.6	20.0	
Chlorodibromomethane	5.3	0.50	5.0	0.0	105.0	74	126	5.1	2.7	20.0	
Chloroethane	4.4	0.50	5.0	0.0	88.0	60	138	4.5	2.9	20.0	
Chloroform	4.6	0.50	5.0	0.0	92.0	79	124	4.6	0.7	20.0	
Chloromethane	4.3	0.50	5.0	0.0	86.0	50	139	4.4	2.1	20.0	
1,2-Dibromoethane	5.1	0.50	5.0	0.0	101.0	78	122	5.2	2.6	20.0	
2-Chlorotoluene	5.0	0.50	5.0	0.0	99.0	79	122	4.7	4.7	20.0	
Dibromomethane	4.9	0.50	5.0	0.0	99.0	79	123	5.0	1.6	20.0	
1,2-Dichlorobenzene	5.0	0.50	5.0	0.0	99.0	80	119	4.8	2.4	20.0	
4-Chlorotoluene	5.0	0.50	5.0	0.0	101.0	78	122	4.9	3.6	20.0	
1,3-Dichlorobenzene	5.0	0.50	5.0	0.0	101.0	80	119	4.9	1.8	20.0	
1,4-Dichlorobenzene	4.9	0.50	5.0	0.0	98.0	79	118	4.7	4.0	20.0	
Dichlorodifluoromethane	4.3	0.50	5.0	0.0	86.0	32	152	4.3	0.7	20.0	
1,1-Dichloroethane	5.1	0.50	5.0	0.0	102.0	77	125	5.0	1.6	20.0	
1,2-Dichloroethane	5.0	0.50	5.0	0.17	96.0	73	128	5.0	0.9	20.0	
1,1-Dichloroethene	5.0	0.50	5.0	0.0	100.0	71	131	5.0	0.5	20.0	
cis-1,2-Dichloroethene	4.9	0.50	5.0	0.0	98.0	78	123	4.8	1.9	20.0	
trans-1,2-Dichloroethene	4.9	0.50	5.0	0.0	99.0	75	124	5.0	1.9	20.0	
1,2-Dichloropropane	5.1	0.50	5.0	0.0	102.0	78	122	4.9	3.6	20.0	
1,3-Dichloropropane	4.9	0.50	5.0	0.0	97.0	80	119	5.0	2.9	20.0	
2,2-Dichloropropane	4.9	0.50	5.0	0.0	98.0	60	139	4.9	0.8	20.0	
1,1-Dichloropropene	4.6	0.50	5.0	0.0	93.0	79	125	4.6	1.4	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 20 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 20:58 **Prep Date:**
Lab ID: B21122168-001FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	4.8	0.50	5.0	0.0	96.0	75	124	4.7	3.1	20.0	
trans-1,3-Dichloropropene	5.2	0.50	5.0	0.0	105.0	73	127	5.2	0.5	20.0	
Ethylbenzene	5.0	0.50	5.0	0.0	100.0	79	121	4.9	1.8	20.0	
Methyl tert-butyl ether (MTBE)	5.0	0.50	5.0	0.0	100.0	71	124	5.1	2.1	20.0	
Methyl ethyl ketone	52	10	50	0.0	103.0	56	143	50	3.0	20.0	
Methylene chloride	4.6	0.50	5.0	0.0	91.0	74	124	4.7	2.1	20.0	
Styrene	5.3	0.50	5.0	0.0	105.0	78	123	5.1	2.7	20.0	
1,1,1,2-Tetrachloroethane	5.0	0.50	5.0	0.0	100.0	78	124	5.0	0.6	20.0	
1,1,2,2-Tetrachloroethane	5.3	0.50	5.0	0.0	105.0	71	121	5.0	4.7	20.0	
Tetrachloroethene	5.3	0.50	5.0	0.0	105.0	74	129	5.1	2.6	20.0	
Toluene	5.2	0.50	5.0	0.0	103.0	80	121	5.1	0.7	20.0	
1,1,1-Trichloroethane	5.0	0.50	5.0	0.0	100.0	74	131	4.9	2.0	20.0	
1,1,2-Trichloroethane	5.0	0.50	5.0	0.0	100.0	80	119	5.0	0.1	20.0	
Trichloroethene	4.8	0.50	5.0	0.0	97.0	79	123	4.8	0.8	20.0	
Trichlorofluoromethane	4.1	0.50	5.0	0.0	82.0	65	141	4.2	2.1	20.0	
1,2,3-Trichloropropane	5.2	0.50	5.0	0.0	105.0	73	125	5.1	3.4	20.0	
Vinyl chloride	4.6	0.50	5.0	0.0	91.0	58	137	4.7	2.3	20.0	
m+p-Xylenes	10	0.50	10	0.0	102.0	80	121	10	1.5	20.0	
o-Xylene	5.3	0.50	5.0	0.0	106.0	78	122	5.2	2.4	20.0	
Xylenes, Total	15	0.50	15	0.0	103.0	79	121	15	1.8	20.0	
Surr: 1,2-Dichloroethane-d4	10	0.50	10	0.0	100.0	81	118	0.0			
Surr: Dibromofluoromethane	10	0.50	10	0.0	100.0	80	119	0.0			
Surr: p-Bromofluorobenzene	10	0.50	10	0.0	103.0	85	114	0.0			
Surr: Toluene-d8	11	0.50	10	0.0	106.0	89	112	0.0			

Associated Samples: **B21122105-001G, B21122105-002A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 10:44 **Prep Date:**
Lab ID: CCV123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	4.6	0.50	5.0		91.0	80	120				
Bromobenzene	4.7	0.50	5.0		94.0	80	120				
Bromochloromethane	4.6	0.50	5.0		92.0	80	120				
Bromodichloromethane	4.7	0.50	5.0		94.0	80	120				
Bromoform	4.9	0.50	5.0		98.0	80	120				
Bromomethane	5.3	0.50	5.0		106.0	80	120				
Carbon tetrachloride	4.7	0.50	5.0		94.0	80	120				
Chlorobenzene	4.7	0.50	5.0		95.0	80	120				
Chlorodibromomethane	4.9	0.50	5.0		97.0	80	120				
Chloroethane	3.5	0.50	5.0		70.0	80	120				S
Chloroform	4.4	0.50	5.0		89.0	80	120				
Chloromethane	4.5	0.50	5.0		89.0	80	120				
1,2-Dibromoethane	4.6	0.50	5.0		92.0	80	120				
2-Chlorotoluene	4.6	0.50	5.0		92.0	80	120				
Dibromomethane	4.6	0.50	5.0		92.0	80	120				
1,2-Dichlorobenzene	4.6	0.50	5.0		91.0	80	120				
4-Chlorotoluene	4.8	0.50	5.0		95.0	80	120				
1,3-Dichlorobenzene	4.6	0.50	5.0		92.0	80	120				
1,4-Dichlorobenzene	4.5	0.50	5.0		91.0	80	120				
Dichlorodifluoromethane	4.2	0.50	5.0		84.0	80	120				
1,1-Dichloroethane	4.6	0.50	5.0		91.0	80	120				
1,2-Dichloroethane	4.5	0.50	5.0		89.0	80	120				
1,1-Dichloroethene	4.6	0.50	5.0		92.0	80	120				
cis-1,2-Dichloroethene	4.6	0.50	5.0		92.0	80	120				
trans-1,2-Dichloroethene	4.6	0.50	5.0		93.0	80	120				
1,2-Dichloropropane	4.9	0.50	5.0		97.0	80	120				
1,3-Dichloropropane	4.7	0.50	5.0		93.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 10:44 **Prep Date:**
Lab ID: CCV123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,2-Dichloropropane	4.9	0.50	5.0		99.0	80	120				
1,1-Dichloropropene	4.6	0.50	5.0		92.0	80	120				
cis-1,3-Dichloropropene	4.7	0.50	5.0		95.0	80	120				
trans-1,3-Dichloropropene	4.8	0.50	5.0		96.0	80	120				
Ethylbenzene	4.8	0.50	5.0		96.0	80	120				
Methyl tert-butyl ether (MTBE)	4.7	0.50	5.0		94.0	80	120				
Methyl ethyl ketone	49	10	50		99.0	80	120				
Methylene chloride	4.3	0.50	5.0		87.0	80	120				
Styrene	5.0	0.50	5.0		101.0	80	120				
1,1,1,2-Tetrachloroethane	4.8	0.50	5.0		96.0	80	120				
1,1,2,2-Tetrachloroethane	4.7	0.50	5.0		93.0	80	120				
Tetrachloroethene	4.9	0.50	5.0		98.0	80	120				
Toluene	4.8	0.50	5.0		96.0	80	120				
1,1,1-Trichloroethane	4.6	0.50	5.0		91.0	80	120				
1,1,2-Trichloroethane	4.7	0.50	5.0		94.0	80	120				
Trichloroethene	4.6	0.50	5.0		92.0	80	120				
Trichlorofluoromethane	4.1	0.50	5.0		81.0	80	120				
1,2,3-Trichloropropane	4.6	0.50	5.0		91.0	80	120				
Vinyl chloride	4.4	0.50	5.0		88.0	80	120				
m+p-Xylenes	9.9	0.50	10		99.0	80	120				
o-Xylene	5.0	0.50	5.0		100.0	80	120				
Xylenes, Total	15	0.50	15		99.0	80	120				
Surr: 1,2-Dichloroethane-d4	9.7	0.50	10		97.0	80	120				
Surr: Dibromofluoromethane	10	0.50	10		100.0	80	120				
Surr: p-Bromofluorobenzene	10	0.50	10		103.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 10:44 **Prep Date:**
Lab ID: CCV123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Toluene-d8	11	0.50	10		106.0	80	120				

Associated Samples: **B21122105-001G, B21122105-002A**

Run ID: Run Order: VOA5975C.I_211230A: 3 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 12:43 **Prep Date:**
Lab ID: CCVA123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Chloroethane	4.6	0.50	5.0		93.0	80	120				
Surr: 1,2-Dichloroethane-d4	10	0.50	10		100.0	80	120				
Surr: Dibromofluoromethane	10	0.50	10		104.0	80	120				
Surr: p-Bromofluorobenzene	11	0.50	10		105.0	80	120				
Surr: Toluene-d8	10	0.50	10		104.0	80	120				

Associated Samples: **B21122105-001G, B21122105-002A**

Run ID: Run Order: VOA5975C.I_211230A: 4 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 13:39 **Prep Date:**
Lab ID: CCVB123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Chloroethane	4.4	0.50	5.0		87.0	80	120				
Surr: 1,2-Dichloroethane-d4	10	0.50	10		101.0	80	120				
Surr: Dibromofluoromethane	10	0.50	10		105.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 4 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 13:39 **Prep Date:**
Lab ID: CCVB123021_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: p-Bromofluorobenzene	10	0.50	10		102.0	80	120				
Surr: Toluene-d8	10	0.50	10		100.0	80	120				

Associated Samples: **B21122105-001G, B21122105-002A**

Run ID: Run Order: VOA5975C.I_211230A: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 21:53 **Prep Date:**
Lab ID: CCV_CLOSING123021 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.0	0.50	5.0		99.0	50	150				
Bromobenzene	5.1	0.50	5.0		102.0	50	150				
Bromochloromethane	5.2	0.50	5.0		104.0	50	150				
Bromodichloromethane	4.9	0.50	5.0		98.0	50	150				
Bromoform	5.1	0.50	5.0		102.0	50	150				
Bromomethane	5.5	0.50	5.0		109.0	50	150				
Carbon tetrachloride	5.0	0.50	5.0		100.0	50	150				
Chlorobenzene	5.1	0.50	5.0		102.0	50	150				
Chlorodibromomethane	5.1	0.50	5.0		103.0	50	150				
Chloroethane	4.5	0.50	5.0		90.0	50	150				
Chloroform	4.8	0.50	5.0		95.0	50	150				
Chloromethane	4.7	0.50	5.0		94.0	50	150				
1,2-Dibromoethane	5.1	0.50	5.0		102.0	50	150				
2-Chlorotoluene	5.0	0.50	5.0		101.0	50	150				
Dibromomethane	5.0	0.50	5.0		101.0	50	150				
1,2-Dichlorobenzene	4.9	0.50	5.0		98.0	50	150				
4-Chlorotoluene	5.1	0.50	5.0		101.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 21:53 **Prep Date:**
Lab ID: CCV_CLOSING123021 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	4.9	0.50	5.0		98.0	50	150				
1,4-Dichlorobenzene	4.9	0.50	5.0		98.0	50	150				
Dichlorodifluoromethane	4.5	0.50	5.0		89.0	50	150				
1,1-Dichloroethane	5.1	0.50	5.0		102.0	50	150				
1,2-Dichloroethane	4.8	0.50	5.0		96.0	50	150				
1,1-Dichloroethene	4.9	0.50	5.0		98.0	50	150				
cis-1,2-Dichloroethene	4.9	0.50	5.0		98.0	50	150				
trans-1,2-Dichloroethene	5.0	0.50	5.0		99.0	50	150				
1,2-Dichloropropane	5.0	0.50	5.0		100.0	50	150				
1,3-Dichloropropane	5.0	0.50	5.0		100.0	50	150				
2,2-Dichloropropane	4.9	0.50	5.0		98.0	50	150				
1,1-Dichloropropene	4.9	0.50	5.0		98.0	50	150				
cis-1,3-Dichloropropene	4.9	0.50	5.0		98.0	50	150				
trans-1,3-Dichloropropene	5.1	0.50	5.0		103.0	50	150				
Ethylbenzene	5.1	0.50	5.0		102.0	50	150				
Methyl tert-butyl ether (MTBE)	4.9	0.50	5.0		97.0	50	150				
Methyl ethyl ketone	50	10	50		101.0	50	150				
Methylene chloride	4.7	0.50	5.0		95.0	50	150				
Styrene	5.4	0.50	5.0		108.0	50	150				
1,1,1,2-Tetrachloroethane	5.1	0.50	5.0		102.0	50	150				
1,1,2,2-Tetrachloroethane	4.9	0.50	5.0		99.0	50	150				
Tetrachloroethene	5.4	0.50	5.0		107.0	50	150				
Toluene	5.2	0.50	5.0		104.0	50	150				
1,1,1-Trichloroethane	5.0	0.50	5.0		101.0	50	150				
1,1,2-Trichloroethane	5.0	0.50	5.0		100.0	50	150				
Trichloroethene	5.0	0.50	5.0		100.0	50	150				
Trichlorofluoromethane	4.3	0.50	5.0		86.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: VOA5975C.I_211230A: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372936
Method: SW8260B **Analysis Date:** 12/30/2021 21:53 **Prep Date:**
Lab ID: CCV_CLOSING123021 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	4.8	0.50	5.0		96.0	50	150				
Vinyl chloride	4.6	0.50	5.0		92.0	50	150				
m+p-Xylenes	11	0.50	10		106.0	50	150				
o-Xylene	5.4	0.50	5.0		108.0	50	150				
Xylenes, Total	16	0.50	15		107.0	50	150				
Surr: 1,2-Dichloroethane-d4	9.6	0.50	10		96.0	50	150				
Surr: Dibromofluoromethane	10	0.50	10		102.0	50	150				
Surr: p-Bromofluorobenzene	10	0.50	10		101.0	50	150				
Surr: Toluene-d8	10	0.50	10		105.0	50	150				

Associated Samples: **B21122105-001G, B21122105-002A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: GECD.I_211230A: 10 **SampType:** Method Blank **Batch ID:** 162607
Method: SW8011 **Analysis Date:** 12/30/2021 16:58 **Prep Date:** 12/30/2021 09:33
Lab ID: MB-162607 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.0050									
Surr: 1,1,1,2-Tetrachloroethane	0.081	0.020	0.10		81.0	70	130				

Associated Samples: **B21122105-001H, B21122105-004A**

Run ID: Run Order: GECD.I_211230A: 11 **SampType:** Laboratory Control Sample **Batch ID:** 162607
Method: SW8011 **Analysis Date:** 12/30/2021 17:18 **Prep Date:** 12/30/2021 09:33
Lab ID: LCS-162607 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.23	0.010	0.25		90.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.080	0.020	0.10		80.0	70	130				

Associated Samples: **B21122105-001H, B21122105-004A**

Run ID: Run Order: GECD.I_211230A: 12 **SampType:** Laboratory Control Sample **Batch ID:** 162607
Method: SW8011 **Analysis Date:** 12/30/2021 17:38 **Prep Date:** 12/30/2021 09:33
Lab ID: LCS1-162607 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.097	0.010	0.10		97.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.080	0.020	0.10		80.0	70	130				

Associated Samples: **B21122105-001H, B21122105-004A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: GECD.I_211230A: 22 **SampType:** Sample Matrix Spike **Batch ID:** 162607
Method: SW8011 **Analysis Date:** 12/30/2021 21:18 **Prep Date:** 12/30/2021 09:34
Lab ID: B21122088-001HMS **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.22	0.010	0.24	0.0	90.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.082	0.020	0.097	0.0	85.0	70	130				

Associated Samples: **B21122105-001H, B21122105-004A**

Run ID: Run Order: GECD.I_211230A: 23 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162607
Method: SW8011 **Analysis Date:** 12/30/2021 21:38 **Prep Date:** 12/30/2021 09:34
Lab ID: B21122088-001HMSD **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.25	0.010	0.24	0.0	106.0	60	140	0.22	15.0	20.0	
Surr: 1,1,1,2-Tetrachloroethane	0.098	0.020	0.096	0.0	102.0	70	130	0.0			

Associated Samples: **B21122105-001H, B21122105-004A**

Run ID: Run Order: GECD.I_211230A: 9 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 162607
Method: SW8011 **Analysis Date:** 12/30/2021 16:39 **Prep Date:** 12/30/2021 09:34
Lab ID: CK3-162607 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.10	0.010	0.10		101.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.092	0.020	0.10		92.0	80	120				

Associated Samples: **B21122105-001H, B21122105-004A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: GECD.I_211230A: 24 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 162607
Method: SW8011 **Analysis Date:** 12/30/2021 22:18 **Prep Date:** 12/30/2021 09:34
Lab ID: CK5-162607 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.41	0.010	0.40		102.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.43	0.020	0.40		108.0	80	120				

Associated Samples: **B21122105-001H, B21122105-004A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: PE 1_211230A: 4 **SampType:** Method Blank **Batch ID:** R372587
Method: SW8015C **Analysis Date:** 12/30/2021 10:01 **Prep Date:**
Lab ID: MBLK_1230PE105r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	ND	10									
Total Purgeable Hydrocarbons	ND	10									
Surr: Trifluorotoluene	20	1.0	25		78.0	70	130				

Associated Samples: **B21122105-001F, B21122105-003A**

Run ID: Run Order: PE 1_211230A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R372587
Method: SW8015C **Analysis Date:** 12/30/2021 09:27 **Prep Date:**
Lab ID: LCS_1230PE104r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	151	20	170		89.0	78	122				
Total Purgeable Hydrocarbons	180	20	200		90.0	70	130				
Surr: Trifluorotoluene	22	1.0	25		89.0	70	130				

Associated Samples: **B21122105-001F, B21122105-003A**

Run ID: Run Order: PE 1_211230A: 9 **SampType:** Sample Matrix Spike **Batch ID:** R372587
Method: SW8015C **Analysis Date:** 12/30/2021 14:01 **Prep Date:**
Lab ID: B21122105-001FMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	152	20	170	0.0	90.0	78	122				
Total Purgeable Hydrocarbons	183	20	200	0.0	91.0	70	130				
Surr: Trifluorotoluene	22	1.0	25	0.0	86.0	70	130				

Associated Samples: **B21122105-001F, B21122105-003A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: PE 1_211230A: 10 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372587
Method: SW8015C **Analysis Date:** 12/30/2021 14:35 **Prep Date:**
Lab ID: B21122105-001FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	155	20	170	0.0	91.0	78	122	152	2.0	20.0	
Total Purgeable Hydrocarbons	186	20	200	0.0	93.0	70	130	183	1.6	20.0	
Surr: Trifluorotoluene	22	1.0	25	0.0	88.0	70	130	0.0			

Associated Samples: **B21122105-001F, B21122105-003A**

Run ID: Run Order: GCFID-HP5-B_211230A: 5 **SampType:** Method Blank **Batch ID:** 162579
Method: SW8015C **Analysis Date:** 12/31/2021 00:18 **Prep Date:** 12/29/2021 14:18
Lab ID: MB-162579 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	ND	0.15									
Oil Range Hydrocarbons (C24 to C40)	ND	0.15									
Total Extractable Hydrocarbons	ND	0.15									
Surr: o-Terphenyl	0.20	0.0020	0.20		98.0	56	125				
Surr: n-Triacontane	0.11	0.0020	0.10		114.0	50	150				

Associated Samples: **B21122105-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: GCFID-HP5-B_211230A: 3 **SampType:** Laboratory Control Sample **Batch ID:** 162579
Method: SW8015C **Analysis Date:** 12/30/2021 22:52 **Prep Date:** 12/29/2021 14:18
Lab ID: LCS-162579 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	15	0.30	15		99.0	36	132				
Total Extractable Hydrocarbons	16	0.30	15		107.0	60	132				
Surr: o-Terphenyl	0.20	0.0020	0.20		101.0	56	125				

Associated Samples: **B21122105-001D**

Run ID: Run Order: GCFID-HP5-B_211230A: 4 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162579
Method: SW8015C **Analysis Date:** 12/30/2021 23:35 **Prep Date:** 12/29/2021 14:18
Lab ID: LCSD-162579 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	14	0.30	15		96.0	36	132	15	3.4	20.0	
Total Extractable Hydrocarbons	15	0.30	15		103.0	60	132	16	3.5	20.0	
Surr: o-Terphenyl	0.20	0.0020	0.20		100.0	56	125	0.0			

Associated Samples: **B21122105-001D**

Run ID: Run Order: GCFID-HP5-B_211230A: 12 **SampType:** Laboratory Control Sample **Batch ID:** 162579
Method: SW8015C **Analysis Date:** 12/31/2021 10:20 **Prep Date:** 12/29/2021 14:19
Lab ID: LCS-162579-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.0	0.30	5.0		100.0	41	113				
Surr: n-Triacontane	0.11	0.0020	0.10		114.0	50	150				

Associated Samples: **B21122105-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: GCFID-HP5-B_211230A: 13 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162579
Method: SW8015C **Analysis Date:** 12/31/2021 11:46 **Prep Date:** 12/29/2021 14:18
Lab ID: LCSD-162579-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.8	0.30	5.0		96.0	41	113	5.0	3.9	20.0	
Surr: n-Triacontane	0.11	0.0020	0.10		107.0	50	150	0.0			

Associated Samples: **B21122105-001D**

Run ID: Run Order: GCFID-HP5-B_211230A: 7 **SampType:** Sample Matrix Spike **Batch ID:** 162579
Method: SW8015C **Analysis Date:** 12/31/2021 01:44 **Prep Date:** 12/29/2021 14:19
Lab ID: B21122077-001DMS **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	14	0.30	14	0.0	97.0	36	132				
Total Extractable Hydrocarbons	15	0.30	14	0.0	104.0	60	132				
Surr: o-Terphenyl	0.19	0.0020	0.19	0.0	100.0	56	125				

Associated Samples: **B21122105-001D**

Run ID: Run Order: GCFID-HP5-B_211230A: 9 **SampType:** Sample Matrix Spike **Batch ID:** 162579
Method: SW8015C **Analysis Date:** 12/31/2021 06:45 **Prep Date:** 12/29/2021 14:19
Lab ID: B21122088-001DMS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	6.9	0.32	5.2	1.6	100.0	41	113				
Surr: n-Triacontane	0.11	0.0021	0.10	0.0	107.0	50	150				

Associated Samples: **B21122105-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: PE 1_211230A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372587
Method: SW8015C **Analysis Date:** 12/30/2021 08:53 **Prep Date:**
Lab ID: CCV_1230PE103r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	155	20	168		92.0	80	120				
Total Purgeable Hydrocarbons	185	20	200		92.0	80	120				
Surr: Trifluorotoluene	22	1.0	25		89.0	80	120				

Associated Samples: **B21122105-001F, B21122105-003A**

Run ID: Run Order: PE 1_211230A: 12 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372587
Method: SW8015C **Analysis Date:** 12/30/2021 16:18 **Prep Date:**
Lab ID: CCV_1230PE116r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	152	20	168		91.0	80	120				
Total Purgeable Hydrocarbons	181	20	200		90.0	80	120				
Surr: Trifluorotoluene	22	1.0	25		89.0	80	120				

Associated Samples: **B21122105-001F, B21122105-003A**

Run ID: Run Order: GCFID-HP5-B_211230A: 16 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372599
Method: SW8015C **Analysis Date:** 01/01/2022 12:38 **Prep Date:**
Lab ID: CCV_1230HP538r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.6	0.30	5.0		92.0	80	120				
Surr: n-Triacontane	0.21	0.0020	0.20		103.0	80	120				

Associated Samples: **B21122105-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: GCFID-HP5-B_211230A: 17 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372599
Method: SW8015C **Analysis Date:** 01/01/2022 13:21 **Prep Date:**
Lab ID: CCV_1230HP539r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	14	0.30	15		93.0	80	120				
Total Extractable Hydrocarbons	14	0.30	15		96.0	80	120				
Surr: o-Terphenyl	0.18	0.0020	0.20		92.0	80	120				

Associated Samples: **B21122105-001D**

Run ID: Run Order: GCFID-HP5-B_211230A: 20 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372599
Method: SW8015C **Analysis Date:** 01/01/2022 16:55 **Prep Date:**
Lab ID: CCV_1230HP544r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.5	0.30	5.0		90.0	80	120				
Surr: n-Triacontane	0.20	0.0020	0.20		101.0	80	120				

Associated Samples: **B21122105-001D**

Run ID: Run Order: GCFID-HP5-B_211230A: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372599
Method: SW8015C **Analysis Date:** 01/01/2022 18:22 **Prep Date:**
Lab ID: CCV_1230HP546r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	14	0.30	15		93.0	80	120				
Total Extractable Hydrocarbons	14	0.30	15		96.0	80	120				
Surr: o-Terphenyl	0.18	0.0020	0.20		92.0	80	120				

Associated Samples: **B21122105-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: FID-HEADSPACE_220103A: 4 **SampType:** Method Blank **Batch ID:** R372625
Method: SW8015M **Analysis Date:** 01/03/2022 10:23 **Prep Date:**
Lab ID: MBLK **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	ND	0.0010			0.0						

Associated Samples: **B21122105-001I, B21122105-005A**

Run ID: Run Order: FID-HEADSPACE_220103A: 2 **SampType:** Laboratory Control Sample **Batch ID:** R372625
Method: SW8015M **Analysis Date:** 01/03/2022 09:09 **Prep Date:**
Lab ID: LCS **Units:** ppm **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	97	2.0	100		97.0	85	115				

Associated Samples: **B21122105-001I, B21122105-005A**

Run ID: Run Order: FID-HEADSPACE_220103A: 3 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** R372625
Method: SW8015M **Analysis Date:** 01/03/2022 09:14 **Prep Date:**
Lab ID: LCSD **Units:** ppm **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	97	2.0	100		97.0	85	115	97	0.4	20.0	

Associated Samples: **B21122105-001I, B21122105-005A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: FID-HEADSPACE_220103A: 10 **SampType:** Sample Duplicate **Batch ID:** R372625
Method: SW8015M **Analysis Date:** 01/03/2022 11:06 **Prep Date:**
Lab ID: B21122090-001IDUP **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	0.0028	0.0020			0.0			0.0027	4.3	20.0	

Associated Samples: **B21122105-001I, B21122105-005A**

Run ID: Run Order: FID-HEADSPACE_220103A: 15 **SampType:** Sample Duplicate **Batch ID:** R372625
Method: SW8015M **Analysis Date:** 01/03/2022 11:47 **Prep Date:**
Lab ID: B21122168-001IDUP **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	ND	0.0020			0.0			0.0		20.0	

Associated Samples: **B21122105-001I, B21122105-005A**

Run ID: Run Order: FID-HEADSPACE_220103A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372625
Method: SW8015M **Analysis Date:** 01/03/2022 09:04 **Prep Date:**
Lab ID: CCV **Units:** ppm **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	97	2.0	100		97.0	85	115				

Associated Samples: **B21122105-001I, B21122105-005A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: FID-HEADSPACE_220103A: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372625
Method: SW8015M **Analysis Date:** 01/03/2022 13:40 **Prep Date:**
Lab ID: CCV **Units:** ppm **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	97	2.0	100		97.0	85	115				

Associated Samples: **B21122105-001I, B21122105-005A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 12 **SampType:** Method Blank **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 18:26 **Prep Date:** 12/29/2021 13:59
Lab ID: MB-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
1-Methylnaphthalene	ND	5.0									
2,4,5-Trichlorophenol	ND	5.0									
2,4,6-Trichlorophenol	ND	5.0									
2,4-Dichlorophenol	ND	5.0									
2,4-Dimethylphenol	ND	5.0									
2,4-Dinitrophenol	ND	10									
2,4-Dinitrotoluene	ND	5.0									
2,6-Dinitrotoluene	ND	5.0									
2-Chloronaphthalene	ND	5.0									
2-Chlorophenol	ND	5.0									
2-Methylnaphthalene	ND	5.0									
2-Nitrophenol	ND	5.0									
3,3´-Dichlorobenzidine	ND	10									
4,6-Dinitro-2-methylphenol	ND	10									
4-Bromophenyl phenyl ether	ND	5.0									
4-Chloro-3-methylphenol	ND	5.0									
4-Chlorophenol	ND	5.0									
4-Chlorophenyl phenyl ether	ND	5.0									
4-Nitrophenol	ND	10									
Acenaphthene	ND	5.0									
Acenaphthylene	ND	5.0									
Anthracene	ND	5.0									
Azobenzene	ND	5.0									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 12 **SampType:** Method Blank **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 18:26 **Prep Date:** 12/29/2021 13:59
Lab ID: MB-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzidine	ND	10									
Benzo(a)anthracene	ND	5.0									
Benzo(a)pyrene	ND	5.0									
Benzo(b)fluoranthene	ND	5.0									
Benzo(g,h,i)perylene	ND	5.0									
Benzo(k)fluoranthene	ND	5.0									
bis(-2-chloroethoxy)Methane	ND	5.0									
bis(-2-chloroethyl)Ether	ND	5.0									
bis(2-chloroisopropyl)Ether	ND	5.0									
bis(2-ethylhexyl)Phthalate	ND	5.0									
Butylbenzylphthalate	ND	5.0									
Chrysene	ND	5.0									
Dibenzo(a,h)anthracene	ND	5.0									
Diethyl phthalate	ND	5.0									
Dimethyl phthalate	ND	5.0									
Di-n-butyl phthalate	ND	5.0									
Di-n-octyl phthalate	ND	5.0									
Fluoranthene	ND	5.0									
Fluorene	ND	5.0									
Hexachlorobenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Hexachlorocyclopentadiene	ND	5.0									
Hexachloroethane	ND	5.0									
Indeno(1,2,3-cd)pyrene	ND	5.0									
Isophorone	ND	5.0									
m+p-Cresols	ND	5.0									
Naphthalene	ND	5.0									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 12 **SampType:** Method Blank **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 18:26 **Prep Date:** 12/29/2021 13:59
Lab ID: MB-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Nitrobenzene	ND	5.0									
n-Nitrosodimethylamine	ND	5.0									
n-Nitroso-di-n-propylamine	ND	5.0									
n-Nitrosodiphenylamine	ND	10									
o-Cresol	ND	5.0									
Pentachlorophenol	ND	10									
Phenanthrene	ND	5.0									
Phenol	ND	5.0									
Pyrene	ND	5.0									
Pyridine	ND	5.0									
Surr: 2,4,6-Tribromophenol	157	5.0	200		78.0	43	140				
Surr: 2-Fluorobiphenyl	48	5.0	100		48.0	44	119				
Surr: 2-Fluorophenol	99	5.0	200		50.0	19	119				
Surr: Nitrobenzene-d5	68	5.0	100		68.0	44	120				
Surr: Phenol-d5	84	5.0	200		42.0	10	65				
Surr: Terphenyl-d14	97	5.0	100		97.0	50	134				

Associated Samples: **B21122105-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5975.I_220110A: 4 **SampType:** Method Blank **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/10/2022 12:48 **Prep Date:** 12/29/2021 13:59
Lab ID: MB-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	0.10									
2-Methylnaphthalene	ND	0.10									
Naphthalene	ND	0.10									

Associated Samples: **B21122105-001C**

Run ID: Run Order: SV5975.I_220110A: 5 **SampType:** Method Blank **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/10/2022 13:20 **Prep Date:** 12/29/2021 13:59
Lab ID: MB-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	43	2.0	100		43.0	53	106				S
Surr: Nitrobenzene-d5	59	2.0	100		59.0	55	111				
Surr: Terphenyl-d14	96	2.0	100		96.0	58	132				

Associated Samples: **B21122105-001C**

Run ID: Run Order: SV5973N.I_220107A: 13 **SampType:** Laboratory Control Sample **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 18:59 **Prep Date:** 12/29/2021 13:59
Lab ID: LCS-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	70	10	100		70.0	29	116				
1,2-Dichlorobenzene	64	10	100		64.0	32	111				
1,3-Dichlorobenzene	61	10	100		61.0	28	110				
1,4-Dichlorobenzene	61	10	100		61.0	29	112				
1-Methylnaphthalene	83	10	100		83.0	41	119				
2,4,5-Trichlorophenol	92	10	100		92.0	53	123				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 13 **SampType:** Laboratory Control Sample **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 18:59 **Prep Date:** 12/29/2021 13:59
Lab ID: LCS-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4,6-Trichlorophenol	92	10	100		92.0	50	125				
2,4-Dichlorophenol	89	10	100		89.0	47	121				
2,4-Dimethylphenol	85	10	100		85.0	31	124				
2,4-Dinitrophenol	84	10	100		84.0	23	142				
2,4-Dinitrotoluene	97	10	100		97.0	57	128				
2,6-Dinitrotoluene	102	10	100		102.0	50	118				
2-Chloronaphthalene	90	10	100		90.0	40	116				
2-Chlorophenol	83	10	100		83.0	38	117				
2-Methylnaphthalene	92	10	100		92.0	40	121				
2-Nitrophenol	92	10	100		92.0	47	123				
3,3´-Dichlorobenzidine	83	10	100		83.0	27	129				
4,6-Dinitro-2-methylphenol	89	10	100		89.0	44	137				
4-Bromophenyl phenyl ether	101	10	100		101.0	55	124				
4-Chloro-3-methylphenol	97	10	100		97.0	52	119				
4-Chlorophenol	83	10	100		83.0	41	81				S
4-Chlorophenyl phenyl ether	98	10	100		98.0	53	121				
4-Nitrophenol	48	10	100		48.0	15	36				S
Acenaphthene	98	10	100		98.0	47	122				
Acenaphthylene	86	10	100		86.0	41	130				
Anthracene	100	10	100		100.0	57	123				
Azobenzene	91	10	100		91.0	61	116				
Benzidine	14	10	100		14.0	10	100				
Benzo(a)anthracene	107	10	100		107.0	58	125				
Benzo(a)pyrene	97	10	100		97.0	54	128				
Benzo(b)fluoranthene	107	10	100		107.0	53	131				
Benzo(g,h,i)perylene	105	10	100		105.0	50	134				
Benzo(k)fluoranthene	101	10	100		101.0	57	129				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 13 **SampType:** Laboratory Control Sample **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 18:59 **Prep Date:** 12/29/2021 13:59
Lab ID: LCS-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
bis(-2-chloroethoxy)Methane	92	10	100		92.0	48	120				
bis(-2-chloroethyl)Ether	89	10	100		89.0	43	118				
bis(2-chloroisopropyl)Ether	69	10	100		69.0	37	130				
bis(2-ethylhexyl)Phthalate	105	10	100		105.0	55	135				
Butylbenzylphthalate	108	10	100		108.0	53	134				
Chrysene	107	10	100		107.0	59	123				
Dibenzo(a,h)anthracene	102	10	100		102.0	51	134				
Diethyl phthalate	107	10	100		107.0	56	125				
Dimethyl phthalate	100	10	100		100.0	45	127				
Di-n-butyl phthalate	104	10	100		104.0	59	127				
Di-n-octyl phthalate	104	10	100		104.0	51	140				
Fluoranthene	102	10	100		102.0	57	128				
Fluorene	91	10	100		91.0	52	124				
Hexachlorobenzene	89	10	100		89.0	53	125				
Hexachlorobutadiene	63	10	100		63.0	22	124				
Hexachlorocyclopentadiene	69	10	100		69.0	39	91				
Hexachloroethane	58	10	100		58.0	21	115				
Indeno(1,2,3-cd)pyrene	101	10	100		101.0	52	134				
Isophorone	94	10	100		94.0	42	124				
m+p-Cresols	84	10	100		84.0	29	110				
Naphthalene	82	10	100		82.0	40	121				
Nitrobenzene	93	10	100		93.0	45	121				
n-Nitrosodimethylamine	49	10	100		49.0	20	45				S
n-Nitroso-di-n-propylamine	104	10	100		104.0	49	119				
n-Nitrosodiphenylamine	102	10	100		102.0	51	123				
o-Cresol	84	10	100		84.0	30	117				
Pentachlorophenol	99	10	100		99.0	35	138				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 13 **SampType:** Laboratory Control Sample **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 18:59 **Prep Date:** 12/29/2021 13:59
Lab ID: LCS-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Phenanthrene	96	10	100		96.0	59	120				
Phenol	56	10	100		56.0	37	75				
Pyrene	96	10	100		96.0	57	126				
Pyridine	35	10	100		35.0	16	45				
Surr: 2,4,6-Tribromophenol	195	10	200		97.0	43	140				
Surr: 2-Fluorobiphenyl	76	10	100		76.0	44	119				
Surr: 2-Fluorophenol	119	10	200		60.0	19	119				
Surr: Nitrobenzene-d5	80	10	100		80.0	44	120				
Surr: Phenol-d5	108	10	200		54.0	10	65				
Surr: Terphenyl-d14	103	10	100		103.0	50	134				

Associated Samples: **B21122105-001C**

Run ID: Run Order: SV5973N.I_220107A: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 19:31 **Prep Date:** 12/29/2021 13:59
Lab ID: LCSD-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	74	10	100		74.0	29	116	70	5.9	20.0	
1,2-Dichlorobenzene	75	10	100		75.0	32	111	64	15.0	20.0	
1,3-Dichlorobenzene	71	10	100		71.0	28	110	61	15.0	20.0	
1,4-Dichlorobenzene	71	10	100		71.0	29	112	61	16.0	20.0	
1-Methylnaphthalene	87	10	100		87.0	41	119	83	5.6	20.0	
2,4,5-Trichlorophenol	110	10	100		110.0	53	123	92	17.0	20.0	
2,4,6-Trichlorophenol	98	10	100		98.0	50	125	92	6.1	20.0	
2,4-Dichlorophenol	96	10	100		96.0	47	121	89	8.1	20.0	
2,4-Dimethylphenol	88	10	100		88.0	31	124	85	2.6	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 19:31 **Prep Date:** 12/29/2021 13:59
Lab ID: LCSD-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4-Dinitrophenol	90	10	100		90.0	23	142	84	7.3	20.0	
2,4-Dinitrotoluene	108	10	100		108.0	57	128	97	10.0	20.0	
2,6-Dinitrotoluene	119	10	100		119.0	50	118	102	16.0	20.0	S
2-Chloronaphthalene	105	10	100		105.0	40	116	90	16.0	20.0	
2-Chlorophenol	93	10	100		93.0	38	117	83	11.0	20.0	
2-Methylnaphthalene	97	10	100		97.0	40	121	92	5.8	20.0	
2-Nitrophenol	102	10	100		102.0	47	123	92	10.0	20.0	
3,3´-Dichlorobenzidine	85	10	100		85.0	27	129	83	2.8	20.0	
4,6-Dinitro-2-methylphenol	92	10	100		92.0	44	137	89	4.4	20.0	
4-Bromophenyl phenyl ether	107	10	100		107.0	55	124	101	5.6	20.0	
4-Chloro-3-methylphenol	99	10	100		99.0	52	119	97	2.0	20.0	
4-Chlorophenol	89	10	100		89.0	41	81	83	7.9	20.0	S
4-Chlorophenyl phenyl ether	108	10	100		108.0	53	121	98	9.9	20.0	
4-Nitrophenol	52	10	100		52.0	15	36	48	6.6	20.0	S
Acenaphthene	110	10	100		110.0	47	122	98	12.0	20.0	
Acenaphthylene	98	10	100		98.0	41	130	86	13.0	20.0	
Anthracene	108	10	100		108.0	57	123	100	7.3	20.0	
Azobenzene	100	10	100		100.0	61	116	91	9.3	20.0	
Benzidine	20	10	100		20.0	10	100	14	37.0	20.0	R
Benzo(a)anthracene	112	10	100		112.0	58	125	107	5.1	20.0	
Benzo(a)pyrene	102	10	100		102.0	54	128	97	5.1	20.0	
Benzo(b)fluoranthene	108	10	100		108.0	53	131	107	1.0	20.0	
Benzo(g,h,i)perylene	106	10	100		106.0	50	134	105	0.6	20.0	
Benzo(k)fluoranthene	102	10	100		102.0	57	129	101	0.6	20.0	
bis(-2-chloroethoxy)Methane	96	10	100		96.0	48	120	92	3.6	20.0	
bis(-2-chloroethyl)Ether	96	10	100		96.0	43	118	89	7.1	20.0	
bis(2-chloroisopropyl)Ether	75	10	100		75.0	37	130	69	8.7	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 19:31 **Prep Date:** 12/29/2021 13:59
Lab ID: LCSD-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
bis(2-ethylhexyl)Phthalate	114	10	100		114.0	55	135	105	8.2	20.0	
Butylbenzylphthalate	116	10	100		116.0	53	134	108	6.4	20.0	
Chrysene	111	10	100		111.0	59	123	107	4.1	20.0	
Dibenzo(a,h)anthracene	105	10	100		105.0	51	134	102	3.2	20.0	
Diethyl phthalate	118	10	100		118.0	56	125	107	9.7	20.0	
Dimethyl phthalate	111	10	100		111.0	45	127	100	10.0	20.0	
Di-n-butyl phthalate	110	10	100		110.0	59	127	104	5.5	20.0	
Di-n-octyl phthalate	112	10	100		112.0	51	140	104	6.6	20.0	
Fluoranthene	104	10	100		104.0	57	128	102	2.8	20.0	
Fluorene	100	10	100		100.0	52	124	91	9.1	20.0	
Hexachlorobenzene	96	10	100		96.0	53	125	89	7.5	20.0	
Hexachlorobutadiene	73	10	100		73.0	22	124	63	15.0	20.0	
Hexachlorocyclopentadiene	85	10	100		85.0	39	91	69	21.0	20.0	R
Hexachloroethane	68	10	100		68.0	21	115	58	15.0	20.0	
Indeno(1,2,3-cd)pyrene	103	10	100		103.0	52	134	101	2.4	20.0	
Isophorone	97	10	100		97.0	42	124	94	2.7	20.0	
m+p-Cresols	92	10	100		92.0	29	110	84	8.5	20.0	
Naphthalene	84	10	100		84.0	40	121	82	2.3	20.0	
Nitrobenzene	101	10	100		101.0	45	121	93	9.0	20.0	
n-Nitrosodimethylamine	46	10	100		46.0	20	45	49	6.5	20.0	S
n-Nitroso-di-n-propylamine	116	10	100		116.0	49	119	104	11.0	20.0	
n-Nitrosodiphenylamine	111	10	100		111.0	51	123	102	8.8	20.0	
o-Cresol	91	10	100		91.0	30	117	84	7.6	20.0	
Pentachlorophenol	112	10	100		112.0	35	138	99	12.0	20.0	
Phenanthrene	103	10	100		103.0	59	120	96	7.0	20.0	
Phenol	68	10	100		68.0	37	75	56	19.0	20.0	
Pyrene	102	10	100		102.0	57	126	96	5.5	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 19:31 **Prep Date:** 12/29/2021 13:59
Lab ID: LCSD-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Pyridine	40	10	100		40.0	16	45	35	14.0	20.0	
Surr: 2,4,6-Tribromophenol	209	10	200		105.0	43	140	0.0	0.0		
Surr: 2-Fluorobiphenyl	87	10	100		87.0	44	119	0.0	0.0		
Surr: 2-Fluorophenol	130	10	200		65.0	19	119	0.0	0.0		
Surr: Nitrobenzene-d5	88	10	100		88.0	44	120	0.0	0.0		
Surr: Phenol-d5	120	10	200		60.0	10	65	0.0	0.0		
Surr: Terphenyl-d14	104	10	100		104.0	50	134	0.0	0.0		

Associated Samples: **B21122105-001C**

- Insufficient sample was submitted to perform a Matrix Spike/Duplicate, so a Laboratory Control Sample Duplicate is included in the reporting package to assess precision.

Run ID: Run Order: SV5975.I_220110A: 6 **SampType:** Laboratory Control Sample **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/10/2022 13:53 **Prep Date:** 12/29/2021 13:59
Lab ID: LLCS-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.1	0.10	5.0		63.0	41	115				
2-Methylnaphthalene	3.0	0.10	5.0		60.0	39	114				
Naphthalene	2.8	0.10	5.0		57.0	43	114				
Surr: 2-Fluorobiphenyl	3.8	0.10	5.0		75.0	53	106				
Surr: Nitrobenzene-d5	3.5	0.10	5.0		69.0	55	111				
Surr: Terphenyl-d14	5.0	0.10	5.0		100.0	58	132				

Associated Samples: **B21122105-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5975.I_220110A: 7 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/10/2022 14:25 **Prep Date:** 12/29/2021 13:59
Lab ID: LLCSD-162577 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.9	0.10	5.0		58.0	41	115	3.1	7.1	40.0	
2-Methylnaphthalene	2.8	0.10	5.0		57.0	39	114	3.0	5.6	40.0	
Naphthalene	2.4	0.10	5.0		49.0	43	114	2.8	16.0	40.0	
Surr: 2-Fluorobiphenyl	3.7	0.10	5.0		75.0	53	106	0.0	0.0		
Surr: Nitrobenzene-d5	3.8	0.10	5.0		76.0	55	111	0.0	0.0		
Surr: Terphenyl-d14	5.3	0.10	5.0		105.0	58	132	0.0	0.0		

Associated Samples: **B21122105-001C**

Run ID: Run Order: SV5973N.I_220107A: 17 **SampType:** Sample Matrix Spike **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 21:08 **Prep Date:** 12/29/2021 14:00
Lab ID: B21122088-001CMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	77	10	100	0.0	77.0	29	116				
1,2-Dichlorobenzene	72	10	100	0.0	72.0	32	111				
1,3-Dichlorobenzene	72	10	100	0.0	72.0	28	110				
1,4-Dichlorobenzene	71	10	100	0.0	71.0	29	112				
1-Methylnaphthalene	83	10	100	0.0	83.0	41	119				
2,4,5-Trichlorophenol	93	10	100	0.0	93.0	53	123				
2,4,6-Trichlorophenol	98	10	100	0.0	98.0	50	125				
2,4-Dichlorophenol	90	10	100	0.0	90.0	47	121				
2,4-Dimethylphenol	92	10	100	0.0	92.0	31	124				
2,4-Dinitrophenol	72	10	100	0.0	72.0	23	142				
2,4-Dinitrotoluene	104	10	100	0.0	104.0	57	128				
2,6-Dinitrotoluene	97	10	100	0.0	97.0	50	118				
2-Chloronaphthalene	86	10	100	0.0	86.0	40	116				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 17 **SampType:** Sample Matrix Spike **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 21:08 **Prep Date:** 12/29/2021 14:00
Lab ID: B21122088-001CMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Chlorophenol	82	10	100	0.0	82.0	38	117				
2-Methylnaphthalene	92	10	100	0.0	92.0	40	121				
2-Nitrophenol	88	10	100	0.0	88.0	47	123				
3,3´-Dichlorobenzidine	65	10	100	0.0	65.0	27	129				
4,6-Dinitro-2-methylphenol	79	10	100	0.0	79.0	44	137				
4-Bromophenyl phenyl ether	93	10	100	0.0	93.0	55	124				
4-Chloro-3-methylphenol	94	10	100	0.0	94.0	52	119				
4-Chlorophenol	87	10	100	0.0	87.0	41	81				S
4-Chlorophenyl phenyl ether	94	10	100	0.0	94.0	53	121				
4-Nitrophenol	50	10	100	0.0	50.0	15	36				S
Acenaphthene	104	10	100	0.0	104.0	47	122				
Acenaphthylene	93	10	100	0.0	93.0	41	130				
Anthracene	101	10	100	0.0	101.0	57	123				
Azobenzene	90	10	100	0.0	90.0	61	116				
Benzidine	ND	10	100	0.0	0.0	10	100				S
Benzo(a)anthracene	98	10	100	0.0	98.0	58	125				
Benzo(a)pyrene	92	10	100	0.0	92.0	54	128				
Benzo(b)fluoranthene	92	10	100	0.0	92.0	53	131				
Benzo(g,h,i)perylene	93	10	100	0.0	93.0	50	134				
Benzo(k)fluoranthene	89	10	100	0.0	89.0	57	129				
bis(-2-chloroethoxy)Methane	91	10	100	0.0	91.0	48	120				
bis(-2-chloroethyl)Ether	86	10	100	0.0	86.0	43	118				
bis(2-chloroisopropyl)Ether	66	10	100	0.0	66.0	37	130				
bis(2-ethylhexyl)Phthalate	101	10	100	3.3	98.0	55	135				
Butylbenzylphthalate	106	10	100	0.0	106.0	53	134				
Chrysene	95	10	100	0.0	95.0	59	123				
Dibenzo(a,h)anthracene	96	10	100	0.0	96.0	51	134				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 17 **SampType:** Sample Matrix Spike **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 21:08 **Prep Date:** 12/29/2021 14:00
Lab ID: B21122088-001CMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	105	10	100	0.0	105.0	56	125				
Dimethyl phthalate	100	10	100	0.0	100.0	45	127				
Di-n-butyl phthalate	106	10	100	0.0	106.0	59	127				
Di-n-octyl phthalate	95	10	100	0.0	95.0	51	140				
Fluoranthene	92	10	100	0.0	92.0	57	128				
Fluorene	98	10	100	0.0	98.0	52	124				
Hexachlorobenzene	82	10	100	0.0	82.0	53	125				
Hexachlorobutadiene	72	10	100	0.0	72.0	22	124				
Hexachlorocyclopentadiene	68	10	100	0.0	68.0	39	91				
Hexachloroethane	68	10	100	0.0	68.0	21	115				
Indeno(1,2,3-cd)pyrene	91	10	100	0.0	91.0	52	134				
Isophorone	97	10	100	0.0	97.0	42	124				
m+p-Cresols	82	10	100	0.0	82.0	29	110				
Naphthalene	90	10	100	0.0	90.0	40	121				
Nitrobenzene	84	10	100	0.0	84.0	45	121				
n-Nitrosodimethylamine	46	10	100	0.0	46.0	20	45				S
n-Nitroso-di-n-propylamine	98	10	100	0.0	98.0	49	119				
n-Nitrosodiphenylamine	98	10	100	0.0	98.0	51	123				
o-Cresol	82	10	100	0.0	82.0	30	117				
Pentachlorophenol	107	10	100	0.0	107.0	35	138				
Phenanthrene	98	10	100	0.0	98.0	59	120				
Phenol	58	10	100	0.0	58.0	37	75				
Pyrene	91	10	100	0.0	91.0	57	126				
Pyridine	26	10	100	0.0	26.0	16	45				
Surr: 2,4,6-Tribromophenol	184	10	200	0.0	92.0	43	140				
Surr: 2-Fluorobiphenyl	79	10	100	0.0	79.0	44	119				
Surr: 2-Fluorophenol	116	10	200	0.0	58.0	19	119				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107A: 17 **SampType:** Sample Matrix Spike **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/07/2022 21:08 **Prep Date:** 12/29/2021 14:00
Lab ID: B21122088-001CMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	84	10	100	0.0	84.0	44	120				
Surr: Phenol-d5	104	10	200	0.0	52.0	10	65				
Surr: Terphenyl-d14	98	10	100	0.0	98.0	50	134				

Associated Samples: **B21122105-001C**

Run ID: Run Order: SV5975.I_220110A: 16 **SampType:** Sample Matrix Spike **Batch ID:** 162577
Method: SW8270C **Analysis Date:** 01/10/2022 19:16 **Prep Date:** 12/29/2021 13:59
Lab ID: B21122105-001CLMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.8	0.10	5.0	0.0	76.0	41	115				
2-Methylnaphthalene	3.6	0.10	5.0	0.0	72.0	39	114				
Naphthalene	3.3	0.10	5.0	0.0	66.0	43	114				
Surr: 2-Fluorobiphenyl	3.9	0.10	5.0	0.0	79.0	53	106				
Surr: Nitrobenzene-d5	3.1	0.10	5.0	0.0	62.0	55	111				
Surr: Terphenyl-d14	5.1	0.10	5.0	0.0	102.0	58	132				

Associated Samples: **B21122105-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5975.I_220110A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372987
Method: SW8270C **Analysis Date:** 01/10/2022 11:43 **Prep Date:**
Lab ID: 10-Jan-22_CCV_2 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.2	0.10	2.0		108.0	80	120				
2-Methylnaphthalene	1.9	0.10	2.0		94.0	80	120				
Naphthalene	1.9	0.10	2.0		95.0	80	120				
Surr: 2-Fluorobiphenyl	1.9	0.10	2.0		96.0	80	120				
Surr: Nitrobenzene-d5	1.7	0.10	2.0		85.0	80	120				
Surr: Terphenyl-d14	2.0	0.10	2.0		98.0	80	120				

Associated Samples: **B21122105-001C**

Run ID: Run Order: SV5975.I_220110A: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372987
Method: SW8270C **Analysis Date:** 01/10/2022 23:03 **Prep Date:**
Lab ID: 10-Jan-22_CCV_23 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.2	0.10	2.0		111.0	50	150				
2-Methylnaphthalene	2.0	0.10	2.0		98.0	50	150				
Naphthalene	1.9	0.10	2.0		93.0	50	150				
Surr: 2-Fluorobiphenyl	1.9	0.10	2.0		94.0	50	150				
Surr: Nitrobenzene-d5	1.7	0.10	2.0		84.0	50	150				
Surr: Terphenyl-d14	2.0	0.10	2.0		100.0	50	150				

Associated Samples: **B21122105-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372992
Method: SW8270C **Analysis Date:** 01/08/2022 02:20 **Prep Date:**
Lab ID: 07-Jan-22_CCV_27 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	75	10	75		100.0	80	120				
1,2-Dichlorobenzene	77	10	75		103.0	80	120				
1,3-Dichlorobenzene	83	10	75		111.0	80	120				
1,4-Dichlorobenzene	81	10	75		108.0	80	120				
1-Methylnaphthalene	76	10	75		102.0	80	120				
2,4,5-Trichlorophenol	86	10	75		114.0	80	120				
2,4,6-Trichlorophenol	82	10	75		110.0	80	120				
2,4-Dichlorophenol	79	10	75		105.0	80	120				
2,4-Dimethylphenol	75	10	75		100.0	80	120				
2,4-Dinitrophenol	73	10	75		97.0	80	120				
2,4-Dinitrotoluene	77	10	75		103.0	80	120				
2,6-Dinitrotoluene	81	10	75		108.0	80	120				
2-Chloronaphthalene	77	10	75		103.0	80	120				
2-Chlorophenol	83	10	75		111.0	80	120				
2-Methylnaphthalene	76	10	75		101.0	80	120				
2-Nitrophenol	76	10	75		102.0	80	120				
3,3´-Dichlorobenzidine	79	10	75		106.0	80	120				
4,6-Dinitro-2-methylphenol	78	10	75		104.0	80	120				
4-Bromophenyl phenyl ether	79	10	75		106.0	80	120				
4-Chloro-3-methylphenol	80	10	75		107.0	80	120				
4-Chlorophenol	81	10	75		108.0	80	120				
4-Chlorophenyl phenyl ether	76	10	75		102.0	80	120				
4-Nitrophenol	82	10	75		109.0	80	120				
Acenaphthene	78	10	75		104.0	80	120				
Acenaphthylene	83	10	75		110.0	80	120				
Anthracene	84	10	75		113.0	80	120				
Azobenzene	79	10	75		106.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372992
Method: SW8270C **Analysis Date:** 01/08/2022 02:20 **Prep Date:**
Lab ID: 07-Jan-22_CCV_27 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzidine	73	10	75		97.0	80	120				
Benzo(a)anthracene	81	10	75		107.0	80	120				
Benzo(a)pyrene	80	10	75		107.0	80	120				
Benzo(b)fluoranthene	81	10	75		108.0	80	120				
Benzo(g,h,i)perylene	84	10	75		112.0	80	120				
Benzo(k)fluoranthene	81	10	75		108.0	80	120				
bis(-2-chloroethoxy)Methane	80	10	75		107.0	80	120				
bis(-2-chloroethyl)Ether	80	10	75		106.0	80	120				
bis(2-chloroisopropyl)Ether	78	10	75		104.0	80	120				
bis(2-ethylhexyl)Phthalate	82	10	75		109.0	80	120				
Butylbenzylphthalate	84	10	75		112.0	80	120				
Chrysene	79	10	75		106.0	80	120				
Dibenzo(a,h)anthracene	81	10	75		107.0	80	120				
Diethyl phthalate	87	10	75		116.0	80	120				
Dimethyl phthalate	75	10	75		100.0	80	120				
Di-n-butyl phthalate	81	10	75		109.0	80	120				
Di-n-octyl phthalate	84	10	75		111.0	80	120				
Fluoranthene	79	10	75		105.0	80	120				
Fluorene	83	10	75		111.0	80	120				
Hexachlorobenzene	74	10	75		98.0	80	120				
Hexachlorobutadiene	76	10	75		102.0	80	120				
Hexachlorocyclopentadiene	76	10	75		101.0	80	120				
Hexachloroethane	84	10	75		113.0	80	120				
Indeno(1,2,3-cd)pyrene	81	10	75		109.0	80	120				
Isophorone	80	10	75		107.0	80	120				
m+p-Cresols	87	10	75		116.0	80	120				
Naphthalene	79	10	75		105.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372992
Method: SW8270C **Analysis Date:** 01/08/2022 02:20 **Prep Date:**
Lab ID: 07-Jan-22_CCV_27 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Nitrobenzene	79	10	75		105.0	80	120				
n-Nitrosodimethylamine	61	10	75		81.0	80	120				
n-Nitroso-di-n-propylamine	82	10	75		109.0	80	120				
n-Nitrosodiphenylamine	82	10	75		109.0	80	120				
o-Cresol	81	10	75		109.0	80	120				
Pentachlorophenol	85	10	75		113.0	80	120				
Phenanthrene	79	10	75		106.0	80	120				
Phenol	84	10	75		112.0	80	120				
Pyrene	79	10	75		105.0	80	120				
Pyridine	68	10	75		90.0	80	120				
Surr: 2,4,6-Tribromophenol	78	10	75		104.0	80	120				
Surr: 2-Fluorobiphenyl	79	10	75		106.0	80	120				
Surr: 2-Fluorophenol	87	10	75		115.0	80	120				
Surr: Nitrobenzene-d5	85	10	75		113.0	80	120				
Surr: Phenol-d5	85	10	75		113.0	80	120				
Surr: Terphenyl-d14	79	10	75		105.0	80	120				

Associated Samples: **B21122105-001C**

Run ID: Run Order: SV5973N.I_220107B: 17 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372992
Method: SW8270C **Analysis Date:** 01/08/2022 10:24 **Prep Date:**
Lab ID: 07-Jan-22_CCV_42 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	76	50	75		101.0	50	150				
1,2-Dichlorobenzene	79	50	75		105.0	50	150				
1,3-Dichlorobenzene	79	50	75		106.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107B: 17 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372992
Method: SW8270C **Analysis Date:** 01/08/2022 10:24 **Prep Date:**
Lab ID: 07-Jan-22_CCV_42 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	78	50	75		104.0	50	150				
1-Methylnaphthalene	77	50	75		103.0	50	150				
2,4,5-Trichlorophenol	86	50	75		114.0	50	150				
2,4,6-Trichlorophenol	89	50	75		119.0	50	150				
2,4-Dichlorophenol	82	50	75		110.0	50	150				
2,4-Dimethylphenol	78	50	75		103.0	50	150				
2,4-Dinitrophenol	ND	100	75		87.0	50	150				
2,4-Dinitrotoluene	73	50	75		98.0	50	150				
2,6-Dinitrotoluene	82	50	75		109.0	50	150				
2-Chloronaphthalene	79	50	75		105.0	50	150				
2-Chlorophenol	80	50	75		107.0	50	150				
2-Methylnaphthalene	79	50	75		105.0	50	150				
2-Nitrophenol	75	50	75		100.0	50	150				
3,3´-Dichlorobenzidine	ND	100	75		106.0	50	150				
4,6-Dinitro-2-methylphenol	ND	100	75		97.0	50	150				
4-Bromophenyl phenyl ether	77	50	75		102.0	50	150				
4-Chloro-3-methylphenol	81	50	75		108.0	50	150				
4-Chlorophenol	79	50	75		106.0	50	150				
4-Chlorophenyl phenyl ether	78	50	75		104.0	50	150				
4-Nitrophenol	ND	100	75		103.0	50	150				
Acenaphthene	75	50	75		100.0	50	150				
Acenaphthylene	77	50	75		103.0	50	150				
Anthracene	79	50	75		105.0	50	150				
Azobenzene	74	50	75		98.0	50	150				
Benzidine	ND	100	75		94.0	50	150				
Benzo(a)anthracene	80	50	75		107.0	50	150				
Benzo(a)pyrene	81	50	75		108.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107B: 17 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372992
Method: SW8270C **Analysis Date:** 01/08/2022 10:24 **Prep Date:**
Lab ID: 07-Jan-22_CCV_42 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	79	50	75		106.0	50	150				
Benzo(g,h,i)perylene	79	50	75		106.0	50	150				
Benzo(k)fluoranthene	82	50	75		109.0	50	150				
bis(-2-chloroethoxy)Methane	79	50	75		105.0	50	150				
bis(-2-chloroethyl)Ether	77	50	75		102.0	50	150				
bis(2-chloroisopropyl)Ether	78	50	75		104.0	50	150				
bis(2-ethylhexyl)Phthalate	79	50	75		105.0	50	150				
Butylbenzylphthalate	83	50	75		110.0	50	150				
Chrysene	80	50	75		106.0	50	150				
Dibenzo(a,h)anthracene	81	50	75		108.0	50	150				
Diethyl phthalate	79	50	75		105.0	50	150				
Dimethyl phthalate	74	50	75		99.0	50	150				
Di-n-butyl phthalate	78	50	75		104.0	50	150				
Di-n-octyl phthalate	82	50	75		109.0	50	150				
Fluoranthene	75	50	75		100.0	50	150				
Fluorene	79	50	75		105.0	50	150				
Hexachlorobenzene	74	50	75		98.0	50	150				
Hexachlorobutadiene	76	50	75		101.0	50	150				
Hexachlorocyclopentadiene	72	50	75		96.0	50	150				
Hexachloroethane	80	50	75		106.0	50	150				
Indeno(1,2,3-cd)pyrene	82	50	75		109.0	50	150				
Isophorone	83	50	75		110.0	50	150				
m+p-Cresols	82	50	75		109.0	50	150				
Naphthalene	78	50	75		105.0	50	150				
Nitrobenzene	81	50	75		108.0	50	150				
n-Nitrosodimethylamine	66	50	75		88.0	50	150				
n-Nitroso-di-n-propylamine	82	50	75		109.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Run ID: Run Order: SV5973N.I_220107B: 17 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372992
Method: SW8270C **Analysis Date:** 01/08/2022 10:24 **Prep Date:**
Lab ID: 07-Jan-22_CCV_42 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
n-Nitrosodiphenylamine	ND	100	75		102.0	50	150				
o-Cresol	78	50	75		104.0	50	150				
Pentachlorophenol	ND	100	75		108.0	50	150				
Phenanthrene	76	50	75		102.0	50	150				
Phenol	84	50	75		112.0	50	150				
Pyrene	77	50	75		103.0	50	150				
Pyridine	70	50	75		94.0	50	150				
Surr: 2,4,6-Tribromophenol	79	50	75		106.0	50	150				
Surr: 2-Fluorobiphenyl	79	50	75		106.0	50	150				
Surr: 2-Fluorophenol	82	50	75		109.0	50	150				
Surr: Nitrobenzene-d5	81	50	75		108.0	50	150				
Surr: Phenol-d5	82	50	75		109.0	50	150				
Surr: Terphenyl-d14	78	50	75		104.0	50	150				

Associated Samples: **B21122105-001C**

Analytical QC Exceptions Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01

Report Date: 02/23/2022

Analysis Method	Analysis	Batch ID	Associated Samples	Sample Type	Lab ID	Analysis Date	Analysis Time	Analyte	%REC	Low Limit	High Limit	% RPD	RPD Limit	Qual
SW6020	Metals by ICP-MS, Dissolved	R372863	001A	SD	B21122168-001ADIL	1/6/2022	18:05	Lead					10.0	N
	Metals by ICP-MS, Total	162587	001B	SD	B21122088-001BDIL	1/6/2022	16:22	Lead					10.0	N
SW8260B	8260-Volatile Organic Compounds QC Samples	R372936	001G, 002A	CCV	CCV123021_	12/30/2021	10:44	Chloroethane	70.0	80	120			S
SW8270C	Low Level PAH	162577	001C	MBLK	MB-162577	1/10/2022	13:20	Surr: 2-Fluorobiphenyl	43.0	53	106			S
	Semi-Volatile Organic Compounds, Extended List	162577	001C	LCS-DOD	LCS-162577	1/7/2022	18:59	4-Chlorophenol	83.0	41	81			S
								4-Nitrophenol	48.0	15	36			S
								n-Nitrosodimethylamine	49.0	20	45			S
				LCSD-DOD	LCSD-162577	1/7/2022	19:31	2,6-Dinitrotoluene	119.0	50	118	16	20.0	S
								4-Chlorophenol	89.0	41	81	7.9	20.0	S
								4-Nitrophenol	52.0	15	36	6.6	20.0	S
								Benzidine	20.0	10	100	37	20.0	R
								Hexachlorocyclopentadiene	85.0	39	91	21	20.0	R
								n-Nitrosodimethylamine	46.0	20	45	6.5	20.0	S
				MS-DOD	B21122088-001CMS	1/7/2022	21:08	4-Chlorophenol	87.0	41	81			S
								4-Nitrophenol	50.0	15	36			S
								Benzidine	0.0	10	100			S
								n-Nitrosodimethylamine	46.0	20	45			S

Preparation and Analysis Dates Report

Work Order: B21122105
Client: AECOM - Honolulu
Project Name: CV18F0126/60571032.02.46.01
Report Date: 2/23/2022

Lab ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Method	Prep Date	Prep Batch	Analysis Method	Analysis Date
001B	ERH2249 (RHMW12A)	12/22/2021 18:20	Ground Water	Metals by ICP-MS, Total		SW3010A	12/29/2021 15:43	162587	SW6020	01/06/2022 17:53
001C	ERH2249 (RHMW12A)	12/22/2021 18:20	Ground Water	Low Level PAH		SW3510C	12/29/2021 13:59	162577	SW8270C	01/10/2022 18:12
						SW3510C	12/29/2021 13:59	162577	SW8270C	01/10/2022 18:44
				Semi-Volatile Organic Compounds		SW3510C	12/29/2021 13:59	162577	SW8270C	01/08/2022 03:25
001D	ERH2249 (RHMW12A)	12/22/2021 18:20	Ground Water	Diesel Range Organics		SW3520C	12/29/2021 14:19	162579	SW8015C	01/01/2022 14:47
001H	ERH2249 (RHMW12A)	12/22/2021 18:20	Ground Water	EDB in Water by ECD		SW8011	12/30/2021 09:34	162607	SW8011	12/30/2021 20:18
004A	ERH2248 Trip Blank-14451	12/22/2021 18:20	Trip Blank	EDB in Water by ECD		SW8011	12/30/2021 09:34	162607	SW8011	12/30/2021 20:38

Chemical Abstracts Service (CAS) Registry Numbers

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21122105
Project: CV18F0126/60571032.02.46.01 **Report Date:** 02/23/2022

Analyses	CAS No
AGGREGATE ORGANICS	
Organic Carbon, Total (TOC)	7440-44-0
METALS, TOTAL	
Lead	7439-92-1
METALS, DISSOLVED	
Lead	7439-92-1
VOLATILE ORGANIC COMPOUNDS	
Benzene	71-43-2
Bromobenzene	108-86-1
Bromochloromethane	74-97-5
Bromodichloromethane	75-27-4
Bromoform	75-25-2
Bromomethane	74-83-9
Carbon tetrachloride	56-23-5
Chlorobenzene	108-90-7
Chlorodibromomethane	124-48-1
Chloroethane	75-00-3
Chloroform	67-66-3
Chloromethane	74-87-3
1,2-Dibromoethane	106-93-4
2-Chlorotoluene	95-49-8
4-Chlorotoluene	106-43-4
Dibromomethane	74-95-3
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Dichlorodifluoromethane	75-71-8
1,1-Dichloroethane	75-34-3
1,2-Dichloroethane	107-06-2
1,1-Dichloroethene	75-35-4
cis-1,2-Dichloroethene	156-59-2
trans-1,2-Dichloroethene	156-60-5
1,2-Dichloropropane	78-87-5
1,3-Dichloropropane	142-28-9
2,2-Dichloropropane	594-20-7
1,1-Dichloropropene	563-58-6
cis-1,3-Dichloropropene	10061-01-5
trans-1,3-Dichloropropene	10061-02-6

Ethylbenzene	100-41-4
Methyl ethyl ketone	78-93-3
Methyl tert-butyl ether (MTBE)	1634-04-4
Methylene chloride	75-09-2
Styrene	100-42-5
1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	79-34-5
Tetrachloroethene	127-18-4
Toluene	108-88-3
1,1,1-Trichloroethane	71-55-6
1,1,2-Trichloroethane	79-00-5
Trichloroethene	79-01-6
Trichlorofluoromethane	75-69-4
1,2,3-Trichloropropane	96-18-4
Vinyl chloride	75-01-4
m+p-Xylenes	179601-23-1
o-Xylene	95-47-6
Xylenes, Total	1330-20-7

VOCS BY MICROEXTRACTION-ECD

1,2-Dibromoethane	106-93-4

PETROLEUM HYDROCARBONS-VOLATILE

C6 to C10	
Total Purgeable Hydrocarbons	

PETROLEUM HYDROCARBONS-SEMI-VOLATILE

Diesel Range Organics (C10 to C24)	
Oil Range Hydrocarbons (C24 to C40)	
Total Extractable Hydrocarbons	

ORGANIC CHARACTERISTICS

Methane	74-82-8

SEMI-VOLATILE ORGANIC COMPOUNDS

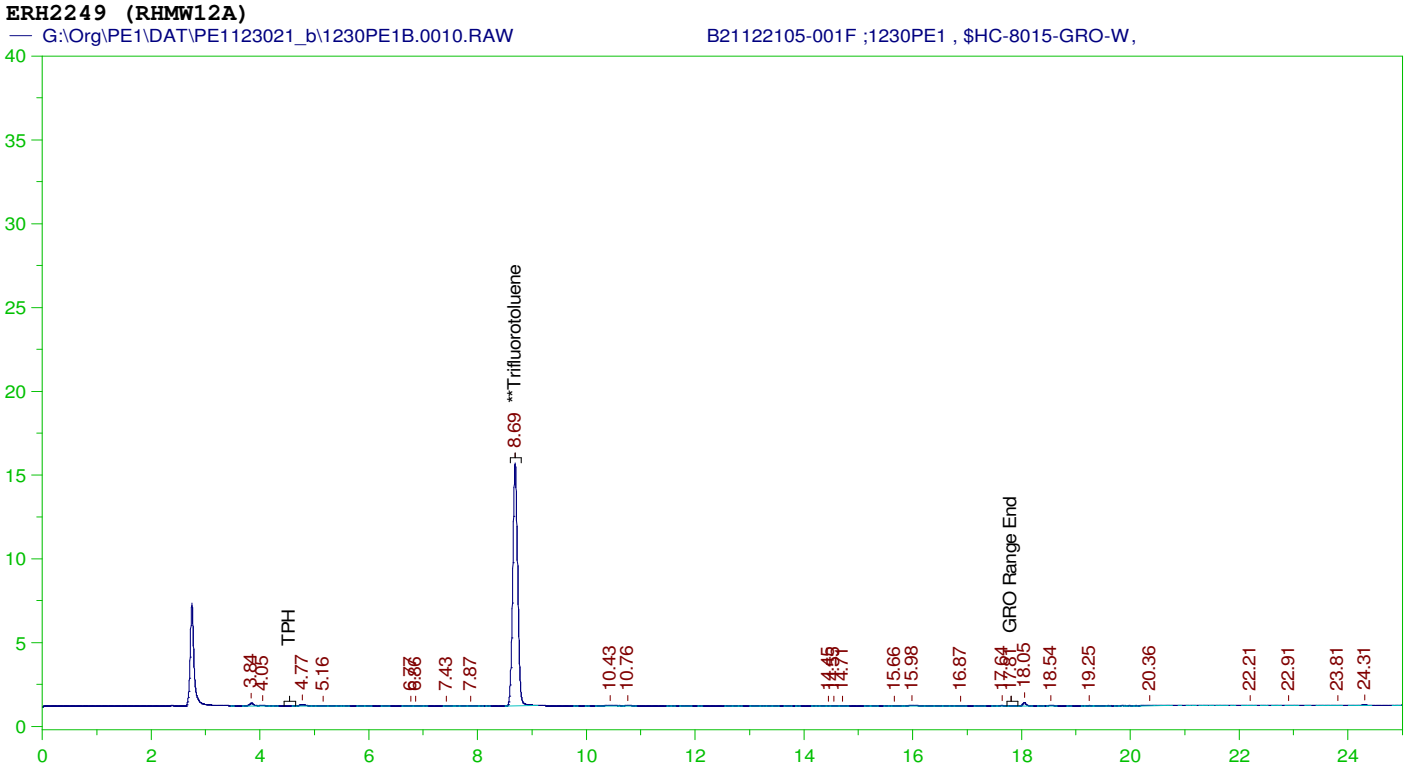
1,2,4-Trichlorobenzene	120-82-1
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
1-Methylnaphthalene	90-12-0
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
2,4-Dichlorophenol	120-83-2
2,4-Dimethylphenol	105-67-9
2,4-Dinitrophenol	51-28-5
2,4-Dinitrotoluene	121-14-2
2,6-Dinitrotoluene	606-20-2
2-Chloronaphthalene	91-58-7
2-Chlorophenol	95-57-8
2-Methylnaphthalene	91-57-6
2-Nitrophenol	88-75-5

3,3´-Dichlorobenzidine	91-94-1
4,6-Dinitro-2-methylphenol	534-52-1
4-Bromophenyl phenyl ether	101-55-3
4-Chloro-3-methylphenol	59-50-7
4-Chlorophenol	106-48-9
4-Chlorophenyl phenyl ether	7005-72-3
4-Nitrophenol	100-02-7
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Anthracene	120-12-7
Azobenzene	103-33-3
Benzidine	92-87-5
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Benzo(k)fluoranthene	207-08-9
bis(-2-chloroethoxy)Methane	111-91-1
bis(-2-chloroethyl)Ether	111-44-4
bis(2-chloroisopropyl)Ether	108-60-1
bis(2-ethylhexyl)Phthalate	117-81-7
Butylbenzylphthalate	85-68-7
Chrysene	218-01-9
Di-n-butyl phthalate	84-74-2
Di-n-octyl phthalate	117-84-0
Dibenzo(a,h)anthracene	53-70-3
Diethyl phthalate	84-66-2
Dimethyl phthalate	131-11-3
Fluoranthene	206-44-0
Fluorene	86-73-7
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachlorocyclopentadiene	77-47-4
Hexachloroethane	67-72-1
Indeno(1,2,3-cd)pyrene	193-39-5
Isophorone	78-59-1
m+p-Cresols	15831-10-4
n-Nitroso-di-n-propylamine	621-64-7
n-Nitrosodimethylamine	62-75-9
n-Nitrosodiphenylamine	86-30-6
Naphthalene	91-20-3
Nitrobenzene	98-95-3
o-Cresol	95-48-7
Pentachlorophenol	87-86-5
Phenanthrene	85-01-8
Phenol	108-95-2
Pyrene	129-00-0
Pyridine	110-86-1

SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM

1-Methylnaphthalene	90-12-0
2-Methylnaphthalene	91-57-6
Naphthalene	91-20-3

ERH2249 (RHMW12A)



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

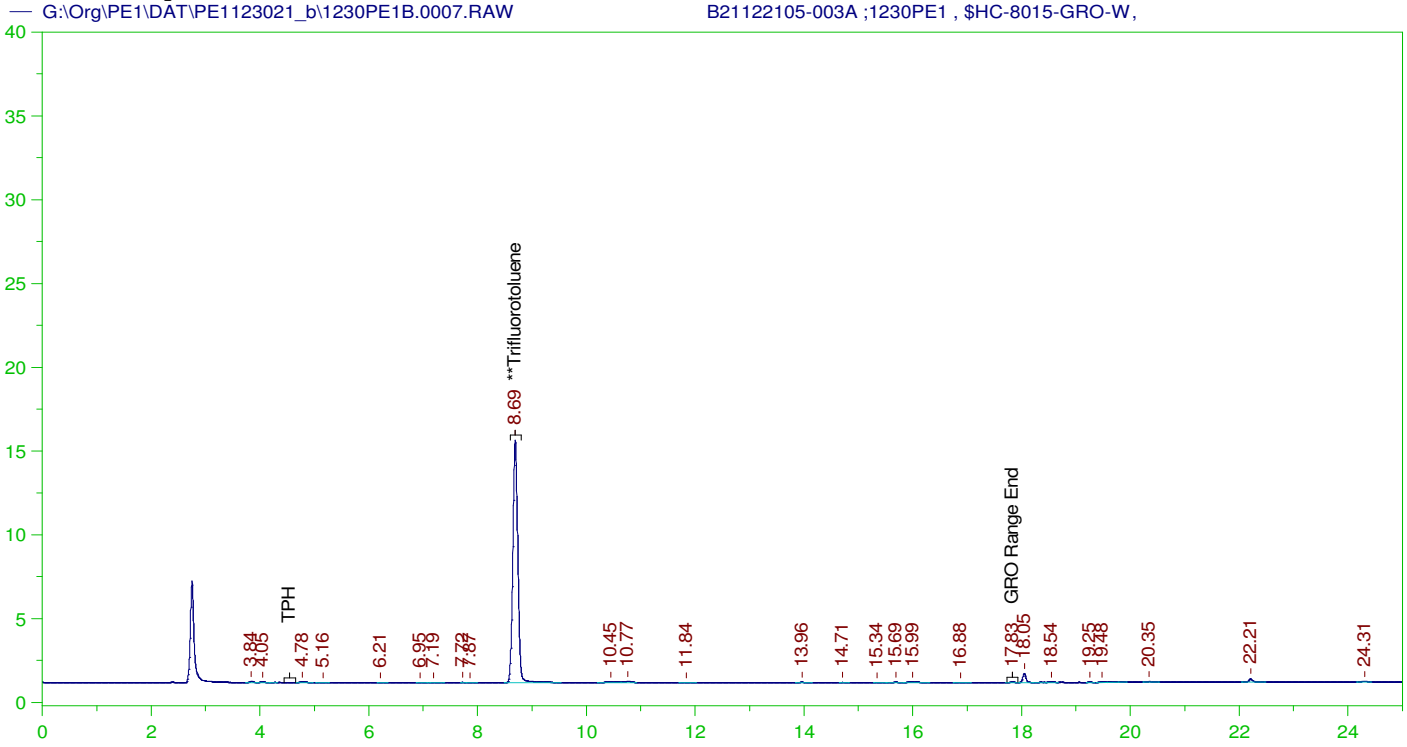
Sample Name: B21122105-001F ;1230PE1 , $HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1123021_b\1230PE1B.0010.RAW
Date & Time Acquired: 12/30/2021 12:52:52 PM
Method File: G:\Org\PE1\Methods\211208GROB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for GRO: 945.9678
Mean RF for TPH: 909.3915
Rt range for Gasoline Range Organics: 4.45 to 17.93

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	8.692	25.	19.523	78.09	-

GRO Area:4283.616 GRO Amount: 0.9056579
TPH Area:8010.968 TPH Amount: 1.76183

ERH2248 Trip Blank-14575



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122105-003A ;1230PE1 , $HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1123021_b\1230PE1B.0007.RAW
Date & Time Acquired: 12/30/2021 11:09:54 AM
Method File: G:\Org\PE1\Methods\211208G2105-3B%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

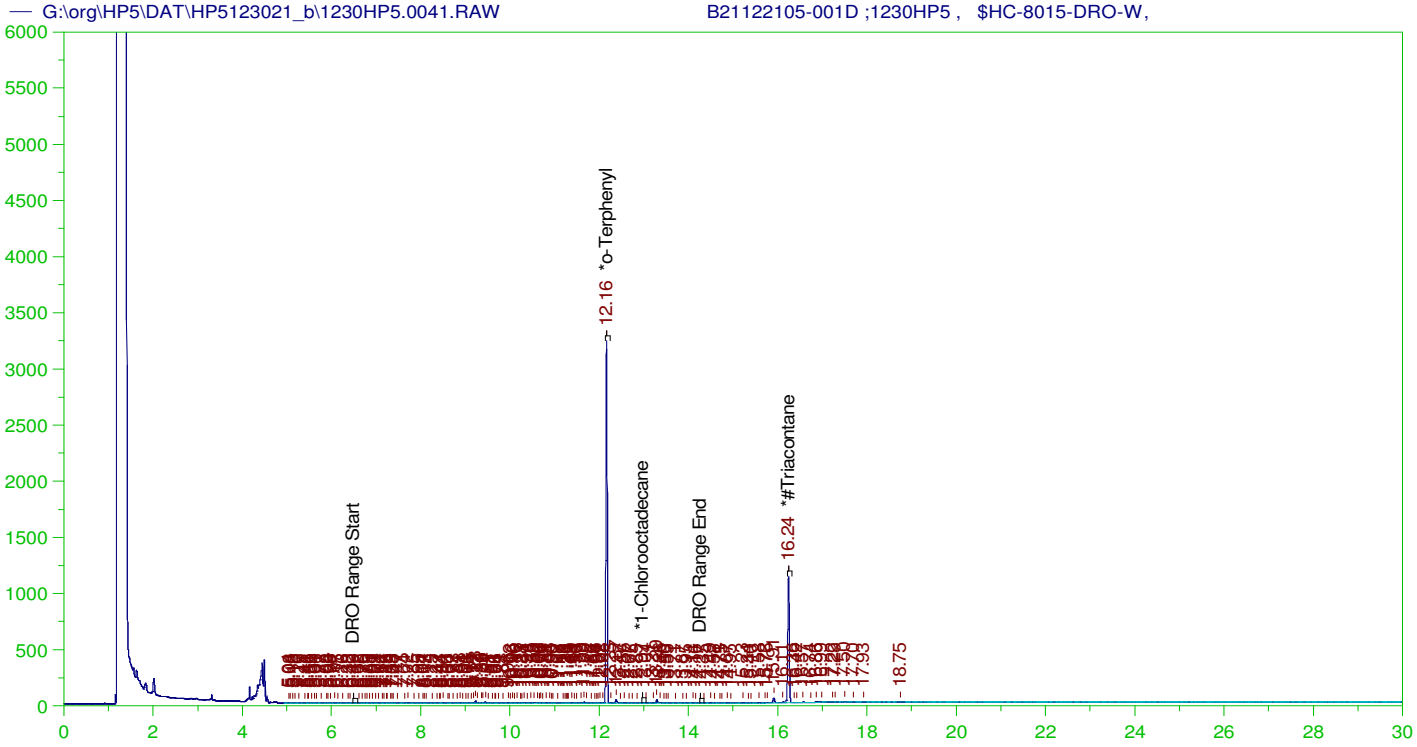
Mean RF for GRO: 945.9678
Mean RF for TPH: 909.3915
Rt range for Gasoline Range Organics: 4.45 to 17.93

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	8.694	25.	19.714	78.85	-

GRO Area:3529.65 GRO Amount: 0.7462517
TPH Area:8265.615 TPH Amount: 1.817834

ERH2249 (RHMW12A) Batch ID: 162579

G:\org\HP5\DAT\HP5123021_b\1230HP5.0041.RAW B21122105-001D ;1230HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122105-001D ;1230HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0041.RAW
Date & Time Acquired: 1/1/2022 2:47:14 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

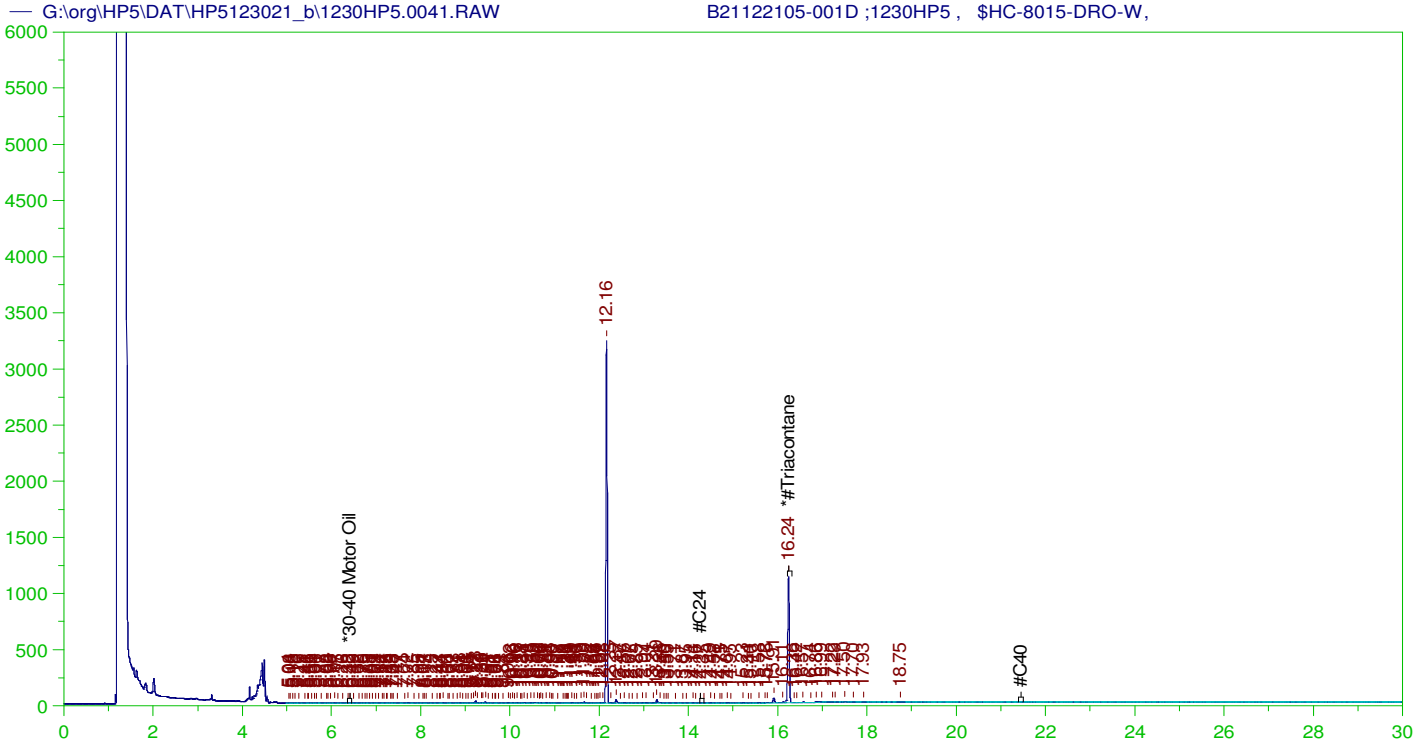
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.48 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.163	.194	.164	84.45	-
*1-Chlorooctadecane	12.972	.194	. .14		-
*#Triacontane	16.239	.194	.096	49.68	-

DRO Area:1185603 DRO Amount: 3.671302E-02
TEH Area:1599520 TEH Amount: 4.953028E-02

ERH2249 (RHMW12A) Batch ID: 162579

G:\org\HP5\DAT\HP5123021_b\1230HP5.0041.RAW B21122105-001D ;1230HP5 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21122105-001D ;1230HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0041.RAW
Date & Time Acquired: 1/1/2022 2:47:14 PM
Method File: G:\Org\HP5\Methods\DR_OROS-AMA-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AMA-SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.25 to 21.5

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.239	.485	.096	19.87	-

RRO Area:275433.7 RRO AMOUNT: 9.368914E-03

From: Ramos, Alethea <alethea.ramos@aecom.com>
Sent: Monday, December 13, 2021 3:11 PM
To: Tabitha Edwards
Cc: Pascua, Margie; billingsPM@energylab.com
Subject: RE: [EXTERNAL] FW: CV18F0126: Expedited NOI Groundwater Samples, Saturday 12/12 Submission

Categories: Must Attend

Hi Tabitha,

I believe Casper WY is DoD ELAP accredited in the TOC 9060 method. I spoke to Shari and she indicated there is a daily courier between Billings and Casper, and would be appx. a day delay. Under those stipulations, please subcontract these samples and inform on expedited TAT.

Thank you,

Alethea Ramos, CIH
Environmental Scientist, Environmental Health & Science, Environment
D +1-808-529-7283
M +1-808-389-5383
alethea.ramos@aecom.com

AECOM
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Suite 1600
Honolulu, HI 96813, United States of America
aecom.com

From: Tabitha Edwards <tedwards@energylab.com>
Sent: Monday, December 13, 2021 7:05 AM
To: Ramos, Alethea <alethea.ramos@aecom.com>
Cc: Pascua, Margie <Margie.Pascua@aecom.com>; billingsPM@energylab.com
Subject: [EXTERNAL] FW: CV18F0126: Expedited NOI Groundwater Samples, Saturday 12/12 Submission
Importance: High

Alethea,

The TOC by 9060 must be subcontracted to our office in Casper, WY. I need authorization from you to subcontract these. Once that has been received we will discuss the TAT with them and let you know what is achievable.

Thank you,

Energy Laboratories, Inc.
Trust our People. Trust our Data.

Tabitha Edwards | Office Manager | Billings, MT
O: 406-869-6286 | tedwards@energylab.com | www.energylab.com

***We want to help you ship successfully**! Please plan ahead and allow extra time to receive supplies from the lab and for the lab to receive your samples. All carriers are in full-swing holiday peak season operating with double the volume and limited capacity. We appreciate your business so please contact your local branch or Project Manager to discuss adjustments to your shipping schedule or to ask questions.*

From: Ramos, Alethea [mailto:alethea.ramos@aecom.com]
Sent: Saturday, December 11, 2021 3:20 AM
To: Shari Endy; billingsPM@energylab.com
Cc: Jillian Miller; Pascua, Margie; KaaihiliChoy, Terri Ann
Subject: CV18F0126: Expedited NOI Groundwater Samples, Saturday 12/12 Submission
Importance: High

Hi Shari and Billings PM,

You will be receiving a Saturday shipment (12/12) of groundwater samples indicated in the attached COCs. We will need results by **Wednesday, December 15th**, and will pay any fees incurred for an expedited TAT. Please proceed with analysis without preservation traceability. Please see below tracking information links:

https://www.fedex.com/fedextrack/?trknbr=287337969629&trkqual=2459558000~287337969629~FX
https://www.fedex.com/fedextrack/?trknbr=287343101019&trkqual=2459559000~287343101019~FX

Thank you,

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Environmental Scientist, Environmental Health & Science, Environment
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