ANALYTICAL SUMMARY REPORT

March 02, 2022

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

Work Order: B22011227 Quote ID: 5912

Project Name: CV18F0126, 60571032.02.46.01

Energy Laboratories Inc Billings MT received the following 5 samples from AECOM - Honolulu on 1/20/2022 for analysis.

Lab ID	Client Sample ID	Collect Date	Received Date	Matrix	Test
B22011227-001	ERH2468 (RHMW06)	01/18/22 16:30	01/20/2022	Ground Water	Metals Digestion by SW3010A DRO-Liquid-Liquid Extraction SW3520C Low Level PAH by 8270C SIM SW8270CSIM 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, Extended List SW8270C SW8011 Microextraction
B22011227-002	ERH2467 (Trip Blank) 14694	01/18/22 16:30	01/20/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22011227-003	ERH2467 (Trip Blank) 14733	01/18/22 16:30	01/20/2022	Trip Blank	Gasoline Range Organics SW8015C
B22011227-004	ERH2467 (Trip Blank) 14733	01/18/22 16:30	01/20/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction

ANALYTICAL SUMMARY REPORT

B22011227-005	ERH2467 (Trip Blank) 14732	01/18/22 16:30	01/20/2022	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: 2022.03.02 19:50:56 -07:00

CLIENT: AECOM - Honolulu
Project: CV18F0126, 60571032.02.46.01
Work Order: B22011227

Report Date: 3/2/2022

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. 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

DoD Samples

www.energylab.com COC#20220118-B 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	MM, RS, SK
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* [40ml VOA w/HCL]	8015 TPH-g [40ml VOA w/ HCL]	RSK175 Methane [40ml VOA w/H2SO4]	8011 EDB [40ml VOA w/HCL]	SVOCs (full suite+Nap, 1-2-Methylnap) by 8270D SIM*	EPA 3630/8015 TPH-d/o +SGC [1-L AG w/H2SO4]	EPA 9060 TOC [250ml AG w/ H3PO4]	EPA 6020 Total Lead [250ml HDPE w/HNO3]	EPA 6020 Diss. Lead (Field Filtered) [250ml HDPE w/HNO3]	See Attached	RUSH TAT	ELI LAB ID (Laboratory Use Only)
1	ERH2468 (RHMW06)	1/18/22	1230	19	GW	X	X	X	X	X	X	X	X	X		✓	322011727
2	ERH2467 (Trip Blank)	1/18/22	1225	8	WQ	X	X	X	X							✓	
3																	
4	TB 14694 (8260)			2													
5	TB 14733 (8015)			1													
6	TB 14733 (8011)			1													
7	TB 14732 (Methane)			2													
8	TB 14705			2													
9																	
10																	

NJ 1/18/22

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Matthew Yim	1/18/22 1800	Matthew Yim			
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print)	Date/Time	Signature
				[illegible]	1/20/22 0915	

LABORATORY USE ONLY

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

Work Order Receipt Checklist

AECOM - Honolulu

B22011227

Login completed by: Taylor K. Burris
Date Received: 1/20/2022

Reviewed by: BL2000\rshular
Received by: tjg

Reviewed Date: 1/23/2022
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:	0.4°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.

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: ERH2468 (RHMW06)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22011227-001
Collection Date: 01/18/2022 16:30
Date Received: 01/20/2022
Report Date: 03/02/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
LOW LEVEL PAH BY 8270C SIM												
1-Methylnaphthalene	ND	ug/L	1	U	0.10	0.052	0.021		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.052	0.018		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Acenaphthene	ND	ug/L	1	U	0.10	0.052	0.033		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Acenaphthylene	ND	ug/L	1	U	0.10	0.052	0.026		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Anthracene	ND	ug/L	1	U	0.10	0.052	0.029		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.052	0.028		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.052	0.036		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.052	0.024		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.052	0.028		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.052	0.031		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Chrysene	ND	ug/L	1	U	0.10	0.052	0.048		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.052	0.038		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Fluoranthene	ND	ug/L	1	U	0.10	0.052	0.024		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Fluorene	ND	ug/L	1	U	0.10	0.052	0.023		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.052	0.051		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Naphthalene	ND	ug/L	1	U	0.10	0.052	0.030		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Phenanthrene	ND	ug/L	1	U	0.10	0.052	0.031		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
Pyrene	ND	ug/L	1	U	0.10	0.052	0.025		SW8270CSIM	01/31/2022 21:08/jph	SV5975.I_220131B : 11	163174
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.5 to 0.5	0.48	mg/L	1	J	0.50	0.50	0.17		SW9060A	01/27/2022 20:20/eli-ca	SUB-C279130 : 9	C_R279130
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	01/22/2022 02:26/car	ICPMS207-B_220121A : 100	R373694
METALS, TOTAL												
Lead	0.00011	mg/L	1	J	0.001	0.0001	0.00008		SW6020	01/22/2022 02:45/car	ICPMS207-B_220121A : 103	163116
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2468 (RHMW06)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22011227-001
Collection Date: 01/18/2022 16:30
Date Received: 01/20/2022
Report Date: 03/02/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Toluene	ND	ug/L	1	UT	1.0	0.20	0.068		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Surr: Dibromofluoromethane	103.0	%REC	1		80-119				SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Surr: 1,2-Dichloroethane-d4	105.0	%REC	1		81-118				SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2468 (RHMW06)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22011227-001
Collection Date: 01/18/2022 16:30
Date Received: 01/20/2022
Report Date: 03/02/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Surr: Toluene-d8	102.0	%REC	1		89-112				SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	01/24/2022 15:13/msc	VOA5975C.I_220124A : 12	R373742
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0048	0.0025		SW8011	01/22/2022 15:53/clt	GECD.I_220121A : 61	163129
Surr: 1,1,1,2-Tetrachloroethane	92.0	%REC	1		70-130				SW8011	01/22/2022 15:53/clt	GECD.I_220121A : 61	163129
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	01/22/2022 02:51/jp	PE 1_220120A : 54	R373498
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/22/2022 02:51/jp	PE 1_220120A : 54	R373498
Surr: Trifluorotoluene	75.0	%REC	1		70-130				SW8015C	01/22/2022 02:51/jp	PE 1_220120A : 54	R373498
- 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	0.039		SW8015C	01/24/2022 12:50/amn	GCFID-HP5-B_220124A : 3	163074
Diesel Range Organics (SGT-C10 to C24)	ND	mg/L	1	U	0.30	0.12	0.039		SW8015C	01/25/2022 17:14/amn	GCFID-HP5-B_220124B : 22	163074
Oil Range Hydrocarbons (C24 to C40)	0.090	mg/L	1	J	0.30	0.15	0.089		SW8015C	01/24/2022 12:50/amn	GCFID-HP5-B_220124A : 3	163074
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.15	0.089		SW8015C	01/25/2022 17:14/amn	GCFID-HP5-B_220124B : 22	163074
Total Extractable Hydrocarbons	0.12	mg/L	1	J	0.30	0.15	0.076		SW8015C	01/24/2022 12:50/amn	GCFID-HP5-B_220124A : 3	163074
Total Extractable Hydrocarbons (SGT)	ND	mg/L	1	U	0.30	0.12	0.033		SW8015C	01/25/2022 17:14/amn	GCFID-HP5-B_220124B : 22	163074
Surr: o-Terphenyl	100.0	%REC	1		56-125				SW8015C	01/24/2022 12:50/amn	GCFID-HP5-B_220124A : 3	163074
Surr: o-Terphenyl (SGT)	78.0	%REC	1		56-125				SW8015C	01/25/2022 17:14/amn	GCFID-HP5-B_220124B : 22	163074
Surr: n-Triacontane	103.0	%REC	1		50-150				SW8015C	01/24/2022 12:50/amn	GCFID-HP5-B_220124A : 3	163074
Surr: n-Triacontane (SGT)	73.0	%REC	1		50-150				SW8015C	01/25/2022 17:14/amn	GCFID-HP5-B_220124B : 22	163074
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/21/2022 11:29/jdw	FID-HEADSPACE_220121A : 16	R373537
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.2		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.1		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.2	2.3		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.2	2.7		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.2	1.8		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.2	1.8		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
2,4-Dinitrophenol	ND	ug/L	1	U	10	10	4.4		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.2	3.2		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2468 (RHMW06)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22011227-001
Collection Date: 01/18/2022 16:30
Date Received: 01/20/2022
Report Date: 03/02/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
2,6-Dinitrotoluene	ND	ug/L	1	U	10	5.2	3.3		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
2-Chloronaphthalene	ND	ug/L	1	U	10	5.2	2.2		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
2-Chlorophenol	ND	ug/L	1	U	10	5.2	2.6		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
2-Nitrophenol	ND	ug/L	1	U	10	5.2	2.5		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
3,3´-Dichlorobenzidine	ND	ug/L	1	U	10	5.2	2.2		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	10	2.4		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	5.2	1.8		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.2	1.5		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
4-Chlorophenol	ND	ug/L	1	U	10	5.2	2.7		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.2	2.1		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
4-Nitrophenol	ND	ug/L	1	U	10	10	2.6		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Azobenzene	ND	ug/L	1	U	10	5.2	1.1		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.2	1.4		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.2	2.7		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.2	1.5		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	5.2	2.0		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Butylbenzylphthalate	ND	ug/L	1	U	10	5.2	1.6		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Di-n-butyl phthalate	ND	ug/L	1	U	10	5.2	0.97		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.2	1.4		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Diethyl phthalate	ND	ug/L	1	U	10	5.2	2.3		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Dimethyl phthalate	ND	ug/L	1	U	10	5.2	1.8		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Hexachlorobenzene	ND	ug/L	1	U	10	5.2	1.4		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Hexachlorobutadiene	ND	ug/L	1	U	10	5.2	2.4		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.2	3.1		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Hexachloroethane	ND	ug/L	1	U	10	5.2	1.9		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Isophorone	ND	ug/L	1	U	10	5.2	1.7		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
m+p-Cresols	ND	ug/L	1	U	10	5.2	1.9		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.2	1.6		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.2	1.6		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.2	1.2		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Nitrobenzene	ND	ug/L	1	U	10	5.2	2.4		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
o-Cresol	ND	ug/L	1	U	10	5.2	1.9		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Pentachlorophenol	ND	ug/L	1	U	10	10	4.4		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Phenol	ND	ug/L	1	U	10	5.2	1.5		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Pyridine	ND	ug/L	1	U	10	5.2	3.3		SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Surr: 2,4,6-Tribromophenol	82.0	%REC	1		43-140				SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Surr: 2-Fluorobiphenyl	67.0	%REC	1		44-119				SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Surr: 2-Fluorophenol	31.0	%REC	1		19-119				SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Surr: Nitrobenzene-d5	58.0	%REC	1		44-120				SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011227-001
Client: AECOM - Honolulu
Collection Date: 01/18/2022 16:30
Client Sample ID: ERH2468 (RHMW06)
Date Received: 01/20/2022
Project: CV18F0126, 60571032.02.46.01
Report Date: 03/02/2022
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Surr: Phenol-d5	33.0	%REC	1		10-65				SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174
Surr: Terphenyl-d14	96.0	%REC	1		50-134				SW8270C	02/2/2022 14:04/dsm	SV5973N.I_220201B : 16	163174

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2467 (Trip Blank) 14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011227-002
Collection Date: 01/18/2022 16:30
Date Received: 01/20/2022
Report Date: 03/02/2022

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	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Toluene	0.26	ug/L	1	J	1.0	0.20	0.068		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011227-002
Client: AECOM - Honolulu
Collection Date: 01/18/2022 16:30
Client Sample ID: ERH2467 (Trip Blank) 14694
Date Received: 01/20/2022
Project: CV18F0126, 60571032.02.46.01
Report Date: 03/02/2022
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Surr: Dibromofluoromethane	106.0	%REC	1		80-119				SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Surr: 1,2-Dichloroethane-d4	107.0	%REC	1		81-118				SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Surr: Toluene-d8	100.0	%REC	1		89-112				SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	01/24/2022 18:52/msc	VOA5975C.I_220124A : 19	R373742

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011227-003
Client: AECOM - Honolulu
Collection Date: 01/18/2022 16:30
Client Sample ID: ERH2467 (Trip Blank) 14733
Date Received: 01/20/2022
Project: CV18F0126, 60571032.02.46.01
Report Date: 03/02/2022
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	01/21/2022 14:51/jp	PE 1_220120A : 40	R373498
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/21/2022 14:51/jp	PE 1_220120A : 40	R373498
Surr: Trifluorotoluene	80.0	%REC	1		70-130				SW8015C	01/21/2022 14:51/jp	PE 1_220120A : 40	R373498

- 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: ERH2467 (Trip Blank) 14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011227-004
Collection Date: 01/18/2022 16:30
Date Received: 01/20/2022
Report Date: 03/02/2022

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	0.0048	0.0025		SW8011	01/22/2022 16:13/clt	GECD.I_220121A : 62	163129
Surr: 1,1,1,2-Tetrachloroethane	92.0	%REC	1		70-130				SW8011	01/22/2022 16:13/clt	GECD.I_220121A : 62	163129

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2467 (Trip Blank) 14732
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011227-005
Collection Date: 01/18/2022 16:30
Date Received: 01/20/2022
Report Date: 03/02/2022

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	01/21/2022 11:34/jdw	FID-HEADSPACE_220121A : 17	R373537

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5975.I_220131B: 7 **SampType:** Method Blank **Batch ID:** 163174
Method: SW8270CSIM **Analysis Date:** 01/31/2022 18:57 **Prep Date:** 01/24/2022 11:48
Lab ID: MB-163174 **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									
Acenaphthene	ND	0.10									
Acenaphthylene	ND	0.10									
Anthracene	ND	0.10									
Benzo(a)anthracene	ND	0.10									
Benzo(a)pyrene	ND	0.10									
Benzo(b)fluoranthene	ND	0.10									
Benzo(g,h,i)perylene	ND	0.10									
Benzo(k)fluoranthene	ND	0.10									
Chrysene	ND	0.10									
Dibenzo(a,h)anthracene	ND	0.10									
Fluoranthene	ND	0.10									
Fluorene	ND	0.10									
Indeno(1,2,3-cd)pyrene	ND	0.10									
Naphthalene	ND	0.10									
Phenanthrene	ND	0.10									
Pyrene	ND	0.10									

Associated Samples: **B22011227-001C**

Run ID: Run Order: SV5975.I_220131B: 8 **SampType:** Laboratory Control Sample **Batch ID:** 163174
Method: SW8270CSIM **Analysis Date:** 01/31/2022 19:30 **Prep Date:** 01/24/2022 11:48
Lab ID: LLCS-163174 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.5	0.10	5.0		69.0	41	115				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5975.I_220131B: 8 **SampType:** Laboratory Control Sample **Batch ID:** 163174
Method: SW8270CSIM **Analysis Date:** 01/31/2022 19:30 **Prep Date:** 01/24/2022 11:48
Lab ID: LLCS-163174 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Methylnaphthalene	3.5	0.10	5.0		70.0	39	114				
Acenaphthene	4.3	0.10	5.0		86.0	48	114				
Acenaphthylene	4.2	0.10	5.0		85.0	35	121				
Anthracene	5.0	0.10	5.0		101.0	53	119				
Benzo(a)anthracene	5.4	0.10	5.0		107.0	59	120				
Benzo(a)pyrene	5.1	0.10	5.0		101.0	53	120				
Benzo(b)fluoranthene	5.1	0.10	5.0		101.0	53	126				
Benzo(g,h,i)perylene	4.9	0.10	5.0		99.0	44	128				
Benzo(k)fluoranthene	4.8	0.10	5.0		96.0	54	125				
Chrysene	5.1	0.10	5.0		103.0	57	120				
Dibenzo(a,h)anthracene	5.2	0.10	5.0		104.0	44	141				
Fluoranthene	5.0	0.10	5.0		100.0	58	120				
Fluorene	4.5	0.10	5.0		91.0	50	118				
Indeno(1,2,3-cd)pyrene	5.2	0.10	5.0		104.0	48	130				
Naphthalene	3.2	0.10	5.0		65.0	43	114				
Phenanthrene	4.7	0.10	5.0		94.0	53	115				
Pyrene	4.7	0.10	5.0		94.0	53	121				

Associated Samples: **B22011227-001C**

Run ID: Run Order: SV5975.I_220131B: 9 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163174
Method: SW8270CSIM **Analysis Date:** 01/31/2022 20:02 **Prep Date:** 01/24/2022 11:48
Lab ID: LLCSD-163174 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.5	0.10	5.0		70.0	41	115	3.5	0.8	40.0	
2-Methylnaphthalene	3.5	0.10	5.0		70.0	39	114	3.5	0.4	40.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5975.I_220131B: 9 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163174
Method: SW8270CSIM **Analysis Date:** 01/31/2022 20:02 **Prep Date:** 01/24/2022 11:48
Lab ID: LLCSD-163174 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Acenaphthene	4.0	0.10	5.0		80.0	48	114	4.3	7.5	40.0	
Acenaphthylene	4.0	0.10	5.0		79.0	35	121	4.2	6.4	40.0	
Anthracene	5.1	0.10	5.0		102.0	53	119	5.0	1.1	40.0	
Benzo(a)anthracene	5.4	0.10	5.0		108.0	59	120	5.4	0.6	40.0	
Benzo(a)pyrene	5.1	0.10	5.0		102.0	53	120	5.1	0.8	40.0	
Benzo(b)fluoranthene	5.1	0.10	5.0		102.0	53	126	5.1	0.7	40.0	
Benzo(g,h,i)perylene	5.0	0.10	5.0		99.0	44	128	4.9	0.9	40.0	
Benzo(k)fluoranthene	5.0	0.10	5.0		99.0	54	125	4.8	3.1	40.0	
Chrysene	5.2	0.10	5.0		105.0	57	120	5.1	1.8	40.0	
Dibenzo(a,h)anthracene	5.4	0.10	5.0		108.0	44	141	5.2	4.2	40.0	
Fluoranthene	5.0	0.10	5.0		100.0	58	120	5.0	0.4	40.0	
Fluorene	4.3	0.10	5.0		85.0	50	118	4.5	6.2	40.0	
Indeno(1,2,3-cd)pyrene	4.9	0.10	5.0		98.0	48	130	5.2	5.3	40.0	
Naphthalene	3.4	0.10	5.0		68.0	43	114	3.2	5.2	40.0	
Phenanthrene	4.7	0.10	5.0		94.0	53	115	4.7	0.3	40.0	
Pyrene	4.8	0.10	5.0		96.0	53	121	4.7	2.4	40.0	

Associated Samples: **B22011227-001C**

Run ID: Run Order: SV5975.I_220131B: 16 **SampType:** Sample Matrix Spike **Batch ID:** 163174
Method: SW8270CSIM **Analysis Date:** 01/31/2022 23:51 **Prep Date:** 01/25/2022 08:25
Lab ID: B22011446-011CLMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.4	0.10	5.1	0.0	66.0	41	115				
2-Methylnaphthalene	3.5	0.10	5.1	0.0	69.0	39	114				
Acenaphthene	4.1	0.10	5.1	0.0	81.0	48	114				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5975.I_220131B: 16 **SampType:** Sample Matrix Spike **Batch ID:** 163174
Method: SW8270CSIM **Analysis Date:** 01/31/2022 23:51 **Prep Date:** 01/25/2022 08:25
Lab ID: B22011446-011CLMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Acenaphthylene	4.0	0.10	5.1	0.0	78.0	35	121				
Anthracene	4.9	0.10	5.1	0.0	96.0	53	119				
Benzo(a)anthracene	5.2	0.10	5.1	0.0	103.0	59	120				
Benzo(a)pyrene	4.6	0.10	5.1	0.0	91.0	53	120				
Benzo(b)fluoranthene	4.6	0.10	5.1	0.0	91.0	53	126				
Benzo(g,h,i)perylene	4.8	0.10	5.1	0.0	93.0	44	128				
Benzo(k)fluoranthene	4.3	0.10	5.1	0.0	85.0	54	125				
Chrysene	4.8	0.10	5.1	0.0	94.0	57	120				
Dibenzo(a,h)anthracene	4.9	0.10	5.1	0.0	97.0	44	141				
Fluoranthene	4.9	0.10	5.1	0.0	95.0	58	120				
Fluorene	4.1	0.10	5.1	0.0	81.0	50	118				
Indeno(1,2,3-cd)pyrene	5.0	0.10	5.1	0.0	97.0	48	130				
Naphthalene	3.0	0.10	5.1	0.0	58.0	43	114				
Phenanthrene	4.5	0.10	5.1	0.0	89.0	53	115				
Pyrene	4.7	0.10	5.1	0.0	92.0	53	121				

Associated Samples: **B22011227-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5975.I_220131B: 19 **SampType:** Sample Matrix Spike **Batch ID:** 163174
Method: SW8270CSIM **Analysis Date:** 02/01/2022 01:28 **Prep Date:** 01/25/2022 08:26
Lab ID: B22011446-017CLMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.6	0.10	4.8	0.0	75.0	41	115				
2-Methylnaphthalene	3.6	0.10	4.8	0.0	75.0	39	114				
Acenaphthene	4.4	0.10	4.8	0.0	91.0	48	114				
Acenaphthylene	4.1	0.10	4.8	0.0	85.0	35	121				
Anthracene	4.9	0.10	4.8	0.0	101.0	53	119				
Benzo(a)anthracene	5.3	0.10	4.8	0.0	110.0	59	120				
Benzo(a)pyrene	4.8	0.10	4.8	0.0	100.0	53	120				
Benzo(b)fluoranthene	4.8	0.10	4.8	0.0	99.0	53	126				
Benzo(g,h,i)perylene	4.7	0.10	4.8	0.0	98.0	44	128				
Benzo(k)fluoranthene	4.8	0.10	4.8	0.0	100.0	54	125				
Chrysene	4.7	0.10	4.8	0.0	98.0	57	120				
Dibenzo(a,h)anthracene	5.3	0.10	4.8	0.0	110.0	44	141				
Fluoranthene	4.9	0.10	4.8	0.0	101.0	58	120				
Fluorene	4.3	0.10	4.8	0.0	90.0	50	118				
Indeno(1,2,3-cd)pyrene	5.1	0.10	4.8	0.0	105.0	48	130				
Naphthalene	3.2	0.10	4.8	0.0	67.0	43	114				
Phenanthrene	4.6	0.10	4.8	0.0	96.0	53	115				
Pyrene	4.7	0.10	4.8	0.0	98.0	53	121				

Associated Samples: **B22011227-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5975.I_220131B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373993
Method: SW8270CSIM **Analysis Date:** 01/31/2022 16:14 **Prep Date:**
Lab ID: 31-Jan-22_CCV_9 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.4	0.10	2.0		118.0	80	120				
2-Methylnaphthalene	2.2	0.10	2.0		108.0	80	120				
Acenaphthene	1.9	0.10	2.0		94.0	80	120				
Acenaphthylene	2.1	0.10	2.0		106.0	80	120				
Anthracene	2.1	0.10	2.0		107.0	80	120				
Benzo(a)anthracene	2.3	0.10	2.0		115.0	80	120				
Benzo(a)pyrene	2.2	0.10	2.0		110.0	80	120				
Benzo(b)fluoranthene	2.0	0.10	2.0		98.0	80	120				
Benzo(g,h,i)perylene	1.9	0.10	2.0		96.0	80	120				
Benzo(k)fluoranthene	2.0	0.10	2.0		99.0	80	120				
Chrysene	2.0	0.10	2.0		100.0	80	120				
Dibenzo(a,h)anthracene	2.1	0.10	2.0		105.0	80	120				
Fluoranthene	2.0	0.10	2.0		99.0	80	120				
Fluorene	2.0	0.10	2.0		101.0	80	120				
Indeno(1,2,3-cd)pyrene	2.2	0.10	2.0		112.0	80	120				
Naphthalene	2.2	0.10	2.0		108.0	80	120				
Phenanthrene	2.0	0.10	2.0		101.0	80	120				
Pyrene	2.1	0.10	2.0		105.0	80	120				

Associated Samples: **B22011227-001C**

Run ID: Run Order: SV5975.I_220131B: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373993
Method: SW8270CSIM **Analysis Date:** 02/01/2022 03:38 **Prep Date:**
Lab ID: 31-Jan-22_CCV_30 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.4	0.10	2.0		119.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5975.I_220131B: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373993
Method: SW8270CSIM **Analysis Date:** 02/01/2022 03:38 **Prep Date:**
Lab ID: 31-Jan-22_CCV_30 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Methylnaphthalene	2.2	0.10	2.0		110.0	50	150				
Acenaphthene	2.1	0.10	2.0		107.0	50	150				
Acenaphthylene	2.1	0.10	2.0		105.0	50	150				
Anthracene	1.6	0.10	2.0		82.0	50	150				
Benzo(a)anthracene	2.1	0.10	2.0		105.0	50	150				
Benzo(a)pyrene	2.1	0.10	2.0		105.0	50	150				
Benzo(b)fluoranthene	2.1	0.10	2.0		104.0	50	150				
Benzo(g,h,i)perylene	2.1	0.10	2.0		107.0	50	150				
Benzo(k)fluoranthene	2.0	0.10	2.0		102.0	50	150				
Chrysene	2.0	0.10	2.0		99.0	50	150				
Dibenzo(a,h)anthracene	2.1	0.10	2.0		103.0	50	150				
Fluoranthene	2.0	0.10	2.0		102.0	50	150				
Fluorene	1.9	0.10	2.0		96.0	50	150				
Indeno(1,2,3-cd)pyrene	2.0	0.10	2.0		100.0	50	150				
Naphthalene	2.1	0.10	2.0		107.0	50	150				
Phenanthrene	2.0	0.10	2.0		101.0	50	150				
Pyrene	2.0	0.10	2.0		98.0	50	150				

Associated Samples: **B22011227-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SUB-C279130: 2 **SampType:** Method Blank **Batch ID:** C_R279130
Method: SW9060A **Analysis Date:** 01/27/2022 16:50 **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)	0.20	0.20									

Associated Samples: **B22011227-001E**
- TOC Range is 0.2 to 0.2

Run ID: Run Order: SUB-C279130: 1 **SampType:** Laboratory Control Sample **Batch ID:** C_R279130
Method: SW9060A **Analysis Date:** 01/27/2022 16:09 **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)	5.1	0.50	5.0		102.0	91	111				

Associated Samples: **B22011227-001E**
- TOC Range is 5.1 to 5.1

Run ID: Run Order: SUB-C279130: 5 **SampType:** Sample Matrix Spike **Batch ID:** C_R279130
Method: SW9060A **Analysis Date:** 01/27/2022 18:53 **Prep Date:**
Lab ID: C22010677-001EMS **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	0.68	101.0	91	111				

Associated Samples: **B22011227-001E**
- TOC Range is 5.7 to 5.8

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SUB-C279130: 6 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** C_R279130
Method: SW9060A **Analysis Date:** 01/27/2022 19:36 **Prep Date:**
Lab ID: C22010677-001EMSD **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.7	0.50	5.0	0.68	101.0	91	111	5.7	0.2	10.0	

Associated Samples: **B22011227-001E**
- TOC Range is 5.7 to 5.8

Run ID: Run Order: SUB-C279130: 3 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R279130
Method: SW9060A **Analysis Date:** 01/27/2022 17:30 **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)	5.0	0.50	5.0		101.0	90	110				

Associated Samples: **B22011227-001E**
- TOC Range is 5.0 to 5.1

Run ID: Run Order: SUB-C279130: 7 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R279130
Method: SW9060A **Analysis Date:** 01/28/2022 02:28 **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)	4.9	0.50	5.0		99.0	90	110				

Associated Samples: **B22011227-001E**
- TOC Range is 4.8 to 5.0

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: ICPMS207-B_220121A: 29 **SampType:** Method Blank **Batch ID:** R373694
Method: SW6020 **Analysis Date:** 01/21/2022 19:03 **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: **B22011227-001A**

Run ID: Run Order: ICPMS207-B_220121A: 30 **SampType:** Laboratory Fortified Blank **Batch ID:** R373694
Method: SW6020 **Analysis Date:** 01/21/2022 19:09 **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: **B22011227-001A**

Run ID: Run Order: ICPMS207-B_220121A: 45 **SampType:** Sample Matrix Spike **Batch ID:** R373694
Method: SW6020 **Analysis Date:** 01/21/2022 20:43 **Prep Date:**
Lab ID: B22011124-001AMS **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.049	0.001	0.050	0.00	99.0	88	115				

Associated Samples: **B22011227-001A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: ICPMS207-B_220121A: 46 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373694
Method: SW6020 **Analysis Date:** 01/21/2022 20:49 **Prep Date:**
Lab ID: B22011124-001AMSD **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	0.00	99.0	88	115	0.049	0.3	20.0	

Associated Samples: **B22011227-001A**

Run ID: Run Order: ICPMS207-B_220121A: 44 **SampType:** Serial Dilution **Batch ID:** R373694
Method: SW6020 **Analysis Date:** 01/21/2022 20:36 **Prep Date:**
Lab ID: B22011124-001ADIL **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	ND	0.001						0.00		10.0	

Associated Samples: **B22011227-001A**

Run ID: Run Order: ICPMS207-B_220121A: 39 **SampType:** Method Blank **Batch ID:** 163116
Method: SW6020 **Analysis Date:** 01/21/2022 20:05 **Prep Date:** 01/20/2022 13:11
Lab ID: MB-163116 **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: **B22011227-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: ICPMS207-B_220121A: 41 **SampType:** Laboratory Control Sample **Batch ID:** 163116
Method: SW6020 **Analysis Date:** 01/21/2022 20:18 **Prep Date:** 01/20/2022 13:11
Lab ID: LCS4-163116 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.098	0.001	0.100		98.0	88	115				

Associated Samples: **B22011227-001B**

Run ID: Run Order: ICPMS207-B_220121A: 97 **SampType:** Sample Matrix Spike **Batch ID:** 163116
Method: SW6020 **Analysis Date:** 01/22/2022 02:07 **Prep Date:** 01/20/2022 13:17
Lab ID: B22011214-001BMS4 **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				

Associated Samples: **B22011227-001B**

Run ID: Run Order: ICPMS207-B_220121A: 98 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 163116
Method: SW6020 **Analysis Date:** 01/22/2022 02:13 **Prep Date:** 01/20/2022 13:17
Lab ID: B22011214-001BMSD4 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.105	0.001	0.100	0	105.0	88	115	0.104	1.5	20.0	

Associated Samples: **B22011227-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: ICPMS207-B_220121A: 96 **SampType:** Post Digestion/Distillation Spike **Batch ID:** 163116
Method: SW6020 **Analysis Date:** 01/22/2022 02:01 **Prep Date:** 01/20/2022 13:17
Lab ID: B22011214-001BPDS1 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.053	0.001	0.052	0	102.0	80	120				

Associated Samples: **B22011227-001B**

Run ID: Run Order: ICPMS207-B_220121A: 95 **SampType:** Serial Dilution **Batch ID:** 163116
Method: SW6020 **Analysis Date:** 01/22/2022 01:55 **Prep Date:** 01/20/2022 13:17
Lab ID: B22011214-001BDIL **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	

Associated Samples: **B22011227-001B**

Run ID: Run Order: ICPMS207-B_220121A: 88 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373694
Method: SW6020 **Analysis Date:** 01/22/2022 01:11 **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	0.051	0.001	0.050		102.0	90	110				

Associated Samples: **B22011227-001A, B22011227-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: ICPMS207-B_220121A: 101 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373694
Method: SW6020 **Analysis Date:** 01/22/2022 02:32 **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		101.0	90	110				

Associated Samples: **B22011227-001A, B22011227-001B**

Run ID: Run Order: ICPMS207-B_220121A: 107 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373694
Method: SW6020 **Analysis Date:** 01/22/2022 03:10 **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: **B22011227-001A, B22011227-001B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 4 **SampType:** Method Blank **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 11:26 **Prep Date:**
Lab ID: MBLK012422_ **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									
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									
2,2-Dichloropropane	ND	0.50									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 4 **SampType:** Method Blank **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 11:26 **Prep Date:**
Lab ID: MBLK012422_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
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	11	0.50	10		110.0	81	118				
Surr: Dibromofluoromethane	11	0.50	10		109.0	80	119				
Surr: p-Bromofluorobenzene	11	0.50	10		107.0	85	114				
Surr: Toluene-d8	11	0.50	10		107.0	89	112				

Associated Samples: **B22011227-001F, B22011227-002A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 10:32 **Prep Date:**
Lab ID: LCS012422_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.2	0.50	5.0		103.0	79	120				
Bromobenzene	5.2	0.50	5.0		104.0	80	120				
Bromochloromethane	4.9	0.50	5.0		98.0	78	123				
Bromodichloromethane	5.3	0.50	5.0		105.0	79	125				
Bromoform	5.2	0.50	5.0		104.0	66	130				
Carbon tetrachloride	4.9	0.50	5.0		99.0	72	136				
Chlorobenzene	5.3	0.50	5.0		106.0	82	118				
Chlorodibromomethane	5.1	0.50	5.0		103.0	74	126				
Chloroethane	4.5	0.50	5.0		90.0	60	138				
Chloroform	4.8	0.50	5.0		96.0	79	124				
Chloromethane	4.5	0.50	5.0		90.0	50	139				
1,2-Dibromoethane	5.2	0.50	5.0		103.0	78	122				
2-Chlorotoluene	5.3	0.50	5.0		106.0	79	122				
Dibromomethane	5.0	0.50	5.0		101.0	79	123				
1,2-Dichlorobenzene	5.2	0.50	5.0		104.0	80	119				
4-Chlorotoluene	5.4	0.50	5.0		109.0	78	122				
1,3-Dichlorobenzene	5.3	0.50	5.0		107.0	80	119				
1,4-Dichlorobenzene	5.2	0.50	5.0		105.0	79	118				
Dichlorodifluoromethane	4.3	0.50	5.0		85.0	32	152				
1,1-Dichloroethane	5.3	0.50	5.0		106.0	77	125				
1,2-Dichloroethane	5.0	0.50	5.0		101.0	73	128				
1,1-Dichloroethene	5.1	0.50	5.0		102.0	71	131				
cis-1,2-Dichloroethene	5.2	0.50	5.0		104.0	78	123				
trans-1,2-Dichloroethene	5.1	0.50	5.0		102.0	75	124				
1,2-Dichloropropane	5.1	0.50	5.0		103.0	78	122				
1,3-Dichloropropane	5.0	0.50	5.0		100.0	80	119				
2,2-Dichloropropane	5.3	0.50	5.0		106.0	60	139				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 10:32 **Prep Date:**
Lab ID: LCS012422_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	5.0	0.50	5.0		101.0	79	125				
cis-1,3-Dichloropropene	5.0	0.50	5.0		99.0	75	124				
trans-1,3-Dichloropropene	5.4	0.50	5.0		108.0	73	127				
Ethylbenzene	5.1	0.50	5.0		103.0	79	121				
Methyl tert-butyl ether (MTBE)	5.3	0.50	5.0		105.0	71	124				
Methyl ethyl ketone	52	10	50		103.0	56	143				
Methylene chloride	5.0	0.50	5.0		101.0	74	124				
Styrene	5.3	0.50	5.0		106.0	78	123				
1,1,1,2-Tetrachloroethane	5.0	0.50	5.0		100.0	78	124				
1,1,2,2-Tetrachloroethane	5.1	0.50	5.0		101.0	71	121				
Tetrachloroethene	5.0	0.50	5.0		100.0	74	129				
Toluene	5.2	0.50	5.0		105.0	80	121				
1,1,1-Trichloroethane	5.1	0.50	5.0		102.0	74	131				
1,1,2-Trichloroethane	5.3	0.50	5.0		105.0	80	119				
Trichloroethene	5.1	0.50	5.0		102.0	79	123				
Trichlorofluoromethane	4.5	0.50	5.0		90.0	65	141				
1,2,3-Trichloropropane	4.9	0.50	5.0		97.0	73	125				
Vinyl chloride	4.7	0.50	5.0		93.0	58	137				
m+p-Xylenes	10	0.50	10		100.0	80	121				
o-Xylene	5.2	0.50	5.0		104.0	78	122				
Xylenes, Total	15	0.50	15		101.0	79	121				
Surr: 1,2-Dichloroethane-d4	11	0.50	10		113.0	81	118				
Surr: Dibromofluoromethane	11	0.50	10		109.0	80	119				
Surr: p-Bromofluorobenzene	11	0.50	10		108.0	85	114				
Surr: Toluene-d8	11	0.50	10		110.0	89	112				

Associated Samples: **B22011227-001F, B22011227-002A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 21 **SampType:** Sample Matrix Spike **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 19:20 **Prep Date:**
Lab ID: B22011136-001FMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	4.9	0.50	5.0	0.0	97.0	79	120				
Bromobenzene	4.9	0.50	5.0	0.0	97.0	80	120				
Bromochloromethane	4.7	0.50	5.0	0.0	94.0	78	123				
Bromodichloromethane	5.0	0.50	5.0	0.0	100.0	79	125				
Bromoform	4.8	0.50	5.0	0.0	95.0	66	130				
Carbon tetrachloride	4.9	0.50	5.0	0.0	99.0	72	136				
Chlorobenzene	5.1	0.50	5.0	0.0	102.0	82	118				
Chlorodibromomethane	4.8	0.50	5.0	0.0	95.0	74	126				
Chloroethane	4.7	0.50	5.0	0.0	94.0	60	138				
Chloroform	4.6	0.50	5.0	0.0	92.0	79	124				
Chloromethane	4.6	0.50	5.0	0.0	91.0	50	139				
1,2-Dibromoethane	5.0	0.50	5.0	0.0	100.0	78	122				
2-Chlorotoluene	4.9	0.50	5.0	0.0	98.0	79	122				
Dibromomethane	4.9	0.50	5.0	0.0	97.0	79	123				
1,2-Dichlorobenzene	4.8	0.50	5.0	0.0	96.0	80	119				
4-Chlorotoluene	5.0	0.50	5.0	0.0	101.0	78	122				
1,3-Dichlorobenzene	5.0	0.50	5.0	0.0	99.0	80	119				
1,4-Dichlorobenzene	4.8	0.50	5.0	0.0	96.0	79	118				
Dichlorodifluoromethane	4.6	0.50	5.0	0.0	91.0	32	152				
1,1-Dichloroethane	5.1	0.50	5.0	0.0	101.0	77	125				
1,2-Dichloroethane	4.6	0.50	5.0	0.0	93.0	73	128				
1,1-Dichloroethene	4.9	0.50	5.0	0.0	97.0	71	131				
cis-1,2-Dichloroethene	5.0	0.50	5.0	0.0	99.0	78	123				
trans-1,2-Dichloroethene	4.9	0.50	5.0	0.0	97.0	75	124				
1,2-Dichloropropane	4.9	0.50	5.0	0.0	99.0	78	122				
1,3-Dichloropropane	4.7	0.50	5.0	0.0	94.0	80	119				
2,2-Dichloropropane	4.6	0.50	5.0	0.0	92.0	60	139				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 21 **SampType:** Sample Matrix Spike **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 19:20 **Prep Date:**
Lab ID: B22011136-001FMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	4.7	0.50	5.0	0.0	93.0	79	125				
cis-1,3-Dichloropropene	4.6	0.50	5.0	0.0	92.0	75	124				
trans-1,3-Dichloropropene	5.0	0.50	5.0	0.0	101.0	73	127				
Ethylbenzene	4.9	0.50	5.0	0.0	99.0	79	121				
Methyl tert-butyl ether (MTBE)	4.9	0.50	5.0	0.0	98.0	71	124				
Methyl ethyl ketone	51	10	50	0.0	103.0	56	143				
Methylene chloride	4.7	0.50	5.0	0.0	94.0	74	124				
Styrene	4.6	0.50	5.0	0.0	91.0	78	123				
1,1,1,2-Tetrachloroethane	4.9	0.50	5.0	0.0	99.0	78	124				
1,1,2,2-Tetrachloroethane	4.8	0.50	5.0	0.0	96.0	71	121				
Tetrachloroethene	4.9	0.50	5.0	0.0	98.0	74	129				
Toluene	5.1	0.50	5.0	0.0	102.0	80	121				
1,1,1-Trichloroethane	4.8	0.50	5.0	0.0	96.0	74	131				
1,1,2-Trichloroethane	5.0	0.50	5.0	0.0	99.0	80	119				
Trichloroethene	5.0	0.50	5.0	0.0	100.0	79	123				
Trichlorofluoromethane	5.0	0.50	5.0	0.0	101.0	65	141				
1,2,3-Trichloropropane	4.6	0.50	5.0	0.0	92.0	73	125				
Vinyl chloride	4.7	0.50	5.0	0.0	94.0	58	137				
m+p-Xylenes	9.7	0.50	10	0.0	97.0	80	121				
o-Xylene	5.0	0.50	5.0	0.0	100.0	78	122				
Xylenes, Total	15	0.50	15	0.0	98.0	79	121				
Surr: 1,2-Dichloroethane-d4	9.9	0.50	10	0.0	99.0	81	118				
Surr: Dibromofluoromethane	9.8	0.50	10	0.0	98.0	80	119				
Surr: p-Bromofluorobenzene	9.7	0.50	10	0.0	97.0	85	114				
Surr: Toluene-d8	10	0.50	10	0.0	102.0	89	112				

Associated Samples: **B22011227-001F, B22011227-002A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 22 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 19:47 **Prep Date:**
Lab ID: B22011136-001FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.2	0.50	5.0	0.0	104.0	79	120	4.9	7.1	20.0	
Bromobenzene	5.3	0.50	5.0	0.0	106.0	80	120	4.9	9.2	20.0	
Bromochloromethane	5.0	0.50	5.0	0.0	100.0	78	123	4.7	6.2	20.0	
Bromodichloromethane	5.1	0.50	5.0	0.0	102.0	79	125	5.0	1.8	20.0	
Bromoform	5.0	0.50	5.0	0.0	100.0	66	130	4.8	4.7	20.0	
Carbon tetrachloride	5.2	0.50	5.0	0.0	103.0	72	136	4.9	4.4	20.0	
Chlorobenzene	5.3	0.50	5.0	0.0	105.0	82	118	5.1	3.6	20.0	
Chlorodibromomethane	5.0	0.50	5.0	0.0	100.0	74	126	4.8	5.2	20.0	
Chloroethane	5.1	0.50	5.0	0.0	102.0	60	138	4.7	8.7	20.0	
Chloroform	4.9	0.50	5.0	0.0	98.0	79	124	4.6	5.9	20.0	
Chloromethane	4.7	0.50	5.0	0.0	94.0	50	139	4.6	3.1	20.0	
1,2-Dibromoethane	5.1	0.50	5.0	0.0	102.0	78	122	5.0	1.5	20.0	
2-Chlorotoluene	5.4	0.50	5.0	0.0	107.0	79	122	4.9	9.2	20.0	
Dibromomethane	5.1	0.50	5.0	0.0	102.0	79	123	4.9	5.1	20.0	
1,2-Dichlorobenzene	5.2	0.50	5.0	0.0	104.0	80	119	4.8	7.9	20.0	
4-Chlorotoluene	5.4	0.50	5.0	0.0	108.0	78	122	5.0	7.2	20.0	
1,3-Dichlorobenzene	5.3	0.50	5.0	0.0	105.0	80	119	5.0	5.6	20.0	
1,4-Dichlorobenzene	5.3	0.50	5.0	0.0	105.0	79	118	4.8	9.1	20.0	
Dichlorodifluoromethane	4.7	0.50	5.0	0.0	93.0	32	152	4.6	2.0	20.0	
1,1-Dichloroethane	5.3	0.50	5.0	0.0	107.0	77	125	5.1	5.4	20.0	
1,2-Dichloroethane	4.9	0.50	5.0	0.0	98.0	73	128	4.6	5.2	20.0	
1,1-Dichloroethene	5.2	0.50	5.0	0.0	105.0	71	131	4.9	7.1	20.0	
cis-1,2-Dichloroethene	5.3	0.50	5.0	0.0	106.0	78	123	5.0	6.7	20.0	
trans-1,2-Dichloroethene	5.1	0.50	5.0	0.0	101.0	75	124	4.9	4.1	20.0	
1,2-Dichloropropane	5.2	0.50	5.0	0.0	103.0	78	122	4.9	4.5	20.0	
1,3-Dichloropropane	5.0	0.50	5.0	0.0	99.0	80	119	4.7	5.3	20.0	
2,2-Dichloropropane	5.0	0.50	5.0	0.0	100.0	60	139	4.6	7.9	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 22 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 19:47 **Prep Date:**
Lab ID: B22011136-001FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	5.0	0.50	5.0	0.0	100.0	79	125	4.7	7.0	20.0	
cis-1,3-Dichloropropene	4.8	0.50	5.0	0.0	96.0	75	124	4.6	4.0	20.0	
trans-1,3-Dichloropropene	5.3	0.50	5.0	0.0	106.0	73	127	5.0	5.2	20.0	
Ethylbenzene	5.2	0.50	5.0	0.0	104.0	79	121	4.9	5.4	20.0	
Methyl tert-butyl ether (MTBE)	5.3	0.50	5.0	0.0	106.0	71	124	4.9	8.6	20.0	
Methyl ethyl ketone	53	10	50	0.0	105.0	56	143	51	2.4	20.0	
Methylene chloride	4.9	0.50	5.0	0.0	97.0	74	124	4.7	4.1	20.0	
Styrene	5.1	0.50	5.0	0.0	101.0	78	123	4.6	10.0	20.0	
1,1,1,2-Tetrachloroethane	5.2	0.50	5.0	0.0	104.0	78	124	4.9	5.3	20.0	
1,1,2,2-Tetrachloroethane	5.1	0.50	5.0	0.0	103.0	71	121	4.8	6.9	20.0	
Tetrachloroethene	5.2	0.50	5.0	0.0	104.0	74	129	4.9	5.9	20.0	
Toluene	5.3	0.50	5.0	0.0	106.0	80	121	5.1	3.4	20.0	
1,1,1-Trichloroethane	5.2	0.50	5.0	0.0	103.0	74	131	4.8	7.4	20.0	
1,1,2-Trichloroethane	5.2	0.50	5.0	0.0	104.0	80	119	5.0	4.7	20.0	
Trichloroethene	5.3	0.50	5.0	0.0	105.0	79	123	5.0	4.9	20.0	
Trichlorofluoromethane	5.4	0.50	5.0	0.0	108.0	65	141	5.0	7.2	20.0	
1,2,3-Trichloropropane	4.7	0.50	5.0	0.0	94.0	73	125	4.6	1.9	20.0	
Vinyl chloride	5.0	0.50	5.0	0.0	100.0	58	137	4.7	5.7	20.0	
m+p-Xylenes	10	0.50	10	0.0	101.0	80	121	9.7	4.8	20.0	
o-Xylene	5.2	0.50	5.0	0.0	104.0	78	122	5.0	4.0	20.0	
Xylenes, Total	15	0.50	15	0.0	102.0	79	121	15	4.5	20.0	
Surr: 1,2-Dichloroethane-d4	11	0.50	10	0.0	107.0	81	118	0.0			
Surr: Dibromofluoromethane	10	0.50	10	0.0	103.0	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: **B22011227-001F, B22011227-002A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 09:51 **Prep Date:**
Lab ID: CCV012422_ **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	80	120				
Bromobenzene	4.8	0.50	5.0		96.0	80	120				
Bromochloromethane	4.8	0.50	5.0		96.0	80	120				
Bromodichloromethane	4.7	0.50	5.0		94.0	80	120				
Bromoform	4.7	0.50	5.0		93.0	80	120				
Carbon tetrachloride	4.7	0.50	5.0		95.0	80	120				
Chlorobenzene	4.8	0.50	5.0		95.0	80	120				
Chlorodibromomethane	4.8	0.50	5.0		96.0	80	120				
Chloroethane	4.5	0.50	5.0		90.0	80	120				
Chloroform	4.6	0.50	5.0		93.0	80	120				
Chloromethane	5.1	0.50	5.0		102.0	80	120				
1,2-Dibromoethane	4.8	0.50	5.0		95.0	80	120				
2-Chlorotoluene	4.9	0.50	5.0		98.0	80	120				
Dibromomethane	4.8	0.50	5.0		96.0	80	120				
1,2-Dichlorobenzene	4.8	0.50	5.0		96.0	80	120				
4-Chlorotoluene	5.0	0.50	5.0		100.0	80	120				
1,3-Dichlorobenzene	4.8	0.50	5.0		96.0	80	120				
1,4-Dichlorobenzene	4.8	0.50	5.0		96.0	80	120				
Dichlorodifluoromethane	4.8	0.50	5.0		96.0	80	120				
1,1-Dichloroethane	4.8	0.50	5.0		96.0	80	120				
1,2-Dichloroethane	4.8	0.50	5.0		97.0	80	120				
1,1-Dichloroethene	4.6	0.50	5.0		92.0	80	120				
cis-1,2-Dichloroethene	4.8	0.50	5.0		95.0	80	120				
trans-1,2-Dichloroethene	4.7	0.50	5.0		94.0	80	120				
1,2-Dichloropropane	4.7	0.50	5.0		93.0	80	120				
1,3-Dichloropropane	4.8	0.50	5.0		95.0	80	120				
2,2-Dichloropropane	5.0	0.50	5.0		101.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 09:51 **Prep Date:**
Lab ID: CCV012422_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	4.8	0.50	5.0		97.0	80	120				
cis-1,3-Dichloropropene	4.8	0.50	5.0		96.0	80	120				
trans-1,3-Dichloropropene	4.9	0.50	5.0		98.0	80	120				
Ethylbenzene	4.8	0.50	5.0		96.0	80	120				
Methyl tert-butyl ether (MTBE)	5.1	0.50	5.0		102.0	80	120				
Methyl ethyl ketone	49	10	50		97.0	80	120				
Methylene chloride	4.7	0.50	5.0		94.0	80	120				
Styrene	4.8	0.50	5.0		96.0	80	120				
1,1,1,2-Tetrachloroethane	4.8	0.50	5.0		95.0	80	120				
1,1,2,2-Tetrachloroethane	4.7	0.50	5.0		95.0	80	120				
Tetrachloroethene	4.7	0.50	5.0		93.0	80	120				
Toluene	4.8	0.50	5.0		97.0	80	120				
1,1,1-Trichloroethane	4.8	0.50	5.0		96.0	80	120				
1,1,2-Trichloroethane	4.8	0.50	5.0		97.0	80	120				
Trichloroethene	4.7	0.50	5.0		95.0	80	120				
Trichlorofluoromethane	4.9	0.50	5.0		98.0	80	120				
1,2,3-Trichloropropane	4.7	0.50	5.0		94.0	80	120				
Vinyl chloride	5.1	0.50	5.0		102.0	80	120				
m+p-Xylenes	9.5	0.50	10		95.0	80	120				
o-Xylene	4.7	0.50	5.0		95.0	80	120				
Xylenes, Total	14	0.50	15		95.0	80	120				
Surr: 1,2-Dichloroethane-d4	11	0.50	10		109.0	80	120				
Surr: Dibromofluoromethane	11	0.50	10		106.0	80	120				
Surr: p-Bromofluorobenzene	10	0.50	10		103.0	80	120				
Surr: Toluene-d8	11	0.50	10		107.0	80	120				

Associated Samples: **B22011227-001F, B22011227-002A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 20:42 **Prep Date:**
Lab ID: CCV012422_Closing **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		100.0	50	150				
Bromobenzene	5.1	0.50	5.0		101.0	50	150				
Bromochloromethane	4.9	0.50	5.0		97.0	50	150				
Bromodichloromethane	4.9	0.50	5.0		99.0	50	150				
Bromoform	4.8	0.50	5.0		95.0	50	150				
Carbon tetrachloride	5.1	0.50	5.0		101.0	50	150				
Chlorobenzene	5.1	0.50	5.0		102.0	50	150				
Chlorodibromomethane	5.0	0.50	5.0		100.0	50	150				
Chloroethane	4.6	0.50	5.0		91.0	50	150				
Chloroform	4.9	0.50	5.0		97.0	50	150				
Chloromethane	4.8	0.50	5.0		96.0	50	150				
1,2-Dibromoethane	5.0	0.50	5.0		100.0	50	150				
2-Chlorotoluene	5.1	0.50	5.0		103.0	50	150				
Dibromomethane	5.0	0.50	5.0		101.0	50	150				
1,2-Dichlorobenzene	5.0	0.50	5.0		101.0	50	150				
4-Chlorotoluene	5.1	0.50	5.0		103.0	50	150				
1,3-Dichlorobenzene	5.0	0.50	5.0		100.0	50	150				
1,4-Dichlorobenzene	5.0	0.50	5.0		100.0	50	150				
Dichlorodifluoromethane	4.7	0.50	5.0		93.0	50	150				
1,1-Dichloroethane	5.0	0.50	5.0		101.0	50	150				
1,2-Dichloroethane	4.8	0.50	5.0		97.0	50	150				
1,1-Dichloroethene	5.0	0.50	5.0		100.0	50	150				
cis-1,2-Dichloroethene	5.0	0.50	5.0		101.0	50	150				
trans-1,2-Dichloroethene	4.8	0.50	5.0		96.0	50	150				
1,2-Dichloropropane	5.1	0.50	5.0		103.0	50	150				
1,3-Dichloropropane	5.0	0.50	5.0		101.0	50	150				
2,2-Dichloropropane	4.7	0.50	5.0		94.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: VOA5975C.I_220124A: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373742
Method: SW8260B **Analysis Date:** 01/24/2022 20:42 **Prep Date:**
Lab ID: CCV012422_Closing **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	5.1	0.50	5.0		102.0	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		101.0	50	150				
Ethylbenzene	5.1	0.50	5.0		102.0	50	150				
Methyl tert-butyl ether (MTBE)	4.8	0.50	5.0		96.0	50	150				
Methyl ethyl ketone	46	10	50		92.0	50	150				
Methylene chloride	4.7	0.50	5.0		95.0	50	150				
Styrene	5.2	0.50	5.0		103.0	50	150				
1,1,1,2-Tetrachloroethane	5.2	0.50	5.0		104.0	50	150				
1,1,2,2-Tetrachloroethane	4.9	0.50	5.0		97.0	50	150				
Tetrachloroethene	5.2	0.50	5.0		105.0	50	150				
Toluene	5.3	0.50	5.0		105.0	50	150				
1,1,1-Trichloroethane	5.0	0.50	5.0		100.0	50	150				
1,1,2-Trichloroethane	5.1	0.50	5.0		101.0	50	150				
Trichloroethene	5.1	0.50	5.0		102.0	50	150				
Trichlorofluoromethane	4.9	0.50	5.0		97.0	50	150				
1,2,3-Trichloropropane	4.7	0.50	5.0		95.0	50	150				
Vinyl chloride	4.7	0.50	5.0		93.0	50	150				
m+p-Xylenes	10	0.50	10		103.0	50	150				
o-Xylene	5.1	0.50	5.0		102.0	50	150				
Xylenes, Total	15	0.50	15		103.0	50	150				
Surr: 1,2-Dichloroethane-d4	10	0.50	10		103.0	50	150				
Surr: Dibromofluoromethane	10	0.50	10		101.0	50	150				
Surr: p-Bromofluorobenzene	10	0.50	10		102.0	50	150				
Surr: Toluene-d8	11	0.50	10		107.0	50	150				

Associated Samples: **B22011227-001F, B22011227-002A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: GECD.I_220121A: 35 **SampType:** Method Blank **Batch ID:** 163129
Method: SW8011 **Analysis Date:** 01/22/2022 05:36 **Prep Date:** 01/21/2022 07:48
Lab ID: MB-163129 **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	0.094	0.020	0.10		94.0	70	130				

Associated Samples: **B22011227-001H, B22011227-004A**

Run ID: Run Order: GECD.I_220121A: 36 **SampType:** Laboratory Control Sample **Batch ID:** 163129
Method: SW8011 **Analysis Date:** 01/22/2022 05:56 **Prep Date:** 01/21/2022 07:48
Lab ID: LCS-163129 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.24	0.010	0.25		94.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.093	0.020	0.10		93.0	70	130				

Associated Samples: **B22011227-001H, B22011227-004A**

Run ID: Run Order: GECD.I_220121A: 37 **SampType:** Laboratory Control Sample **Batch ID:** 163129
Method: SW8011 **Analysis Date:** 01/22/2022 06:16 **Prep Date:** 01/21/2022 07:48
Lab ID: LCS1-163129 **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		100.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.093	0.020	0.10		93.0	70	130				

Associated Samples: **B22011227-001H, B22011227-004A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: GECD.I_220121A: 50 **SampType:** Sample Matrix Spike **Batch ID:** 163129
Method: SW8011 **Analysis Date:** 01/22/2022 10:55 **Prep Date:** 01/21/2022 07:48
Lab ID: B22011131-001HMS **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.23	0.010	0.24	0.0	93.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.085	0.020	0.097	0.0	88.0	70	130				

Associated Samples: **B22011227-001H, B22011227-004A**

Run ID: Run Order: GECD.I_220121A: 51 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 163129
Method: SW8011 **Analysis Date:** 01/22/2022 11:15 **Prep Date:** 01/21/2022 07:48
Lab ID: B22011131-001HMSD **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.22	0.010	0.24	0.0	92.0	60	140	0.23	1.6	20.0	
Surr: 1,1,1,2-Tetrachloroethane	0.088	0.020	0.097	0.0	91.0	70	130	0.0			

Associated Samples: **B22011227-001H, B22011227-004A**

Run ID: Run Order: GECD.I_220121A: 52 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 163129
Method: SW8011 **Analysis Date:** 01/22/2022 11:55 **Prep Date:** 01/21/2022 07:48
Lab ID: CK5-163129 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.39	0.010	0.40		96.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.41	0.020	0.40		104.0	80	120				

Associated Samples: **B22011227-001H, B22011227-004A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: GECD.I_220121A: 63 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 163129
Method: SW8011 **Analysis Date:** 01/22/2022 16:53 **Prep Date:** 01/21/2022 07:48
Lab ID: CK3-163129 **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	0.090	0.020	0.10		90.0	80	120				

Associated Samples: **B22011227-001H, B22011227-004A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: PE 1_220120A: 47 **SampType:** Method Blank **Batch ID:** R373498
Method: SW8015C **Analysis Date:** 01/21/2022 20:00 **Prep Date:**
Lab ID: MBLK_0120PE163r **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	19	1.0	25		74.0	70	130				

Associated Samples: **B22011227-001G, B22011227-003A**

Run ID: Run Order: PE 1_220120A: 46 **SampType:** Laboratory Control Sample **Batch ID:** R373498
Method: SW8015C **Analysis Date:** 01/21/2022 19:25 **Prep Date:**
Lab ID: LCS_0120PE162r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	147	20	170		86.0	78	122				
Total Purgeable Hydrocarbons	173	20	200		87.0	70	130				
Surr: Trifluorotoluene	21	1.0	25		84.0	70	130				

Associated Samples: **B22011227-001G, B22011227-003A**

Run ID: Run Order: PE 1_220120A: 42 **SampType:** Sample Matrix Spike **Batch ID:** R373498
Method: SW8015C **Analysis Date:** 01/21/2022 16:33 **Prep Date:**
Lab ID: B22011136-001GMS **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	89.0	78	122				
Total Purgeable Hydrocarbons	180	20	200	0.0	90.0	70	130				
Surr: Trifluorotoluene	21	1.0	25	0.0	83.0	70	130				

Associated Samples: **B22011227-001G, B22011227-003A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: PE 1_220120A: 43 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373498
Method: SW8015C **Analysis Date:** 01/21/2022 17:08 **Prep Date:**
Lab ID: B22011136-001GMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	154	20	170	0.0	90.0	78	122	152	1.3	20.0	
Total Purgeable Hydrocarbons	181	20	200	0.0	91.0	70	130	180	1.0	20.0	
Surr: Trifluorotoluene	22	1.0	25	0.0	86.0	70	130	0.0			

Associated Samples: **B22011227-001G, B22011227-003A**

Run ID: Run Order: GCFID-HP5-B_220122A: 4 **SampType:** Method Blank **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/22/2022 15:56 **Prep Date:** 01/19/2022 16:29
Lab ID: MB-163074 **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	0.19	0.0020	0.20		95.0	56	125				
Surr: n-Triacontane	0.099	0.0020	0.10		99.0	50	150				

Associated Samples: **B22011227-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: GCFID-HP5-B_220124B: 13 **SampType:** Method Blank **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/25/2022 08:02 **Prep Date:** 01/19/2022 16:29
Lab ID: MB-163074 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	ND	0.15									
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	0.15									
Total Extractable Hydrocarbons (SGT)	ND	0.15									
Surr: o-Terphenyl (SGT)	0.16	0.0020	0.20		79.0	56	125				
Surr: n-Triacontane (SGT)	0.077	0.0020	0.10		77.0	50	150				

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220122A: 3 **SampType:** Laboratory Control Sample **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/22/2022 15:13 **Prep Date:** 01/19/2022 16:29
Lab ID: LCS-163074 **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)	12	0.30	15		83.0	36	132				
Total Extractable Hydrocarbons	13	0.30	15		89.0	60	132				
Surr: o-Terphenyl	0.19	0.0020	0.20		97.0	56	125				

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220122A: 24 **SampType:** Laboratory Control Sample **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/23/2022 16:52 **Prep Date:** 01/19/2022 16:30
Lab ID: LCS-163074-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				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: GCFID-HP5-B_220122A: 24 **SampType:** Laboratory Control Sample **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/23/2022 16:52 **Prep Date:** 01/19/2022 16:30
Lab ID: LCS-163074-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: n-Triacontane	0.098	0.0020	0.10		98.0	50	150				

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220124B: 3 **SampType:** Laboratory Control Sample **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/24/2022 19:57 **Prep Date:** 01/19/2022 16:29
Lab ID: LCS-163074 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	12	0.30	15		78.0	36	132				
Total Extractable Hydrocarbons (SGT)	12	0.30	15		83.0	60	132				
Surr: o-Terphenyl (SGT)	0.19	0.0020	0.20		93.0	56	125				

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220124B: 9 **SampType:** Laboratory Control Sample **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/25/2022 03:03 **Prep Date:** 01/19/2022 16:30
Lab ID: LCS-163074-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	4.8	0.30	5.0		95.0	41	113				
Surr: n-Triacontane (SGT)	0.089	0.0020	0.10		89.0	50	150				

Associated Samples: **B22011227-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: GCFID-HP5-B_220122A: 10 **SampType:** Sample Matrix Spike **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/22/2022 20:56 **Prep Date:** 01/19/2022 16:30
Lab ID: B22011136-001DMS **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)	12	0.30	15	0.041	81.0	36	132				
Total Extractable Hydrocarbons	13	0.30	15	0.13	86.0	60	132				
Surr: o-Terphenyl	0.18	0.0020	0.20	0.0	91.0	56	125				

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220122A: 11 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/22/2022 21:39 **Prep Date:** 01/19/2022 16:30
Lab ID: B22011136-001DMSD **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)	13	0.30	15	0.041	86.0	36	132	12	6.9	20.0	
Total Extractable Hydrocarbons	14	0.30	15	0.13	92.0	60	132	13	7.2	20.0	
Surr: o-Terphenyl	0.19	0.0020	0.20	0.0	97.0	56	125	0.0			

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220122A: 25 **SampType:** Sample Matrix Spike **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/23/2022 18:18 **Prep Date:** 01/19/2022 16:30
Lab ID: B22011136-001DMS-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)	4.8	0.30	5.0	0.13	93.0	41	113				
Surr: n-Triacontane	0.094	0.0020	0.10	0.0	94.0	50	150				

Associated Samples: **B22011227-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: GCFID-HP5-B_220122A: 26 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/23/2022 19:01 **Prep Date:** 01/19/2022 16:30
Lab ID: B22011136-001DMSD-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)	4.9	0.30	4.9	0.13	98.0	41	113	4.8	1.9	20.0	
Surr: n-Triacontane	0.088	0.0020	0.097	0.0	91.0	50	150	0.0			

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220124B: 5 **SampType:** Sample Matrix Spike **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/24/2022 22:47 **Prep Date:** 01/19/2022 16:30
Lab ID: B22011136-001DMS **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	11	0.30	15	0.0	71.0	36	132				
Total Extractable Hydrocarbons (SGT)	11	0.30	15	0.0	76.0	60	132				
Surr: o-Terphenyl (SGT)	0.16	0.0020	0.20	0.0	82.0	56	125				

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220124B: 6 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/24/2022 23:30 **Prep Date:** 01/19/2022 16:30
Lab ID: B22011136-001DMSD **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	11	0.30	15	0.0	77.0	36	132	11	7.6	20.0	
Total Extractable Hydrocarbons (SGT)	12	0.30	15	0.0	82.0	60	132	11	7.2	20.0	
Surr: o-Terphenyl (SGT)	0.17	0.0020	0.20	0.0	88.0	56	125	0.0			

Associated Samples: **B22011227-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: GCFID-HP5-B_220124B: 7 **SampType:** Sample Matrix Spike **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/25/2022 00:13 **Prep Date:** 01/19/2022 16:30
Lab ID: B22011136-001DMS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	4.8	0.30	5.0	0.0	96.0	41	113				
Surr: n-Triacontane (SGT)	0.088	0.0020	0.10	0.0	88.0	50	150				

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220124B: 8 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 163074
Method: SW8015C **Analysis Date:** 01/25/2022 01:38 **Prep Date:** 01/19/2022 16:30
Lab ID: B22011136-001DMSD-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	5.3	0.30	4.9	0.0	109.0	41	113	4.8	9.7	20.0	
Surr: n-Triacontane (SGT)	0.096	0.0020	0.097	0.0	99.0	50	150	0.0			

Associated Samples: **B22011227-001D**

Run ID: Run Order: PE 1_220120A: 29 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373498
Method: SW8015C **Analysis Date:** 01/21/2022 07:59 **Prep Date:**
Lab ID: CCV_0120PE142r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	169	20	168		101.0	80	120				
Total Purgeable Hydrocarbons	203	20	200		101.0	80	120				
Surr: Trifluorotoluene	22	1.0	25		90.0	80	120				

Associated Samples: **B22011227-001G, B22011227-003A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: PE 1_220120A: 45 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373498
Method: SW8015C **Analysis Date:** 01/21/2022 18:51 **Prep Date:**
Lab ID: CCV_0120PE161r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	181	20	168		107.0	80	120				
Total Purgeable Hydrocarbons	218	20	200		109.0	80	120				
Surr: Trifluorotoluene	22	1.0	25		89.0	80	120				

Associated Samples: **B22011227-001G, B22011227-003A**

Run ID: Run Order: PE 1_220120A: 57 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373498
Method: SW8015C **Analysis Date:** 01/22/2022 05:43 **Prep Date:**
Lab ID: CCV_0120PE180r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	174	20	168		104.0	80	120				
Total Purgeable Hydrocarbons	209	20	200		105.0	80	120				
Surr: Trifluorotoluene	22	1.0	25		89.0	80	120				

Associated Samples: **B22011227-001G, B22011227-003A**

Run ID: Run Order: GCFID-HP5-B_220124A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373655
Method: SW8015C **Analysis Date:** 01/24/2022 09:37 **Prep Date:**
Lab ID: CCV_0124HP503r **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		96.0	80	120				
Total Extractable Hydrocarbons	15	0.30	15		99.0	80	120				
Surr: o-Terphenyl	0.21	0.0020	0.20		103.0	80	120				

Associated Samples: **B22011227-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: GCFID-HP5-B_220124A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373655
Method: SW8015C **Analysis Date:** 01/24/2022 10:43 **Prep Date:**
Lab ID: CCV_0124HP504r-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		91.0	80	120				
Surr: n-Triacontane	0.20	0.0020	0.20		102.0	80	120				

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220124A: 8 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373655
Method: SW8015C **Analysis Date:** 01/24/2022 17:06 **Prep Date:**
Lab ID: CCV_0124HP513r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.7	0.30	5.0		95.0	80	120				
Surr: n-Triacontane	0.21	0.0020	0.20		103.0	80	120				

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220124A: 9 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373655
Method: SW8015C **Analysis Date:** 01/24/2022 17:49 **Prep Date:**
Lab ID: CCV_0124HP514r **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		97.0	80	120				
Total Extractable Hydrocarbons	15	0.30	15		100.0	80	120				
Surr: o-Terphenyl	0.21	0.0020	0.20		106.0	80	120				

Associated Samples: **B22011227-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: GCFID-HP5-B_220124B: 20 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373703
Method: SW8015C **Analysis Date:** 01/25/2022 14:24 **Prep Date:**
Lab ID: CCV_0124HP543r-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		89.0	80	120				
Surr: n-Triacontane	0.20	0.0020	0.20		100.0	80	120				

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220124B: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373703
Method: SW8015C **Analysis Date:** 01/25/2022 15:07 **Prep Date:**
Lab ID: CCV_0124HP544r **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)	13	0.30	15		89.0	80	120				
Total Extractable Hydrocarbons	14	0.30	15		92.0	80	120				
Surr: o-Terphenyl	0.18	0.0020	0.20		92.0	80	120				

Associated Samples: **B22011227-001D**

Run ID: Run Order: GCFID-HP5-B_220124B: 26 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373703
Method: SW8015C **Analysis Date:** 01/25/2022 21:31 **Prep Date:**
Lab ID: CCV_0124HP553r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.4	0.30	5.0		88.0	80	120				
Surr: n-Triacontane	0.20	0.0020	0.20		99.0	80	120				

Associated Samples: **B22011227-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: GCFID-HP5-B_220124B: 27 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373703
Method: SW8015C **Analysis Date:** 01/25/2022 22:14 **Prep Date:**
Lab ID: CCV_0124HP554r **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)	13	0.30	15		88.0	80	120				
Total Extractable Hydrocarbons	14	0.30	15		91.0	80	120				
Surr: o-Terphenyl	0.18	0.0020	0.20		90.0	80	120				

Associated Samples: **B22011227-001D**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: FID-HEADSPACE_220121A: 4 **SampType:** Method Blank **Batch ID:** R373537
Method: SW8015M **Analysis Date:** 01/21/2022 09:43 **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: **B22011227-001I, B22011227-005A**

Run ID: Run Order: FID-HEADSPACE_220121A: 2 **SampType:** Laboratory Control Sample **Batch ID:** R373537
Method: SW8015M **Analysis Date:** 01/21/2022 08:39 **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: **B22011227-001I, B22011227-005A**

Run ID: Run Order: FID-HEADSPACE_220121A: 3 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** R373537
Method: SW8015M **Analysis Date:** 01/21/2022 08:43 **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	0.2	20.0	

Associated Samples: **B22011227-001I, B22011227-005A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: FID-HEADSPACE_220121A: 6 **SampType:** Sample Duplicate **Batch ID:** R373537
Method: SW8015M **Analysis Date:** 01/21/2022 10:11 **Prep Date:**
Lab ID: B22011134-001IDUP **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	0.56	0.16			0.0			0.56	0.0	20.0	

Associated Samples: **B22011227-001I, B22011227-005A**

Run ID: Run Order: FID-HEADSPACE_220121A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373537
Method: SW8015M **Analysis Date:** 01/21/2022 08:35 **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	95	2.0	100		95.0	85	115				

Associated Samples: **B22011227-001I, B22011227-005A**

Run ID: Run Order: FID-HEADSPACE_220121A: 20 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373537
Method: SW8015M **Analysis Date:** 01/21/2022 11:50 **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	95	2.0	100		95.0	85	115				

Associated Samples: **B22011227-001I, B22011227-005A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 12 **SampType:** Method Blank **Batch ID:** 163174
Method: SW8270C **Analysis Date:** 02/02/2022 11:56 **Prep Date:** 01/24/2022 11:48
Lab ID: MB-163174 **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									
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-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									
Azobenzene	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									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 12 **SampType:** Method Blank **Batch ID:** 163174
Method: SW8270C **Analysis Date:** 02/02/2022 11:56 **Prep Date:** 01/24/2022 11:48
Lab ID: MB-163174 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	ND	5.0									
Dimethyl phthalate	ND	5.0									
Di-n-butyl phthalate	ND	5.0									
Di-n-octyl phthalate	ND	5.0									
Hexachlorobenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Hexachlorocyclopentadiene	ND	5.0									
Hexachloroethane	ND	5.0									
Isophorone	ND	5.0									
m+p-Cresols	ND	5.0									
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									
Phenol	ND	5.0									
Pyridine	ND	5.0									
Surr: 2,4,6-Tribromophenol	185	5.0	200		93.0	43	140				
Surr: 2-Fluorobiphenyl	54	5.0	100		54.0	44	119				
Surr: 2-Fluorophenol	76	5.0	200		38.0	19	119				
Surr: Nitrobenzene-d5	66	5.0	100		66.0	44	120				
Surr: Phenol-d5	74	5.0	200		37.0	10	65				
Surr: Terphenyl-d14	91	5.0	100		91.0	50	134				

Associated Samples: **B22011227-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 13 **SampType:** Laboratory Control Sample **Batch ID:** 163174
Method: SW8270C **Analysis Date:** 02/02/2022 12:28 **Prep Date:** 01/24/2022 11:48
Lab ID: LCS-163174 **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	64	10	100		64.0	29	116				
1,2-Dichlorobenzene	60	10	100		60.0	32	111				
1,3-Dichlorobenzene	58	10	100		58.0	28	110				
1,4-Dichlorobenzene	57	10	100		57.0	29	112				
2,4,5-Trichlorophenol	84	10	100		84.0	53	123				
2,4,6-Trichlorophenol	87	10	100		87.0	50	125				
2,4-Dichlorophenol	73	10	100		73.0	47	121				
2,4-Dimethylphenol	58	10	100		58.0	31	124				
2,4-Dinitrophenol	62	10	100		62.0	23	142				
2,4-Dinitrotoluene	83	10	100		83.0	57	128				
2,6-Dinitrotoluene	93	10	100		93.0	50	118				
2-Chloronaphthalene	85	10	100		85.0	40	116				
2-Chlorophenol	62	10	100		62.0	38	117				
2-Nitrophenol	75	10	100		75.0	47	123				
3,3´-Dichlorobenzidine	76	10	100		76.0	27	129				
4,6-Dinitro-2-methylphenol	70	10	100		70.0	44	137				
4-Bromophenyl phenyl ether	80	10	100		80.0	55	124				
4-Chloro-3-methylphenol	85	10	100		85.0	52	119				
4-Chlorophenol	64	10	100		64.0	41	81				
4-Chlorophenyl phenyl ether	89	10	100		89.0	53	121				
4-Nitrophenol	40	10	100		40.0	15	36				S
Azobenzene	76	10	100		76.0	61	116				
bis(-2-chloroethoxy)Methane	85	10	100		85.0	48	120				
bis(-2-chloroethyl)Ether	73	10	100		73.0	43	118				
bis(2-chloroisopropyl)Ether	57	10	100		57.0	37	130				
bis(2-ethylhexyl)Phthalate	92	10	100		92.0	55	135				
Butylbenzylphthalate	91	10	100		91.0	53	134				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 13 **SampType:** Laboratory Control Sample **Batch ID:** 163174
Method: SW8270C **Analysis Date:** 02/02/2022 12:28 **Prep Date:** 01/24/2022 11:48
Lab ID: LCS-163174 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	100	10	100		100.0	56	125				
Dimethyl phthalate	89	10	100		89.0	45	127				
Di-n-butyl phthalate	97	10	100		97.0	59	127				
Di-n-octyl phthalate	89	10	100		89.0	51	140				
Hexachlorobenzene	78	10	100		78.0	53	125				
Hexachlorobutadiene	63	10	100		63.0	22	124				
Hexachlorocyclopentadiene	61	10	100		61.0	39	91				
Hexachloroethane	57	10	100		57.0	21	115				
Isophorone	73	10	100		73.0	42	124				
m+p-Cresols	69	10	100		69.0	29	110				
Nitrobenzene	74	10	100		74.0	45	121				
n-Nitrosodimethylamine	49	10	100		49.0	20	45				S
n-Nitroso-di-n-propylamine	83	10	100		83.0	49	119				
n-Nitrosodiphenylamine	79	10	100		79.0	51	123				
o-Cresol	69	10	100		69.0	30	117				
Pentachlorophenol	94	10	100		94.0	35	138				
Phenol	45	10	100		45.0	37	75				
Pyridine	32	10	100		32.0	16	45				
Surr: 2,4,6-Tribromophenol	200	10	200		100.0	43	140				
Surr: 2-Fluorobiphenyl	71	10	100		71.0	44	119				
Surr: 2-Fluorophenol	74	10	200		37.0	19	119				
Surr: Nitrobenzene-d5	71	10	100		71.0	44	120				
Surr: Phenol-d5	82	10	200		41.0	10	65				
Surr: Terphenyl-d14	88	10	100		88.0	50	134				

Associated Samples: **B22011227-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163174
Method: SW8270C **Analysis Date:** 02/02/2022 13:00 **Prep Date:** 01/24/2022 11:48
Lab ID: LCSD-163174 **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	64	14.0	20.0	
1,2-Dichlorobenzene	72	10	100		72.0	32	111	60	18.0	20.0	
1,3-Dichlorobenzene	70	10	100		70.0	28	110	58	18.0	20.0	
1,4-Dichlorobenzene	69	10	100		69.0	29	112	57	18.0	20.0	
2,4,5-Trichlorophenol	102	10	100		102.0	53	123	84	20.0	20.0	
2,4,6-Trichlorophenol	105	10	100		105.0	50	125	87	19.0	20.0	
2,4-Dichlorophenol	83	10	100		83.0	47	121	73	13.0	20.0	
2,4-Dimethylphenol	67	10	100		67.0	31	124	58	14.0	20.0	
2,4-Dinitrophenol	73	10	100		73.0	23	142	62	17.0	20.0	
2,4-Dinitrotoluene	104	10	100		104.0	57	128	83	23.0	20.0	R
2,6-Dinitrotoluene	105	10	100		105.0	50	118	93	13.0	20.0	
2-Chloronaphthalene	98	10	100		98.0	40	116	85	14.0	20.0	
2-Chlorophenol	79	10	100		79.0	38	117	62	24.0	20.0	R
2-Nitrophenol	87	10	100		87.0	47	123	75	14.0	20.0	
3,3´-Dichlorobenzidine	86	10	100		86.0	27	129	76	12.0	20.0	
4,6-Dinitro-2-methylphenol	79	10	100		79.0	44	137	70	11.0	20.0	
4-Bromophenyl phenyl ether	93	10	100		93.0	55	124	80	15.0	20.0	
4-Chloro-3-methylphenol	98	10	100		98.0	52	119	85	14.0	20.0	
4-Chlorophenol	77	10	100		77.0	41	81	64	19.0	20.0	
4-Chlorophenyl phenyl ether	104	10	100		104.0	53	121	89	15.0	20.0	
4-Nitrophenol	47	10	100		47.0	15	36	40	15.0	20.0	S
Azobenzene	89	10	100		89.0	61	116	76	16.0	20.0	
bis(-2-chloroethoxy)Methane	92	10	100		92.0	48	120	85	7.6	20.0	
bis(-2-chloroethyl)Ether	88	10	100		88.0	43	118	73	18.0	20.0	
bis(2-chloroisopropyl)Ether	70	10	100		70.0	37	130	57	21.0	20.0	R
bis(2-ethylhexyl)Phthalate	103	10	100		103.0	55	135	92	12.0	20.0	
Butylbenzylphthalate	107	10	100		107.0	53	134	91	15.0	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163174
Method: SW8270C **Analysis Date:** 02/02/2022 13:00 **Prep Date:** 01/24/2022 11:48
Lab ID: LCSD-163174 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	114	10	100		114.0	56	125	100	13.0	20.0	
Dimethyl phthalate	106	10	100		106.0	45	127	89	17.0	20.0	
Di-n-butyl phthalate	110	10	100		110.0	59	127	97	13.0	20.0	
Di-n-octyl phthalate	102	10	100		102.0	51	140	89	14.0	20.0	
Hexachlorobenzene	98	10	100		98.0	53	125	78	23.0	20.0	R
Hexachlorobutadiene	66	10	100		66.0	22	124	63	4.7	20.0	
Hexachlorocyclopentadiene	73	10	100		73.0	39	91	61	18.0	20.0	
Hexachloroethane	67	10	100		67.0	21	115	57	17.0	20.0	
Isophorone	86	10	100		86.0	42	124	73	16.0	20.0	
m+p-Cresols	83	10	100		83.0	29	110	69	19.0	20.0	
Nitrobenzene	87	10	100		87.0	45	121	74	17.0	20.0	
n-Nitrosodimethylamine	56	10	100		56.0	20	45	49	14.0	20.0	S
n-Nitroso-di-n-propylamine	102	10	100		102.0	49	119	83	21.0	20.0	R
n-Nitrosodiphenylamine	95	10	100		95.0	51	123	79	18.0	20.0	
o-Cresol	83	10	100		83.0	30	117	69	18.0	20.0	
Pentachlorophenol	119	10	100		119.0	35	138	94	23.0	20.0	R
Phenol	51	10	100		51.0	37	75	45	14.0	20.0	
Pyridine	37	10	100		37.0	16	45	32	15.0	20.0	
Surr: 2,4,6-Tribromophenol	239	10	200		120.0	43	140	0.0	0.0		
Surr: 2-Fluorobiphenyl	85	10	100		85.0	44	119	0.0	0.0		
Surr: 2-Fluorophenol	91	10	200		45.0	19	119	0.0	0.0		
Surr: Nitrobenzene-d5	82	10	100		82.0	44	120	0.0	0.0		
Surr: Phenol-d5	96	10	200		48.0	10	65	0.0	0.0		
Surr: Terphenyl-d14	102	10	100		102.0	50	134	0.0	0.0		

Associated Samples: **B22011227-001C**

- 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.

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 21 **SampType:** Sample Matrix Spike **Batch ID:** 163174
Method: SW8270C **Analysis Date:** 02/02/2022 16:45 **Prep Date:** 01/25/2022 08:25
Lab ID: B22011446-006CMS **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	63	10	103	0.0	61.0	29	116				
1,2-Dichlorobenzene	61	10	103	0.0	59.0	32	111				
1,3-Dichlorobenzene	59	10	103	0.0	57.0	28	110				
1,4-Dichlorobenzene	57	10	103	0.0	56.0	29	112				
2,4,5-Trichlorophenol	69	10	103	0.0	67.0	53	123				
2,4,6-Trichlorophenol	75	10	103	0.0	72.0	50	125				
2,4-Dichlorophenol	59	10	103	0.0	57.0	47	121				
2,4-Dimethylphenol	52	10	103	0.0	51.0	31	124				
2,4-Dinitrophenol	54	10	103	0.0	52.0	23	142				
2,4-Dinitrotoluene	78	10	103	0.0	75.0	57	128				
2,6-Dinitrotoluene	83	10	103	0.0	81.0	50	118				
2-Chloronaphthalene	78	10	103	0.0	76.0	40	116				
2-Chlorophenol	55	10	103	0.0	53.0	38	117				
2-Nitrophenol	64	10	103	0.0	62.0	47	123				
3,3´-Dichlorobenzidine	60	10	103	0.0	59.0	27	129				
4,6-Dinitro-2-methylphenol	64	10	103	0.0	62.0	44	137				
4-Bromophenyl phenyl ether	80	10	103	0.0	78.0	55	124				
4-Chloro-3-methylphenol	77	10	103	0.0	74.0	52	119				
4-Chlorophenol	53	10	103	0.0	51.0	41	81				
4-Chlorophenyl phenyl ether	86	10	103	0.0	83.0	53	121				
4-Nitrophenol	39	10	103	0.0	38.0	15	36				S
Azobenzene	78	10	103	0.0	75.0	61	116				
bis(-2-chloroethoxy)Methane	76	10	103	0.0	74.0	48	120				
bis(-2-chloroethyl)Ether	71	10	103	0.0	69.0	43	118				
bis(2-chloroisopropyl)Ether	55	10	103	0.0	54.0	37	130				
bis(2-ethylhexyl)Phthalate	79	10	103	0.0	77.0	55	135				
Butylbenzylphthalate	83	10	103	0.0	81.0	53	134				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 21 **SampType:** Sample Matrix Spike **Batch ID:** 163174
Method: SW8270C **Analysis Date:** 02/02/2022 16:45 **Prep Date:** 01/25/2022 08:25
Lab ID: B22011446-006CMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	97	10	103	0.0	94.0	56	125				
Dimethyl phthalate	85	10	103	0.0	82.0	45	127				
Di-n-butyl phthalate	94	10	103	0.0	91.0	59	127				
Di-n-octyl phthalate	82	10	103	0.0	79.0	51	140				
Hexachlorobenzene	80	10	103	0.0	78.0	53	125				
Hexachlorobutadiene	54	10	103	0.0	52.0	22	124				
Hexachlorocyclopentadiene	45	10	103	0.0	44.0	39	91				
Hexachloroethane	55	10	103	0.0	54.0	21	115				
Isophorone	66	10	103	0.0	65.0	42	124				
m+p-Cresols	59	10	103	0.0	57.0	29	110				
Nitrobenzene	74	10	103	0.0	72.0	45	121				
n-Nitrosodimethylamine	34	10	103	0.0	33.0	20	45				
n-Nitroso-di-n-propylamine	81	10	103	0.0	79.0	49	119				
n-Nitrosodiphenylamine	82	10	103	0.0	80.0	51	123				
o-Cresol	63	10	103	0.0	61.0	30	117				
Pentachlorophenol	93	10	103	0.0	90.0	35	138				
Phenol	35	10	103	0.0	34.0	37	75				S
Pyridine	25	10	103	0.0	24.0	16	45				
Surr: 2,4,6-Tribromophenol	190	10	206	0.0	92.0	43	140				
Surr: 2-Fluorobiphenyl	66	10	103	0.0	64.0	44	119				
Surr: 2-Fluorophenol	65	10	206	0.0	31.0	19	119				
Surr: Nitrobenzene-d5	69	10	103	0.0	67.0	44	120				
Surr: Phenol-d5	69	10	206	0.0	33.0	10	65				
Surr: Terphenyl-d14	85	10	103	0.0	83.0	50	134				

Associated Samples: **B22011227-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 24 **SampType:** Sample Matrix Spike **Batch ID:** 163174
Method: SW8270C **Analysis Date:** 02/02/2022 18:21 **Prep Date:** 01/25/2022 08:25
Lab ID: B22011446-012AMS **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	65	10	102	0.0	64.0	29	116				
1,2-Dichlorobenzene	60	10	102	0.0	59.0	32	111				
1,3-Dichlorobenzene	61	10	102	0.0	60.0	28	110				
1,4-Dichlorobenzene	59	10	102	0.0	58.0	29	112				
2,4,5-Trichlorophenol	73	10	102	0.0	72.0	53	123				
2,4,6-Trichlorophenol	72	10	102	0.0	71.0	50	125				
2,4-Dichlorophenol	70	10	102	0.0	69.0	47	121				
2,4-Dimethylphenol	54	10	102	0.0	53.0	31	124				
2,4-Dinitrophenol	57	10	102	0.0	56.0	23	142				
2,4-Dinitrotoluene	79	10	102	0.0	77.0	57	128				
2,6-Dinitrotoluene	88	10	102	0.0	86.0	50	118				
2-Chloronaphthalene	84	10	102	0.0	82.0	40	116				
2-Chlorophenol	62	10	102	0.0	61.0	38	117				
2-Nitrophenol	72	10	102	0.0	70.0	47	123				
3,3´-Dichlorobenzidine	50	10	102	0.0	49.0	27	129				
4,6-Dinitro-2-methylphenol	59	10	102	0.0	58.0	44	137				
4-Bromophenyl phenyl ether	82	10	102	0.0	81.0	55	124				
4-Chloro-3-methylphenol	79	10	102	0.0	77.0	52	119				
4-Chlorophenol	64	10	102	0.0	63.0	41	81				
4-Chlorophenyl phenyl ether	83	10	102	0.0	81.0	53	121				
4-Nitrophenol	41	10	102	0.0	40.0	15	36				S
Azobenzene	78	10	102	0.0	77.0	61	116				
bis(-2-chloroethoxy)Methane	81	10	102	0.0	80.0	48	120				
bis(-2-chloroethyl)Ether	75	10	102	0.0	73.0	43	118				
bis(2-chloroisopropyl)Ether	59	10	102	0.0	58.0	37	130				
bis(2-ethylhexyl)Phthalate	78	10	102	0.0	77.0	55	135				
Butylbenzylphthalate	90	10	102	0.0	88.0	53	134				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 24 **SampType:** Sample Matrix Spike **Batch ID:** 163174
Method: SW8270C **Analysis Date:** 02/02/2022 18:21 **Prep Date:** 01/25/2022 08:25
Lab ID: B22011446-012AMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	98	10	102	0.0	96.0	56	125				
Dimethyl phthalate	86	10	102	0.0	85.0	45	127				
Di-n-butyl phthalate	96	10	102	3.1	91.0	59	127				
Di-n-octyl phthalate	79	10	102	0.0	78.0	51	140				
Hexachlorobenzene	72	10	102	0.0	71.0	53	125				
Hexachlorobutadiene	52	10	102	0.0	51.0	22	124				
Hexachlorocyclopentadiene	45	10	102	0.0	45.0	39	91				
Hexachloroethane	53	10	102	0.0	52.0	21	115				
Isophorone	68	10	102	0.0	67.0	42	124				
m+p-Cresols	63	10	102	0.0	62.0	29	110				
Nitrobenzene	79	10	102	0.0	77.0	45	121				
n-Nitrosodimethylamine	50	10	102	0.0	49.0	20	45				S
n-Nitroso-di-n-propylamine	82	10	102	0.0	81.0	49	119				
n-Nitrosodiphenylamine	83	10	102	0.0	82.0	51	123				
o-Cresol	66	10	102	0.0	65.0	30	117				
Pentachlorophenol	82	10	102	0.0	80.0	35	138				
Phenol	46	10	102	0.0	45.0	37	75				
Pyridine	28	10	102	0.0	27.0	16	45				
Surr: 2,4,6-Tribromophenol	167	10	204	0.0	82.0	43	140				
Surr: 2-Fluorobiphenyl	71	10	102	0.0	69.0	44	119				
Surr: 2-Fluorophenol	75	10	204	0.0	37.0	19	119				
Surr: Nitrobenzene-d5	70	10	102	0.0	69.0	44	120				
Surr: Phenol-d5	80	10	204	0.0	39.0	10	65				
Surr: Terphenyl-d14	90	10	102	0.0	88.0	50	134				

Associated Samples: **B22011227-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374159
Method: SW8270C **Analysis Date:** 02/02/2022 06:35 **Prep Date:**
Lab ID: 01-Feb-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	79	10	75		106.0	80	120				
1,2-Dichlorobenzene	76	10	75		102.0	80	120				
1,3-Dichlorobenzene	81	10	75		108.0	80	120				
1,4-Dichlorobenzene	74	10	75		98.0	80	120				
2,4,5-Trichlorophenol	81	10	75		108.0	80	120				
2,4,6-Trichlorophenol	86	10	75		115.0	80	120				
2,4-Dichlorophenol	80	10	75		106.0	80	120				
2,4-Dimethylphenol	71	10	75		94.0	80	120				
2,4-Dinitrophenol	60	10	75		80.0	80	120				
2,4-Dinitrotoluene	76	10	75		102.0	80	120				
2,6-Dinitrotoluene	77	10	75		102.0	80	120				
2-Chloronaphthalene	87	10	75		115.0	80	120				
2-Chlorophenol	79	10	75		106.0	80	120				
2-Nitrophenol	75	10	75		101.0	80	120				
3,3´-Dichlorobenzidine	82	10	75		109.0	80	120				
4,6-Dinitro-2-methylphenol	71	10	75		95.0	80	120				
4-Bromophenyl phenyl ether	81	10	75		107.0	80	120				
4-Chloro-3-methylphenol	81	10	75		108.0	80	120				
4-Chlorophenol	77	10	75		103.0	80	120				
4-Chlorophenyl phenyl ether	78	10	75		104.0	80	120				
4-Nitrophenol	80	10	75		106.0	80	120				
Azobenzene	74	10	75		99.0	80	120				
bis(-2-chloroethoxy)Methane	85	10	75		113.0	80	120				
bis(-2-chloroethyl)Ether	79	10	75		106.0	80	120				
bis(2-chloroisopropyl)Ether	76	10	75		101.0	80	120				
bis(2-ethylhexyl)Phthalate	76	10	75		102.0	80	120				
Butylbenzylphthalate	77	10	75		103.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374159
Method: SW8270C **Analysis Date:** 02/02/2022 06:35 **Prep Date:**
Lab ID: 01-Feb-22_CCV_27 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	77	10	75		103.0	80	120				
Dimethyl phthalate	79	10	75		105.0	80	120				
Di-n-butyl phthalate	81	10	75		108.0	80	120				
Di-n-octyl phthalate	75	10	75		100.0	80	120				
Hexachlorobenzene	71	10	75		94.0	80	120				
Hexachlorobutadiene	74	10	75		99.0	80	120				
Hexachlorocyclopentadiene	71	10	75		95.0	80	120				
Hexachloroethane	80	10	75		107.0	80	120				
Isophorone	79	10	75		105.0	80	120				
m+p-Cresols	76	10	75		101.0	80	120				
Nitrobenzene	80	10	75		107.0	80	120				
n-Nitrosodimethylamine	81	10	75		108.0	80	120				
n-Nitroso-di-n-propylamine	76	10	75		102.0	80	120				
n-Nitrosodiphenylamine	78	10	75		104.0	80	120				
o-Cresol	75	10	75		100.0	80	120				
Pentachlorophenol	74	10	75		98.0	80	120				
Phenol	81	10	75		108.0	80	120				
Pyridine	64	10	75		86.0	80	120				
Surr: 2,4,6-Tribromophenol	77	10	75		102.0	80	120				
Surr: 2-Fluorobiphenyl	79	10	75		106.0	80	120				
Surr: 2-Fluorophenol	79	10	75		105.0	80	120				
Surr: Nitrobenzene-d5	77	10	75		103.0	80	120				
Surr: Phenol-d5	80	10	75		107.0	80	120				
Surr: Terphenyl-d14	77	10	75		103.0	80	120				

Associated Samples: **B22011227-001C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374159
Method: SW8270C **Analysis Date:** 02/02/2022 18:54 **Prep Date:**
Lab ID: 01-Feb-22_CCV_50 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	73	10	75		98.0	50	150				
1,2-Dichlorobenzene	78	10	75		104.0	50	150				
1,3-Dichlorobenzene	82	10	75		109.0	50	150				
1,4-Dichlorobenzene	79	10	75		106.0	50	150				
2,4,5-Trichlorophenol	84	10	75		112.0	50	150				
2,4,6-Trichlorophenol	83	10	75		111.0	50	150				
2,4-Dichlorophenol	79	10	75		105.0	50	150				
2,4-Dimethylphenol	72	10	75		96.0	50	150				
2,4-Dinitrophenol	54	10	75		72.0	50	150				
2,4-Dinitrotoluene	70	10	75		93.0	50	150				
2,6-Dinitrotoluene	77	10	75		103.0	50	150				
2-Chloronaphthalene	78	10	75		104.0	50	150				
2-Chlorophenol	84	10	75		111.0	50	150				
2-Nitrophenol	74	10	75		99.0	50	150				
3,3´-Dichlorobenzidine	79	10	75		105.0	50	150				
4,6-Dinitro-2-methylphenol	65	10	75		87.0	50	150				
4-Bromophenyl phenyl ether	74	10	75		99.0	50	150				
4-Chloro-3-methylphenol	78	10	75		104.0	50	150				
4-Chlorophenol	73	10	75		97.0	50	150				
4-Chlorophenyl phenyl ether	76	10	75		101.0	50	150				
4-Nitrophenol	80	10	75		106.0	50	150				
Azobenzene	76	10	75		102.0	50	150				
bis(-2-chloroethoxy)Methane	79	10	75		105.0	50	150				
bis(-2-chloroethyl)Ether	81	10	75		108.0	50	150				
bis(2-chloroisopropyl)Ether	78	10	75		103.0	50	150				
bis(2-ethylhexyl)Phthalate	75	10	75		100.0	50	150				
Butylbenzylphthalate	76	10	75		101.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Run ID: Run Order: SV5973N.I_220201B: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374159
Method: SW8270C **Analysis Date:** 02/02/2022 18:54 **Prep Date:**
Lab ID: 01-Feb-22_CCV_50 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	82	10	75		109.0	50	150				
Dimethyl phthalate	76	10	75		101.0	50	150				
Di-n-butyl phthalate	80	10	75		106.0	50	150				
Di-n-octyl phthalate	74	10	75		99.0	50	150				
Hexachlorobenzene	73	10	75		97.0	50	150				
Hexachlorobutadiene	71	10	75		95.0	50	150				
Hexachlorocyclopentadiene	70	10	75		94.0	50	150				
Hexachloroethane	83	10	75		110.0	50	150				
Isophorone	73	10	75		98.0	50	150				
m+p-Cresols	83	10	75		110.0	50	150				
Nitrobenzene	76	10	75		102.0	50	150				
n-Nitrosodimethylamine	77	10	75		102.0	50	150				
n-Nitroso-di-n-propylamine	79	10	75		106.0	50	150				
n-Nitrosodiphenylamine	73	10	75		97.0	50	150				
o-Cresol	79	10	75		105.0	50	150				
Pentachlorophenol	73	10	75		97.0	50	150				
Phenol	81	10	75		107.0	50	150				
Pyridine	76	10	75		101.0	50	150				
Surr: 2,4,6-Tribromophenol	72	10	75		96.0	50	150				
Surr: 2-Fluorobiphenyl	72	10	75		96.0	50	150				
Surr: 2-Fluorophenol	84	10	75		112.0	50	150				
Surr: Nitrobenzene-d5	78	10	75		104.0	50	150				
Surr: Phenol-d5	88	10	75		118.0	50	150				
Surr: Terphenyl-d14	74	10	75		99.0	50	150				

Associated Samples: **B22011227-001C**

Analytical QC Exceptions Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/02/2022

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
SW8270C	Semi-Volatile Organic Compounds, Extended List	163174	001C	LCS-DOD	LCS-163174	2/2/2022	12:28	4-Nitrophenol	40.0	15	36			S
								n-Nitrosodimethylamine	49.0	20	45			S
				LCSD-DOD	LCSD-163174	2/2/2022	13:00	2,4-Dinitrotoluene	104.0	57	128	23	20.0	R
								2-Chlorophenol	79.0	38	117	24	20.0	R
								4-Nitrophenol	47.0	15	36	15	20.0	S
								bis(2-chloroisopropyl)Ether	70.0	37	130	21	20.0	R
								Hexachlorobenzene	98.0	53	125	23	20.0	R
								n-Nitrosodimethylamine	56.0	20	45	14	20.0	S
								n-Nitroso-di-n-propylamine	102.0	49	119	21	20.0	R
								Pentachlorophenol	119.0	35	138	23	20.0	R
				MS-DOD	B22011446-006CMS	2/2/2022	16:45	4-Nitrophenol	38.0	15	36			S
								Phenol	34.0	37	75			S
				MS-DOD	B22011446-012AMS	2/2/2022	18:21	4-Nitrophenol	40.0	15	36			S
								n-Nitrosodimethylamine	49.0	20	45			S

Preparation and Analysis Dates Report

Work Order: B22011227
Client: AECOM - Honolulu
Project Name: CV18F0126, 60571032.02.46.01
Report Date: 3/02/2022

Lab ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Method	Prep Date	Prep Batch	Analysis Method	Analysis Date
001B	ERH2468 (RHMW06)	01/18/2022 16:30	Ground Water	Metals by ICP-MS, Total		SW3010A	01/20/2022 13:17	163116	SW6020	01/22/2022 02:45
001C	ERH2468 (RHMW06)	01/18/2022 16:30	Ground Water	Low Level PAH by 8270C SIM		SW3510C	01/24/2022 11:49	163174	SW8270CSIM	01/31/2022 21:08
				Semi-Volatile Organic Compounds, Extended List		SW3510C	01/24/2022 11:49	163174	SW8270C	02/02/2022 14:04
001D	ERH2468 (RHMW06)	01/18/2022 16:30	Ground Water	Diesel Range Organics		SW3520C	01/20/2022 13:15	163074	SW8015C	01/24/2022 12:50
						SW3520C	01/20/2022 13:15	163074	SW8015C	01/25/2022 17:14
001H	ERH2468 (RHMW06)	01/18/2022 16:30	Ground Water	EDB in Water by ECD		SW8011	01/21/2022 07:49	163129	SW8011	01/22/2022 15:53
004A	ERH2467 (Trip Blank) 14733	01/18/2022 16:30	Trip Blank	EDB in Water by ECD		SW8011	01/21/2022 07:49	163129	SW8011	01/22/2022 16:13

Chemical Abstracts Service (CAS) Registry Numbers

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011227
Project: CV18F0126, 60571032.02.46.01 **Report Date:** 03/02/2022

Analyses	CAS No
LOW LEVEL PAH BY 8270C SIM	
1-Methylnaphthalene	90-12-0
2-Methylnaphthalene	91-57-6
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Anthracene	120-12-7
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
Chrysene	218-01-9
Dibenzo(a,h)anthracene	53-70-3
Fluoranthene	206-44-0
Fluorene	86-73-7
Indeno(1,2,3-cd)pyrene	193-39-5
Naphthalene	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0
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
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)

Diesel Range Organics (SGT-C10 to C24)

Oil Range Hydrocarbons (C24 to C40)

Oil Range Hydrocarbons (SGT-C24 to C40)

Total Extractable Hydrocarbons

Total Extractable Hydrocarbons (SGT)

ORGANIC CHARACTERISTICS

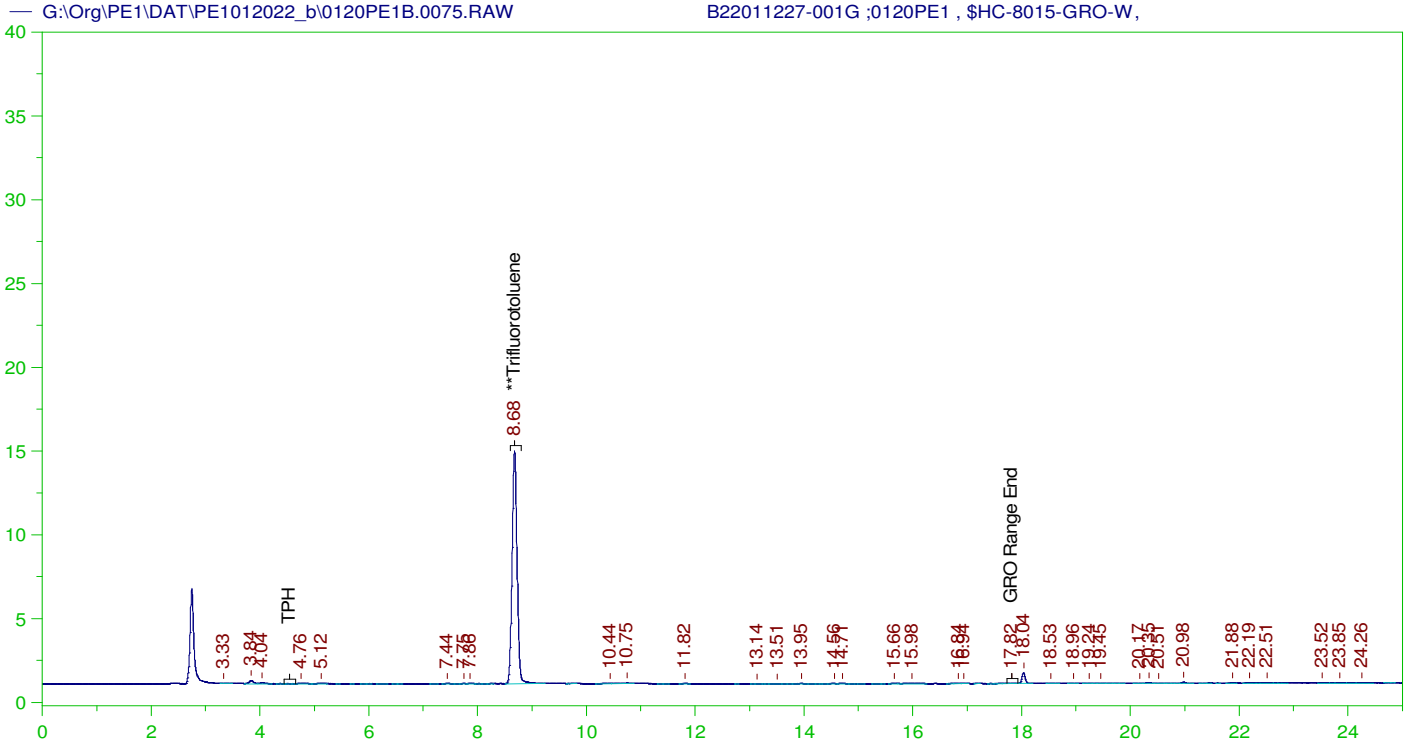
Methane	74-82-8

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
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-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
Azobenzene	103-33-3
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
Di-n-butyl phthalate	84-74-2
Di-n-octyl phthalate	117-84-0
Diethyl phthalate	84-66-2
Dimethyl phthalate	131-11-3
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachlorocyclopentadiene	77-47-4
Hexachloroethane	67-72-1
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
Nitrobenzene	98-95-3
o-Cresol	95-48-7
Pentachlorophenol	87-86-5
Phenol	108-95-2
Pyridine	110-86-1

ERH2468 (RHMW06)

G:\Org\PE1\DAT\PE1012022_b\0120PE1B.0075.RAW B22011227-001G ;0120PE1 , $HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011227-001G ;0120PE1 , $HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012022_b\0120PE1B.0075.RAW
Date & Time Acquired: 1/22/2022 2:51:47 AM
Method File: G:\Org\PE1\Methods\211208GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

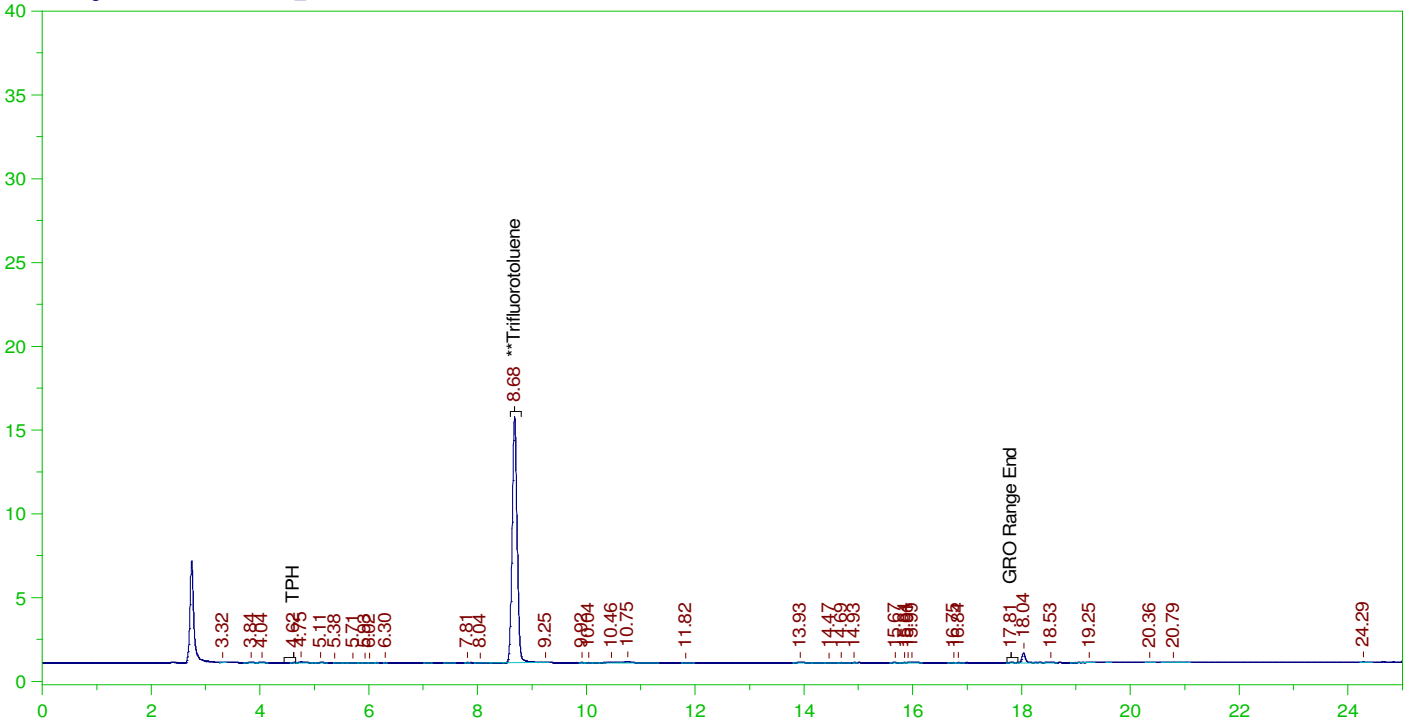
Mean RF for C6 to C10: 945.9678
Mean RF for TPH: 909.3915
Rt range for Gasoline Range Organics: 4.45 to 17.93

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	8.681	25.	18.871	75.49	-

C6 to C10 Area:3281.19 C6 to C10 Amount: 0.6937214
TPH Area:9358.228 TPH Amount: 2.05813

ERH2467 (Trip Blank) 14733

G:\Org\PE1\DAT\PE1012022_b\0120PE1B.0054.RAW B22011227-003A ;0120PE1 , $HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011227-003A ;0120PE1 , $HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012022_b\0120PE1B.0054.RAW
Date & Time Acquired: 1/21/2022 2:51:05 PM
Method File: G:\Org\PE1\Methods\211208G1227-3DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

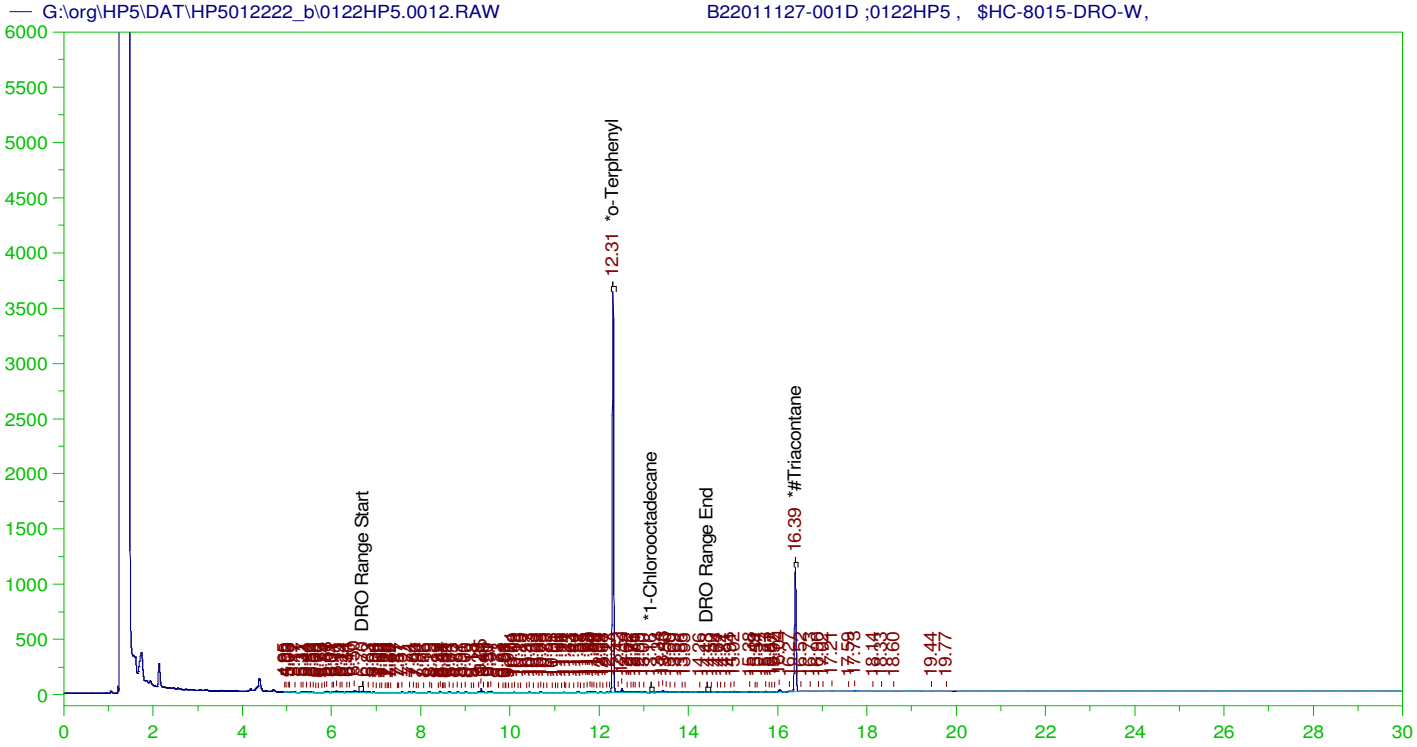
Mean RF for C6 to C10: 945.9678
Mean RF for TPH: 909.3915
Rt range for Gasoline Range Organics: 4.45 to 17.93

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	8.682	25.	19.943	79.77	-

C6 to C10 Area:5416.152 C6 to C10 Amount: 1.145103
TPH Area:8922.154 TPH Amount: 1.962225

ERH2454 (OWDFMW08A) Batch ID: 163074

G:\org\HP5\DAT\HP5012222_b\0122HP5.0012.RAW B22011127-001D ;0122HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011127-001D ;0122HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012222_b\0122HP5.0012.RAW
Date & Time Acquired: 1/22/2022 6:04:41 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

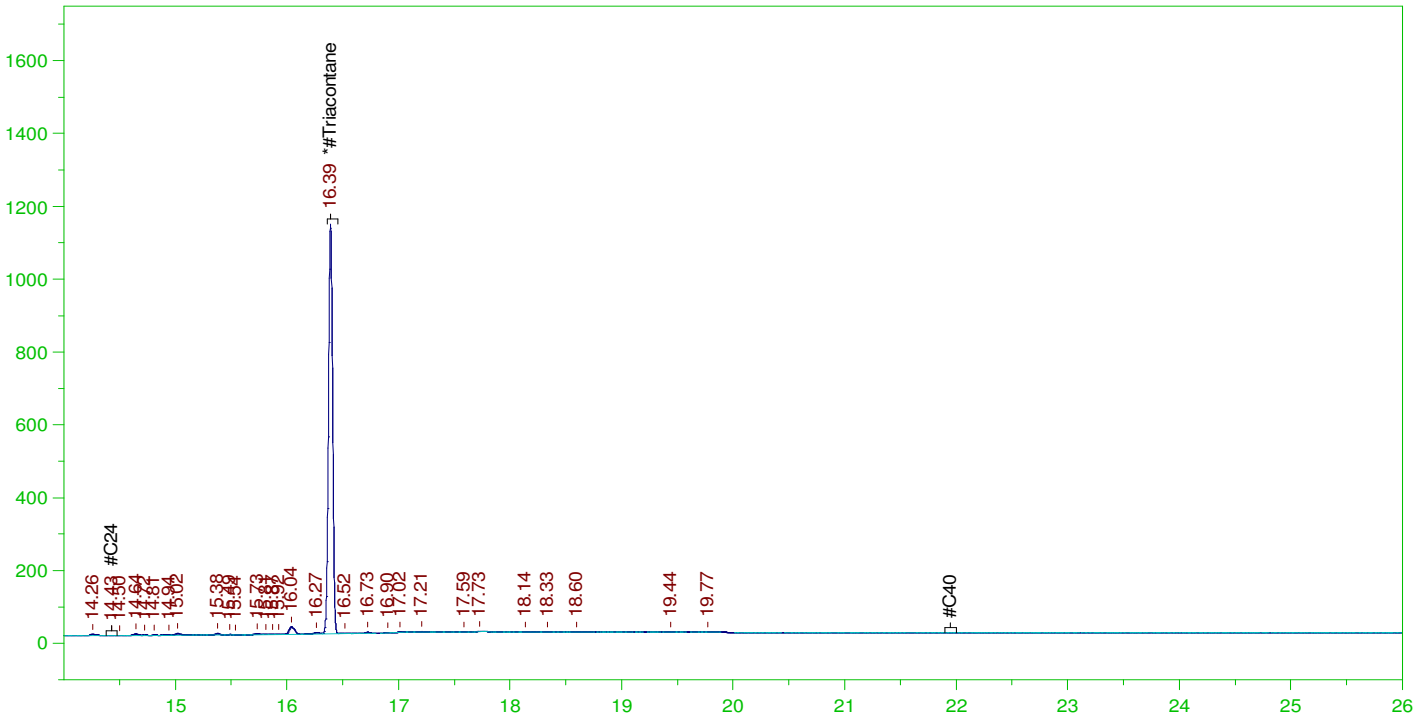
Mean RF for TEH: 32675.36
Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.306	.19	.177	93.09	-
*1-Chlorooctadecane	13.162	.19	.	.02	-
*#Triacontane	16.391	.19	.093	48.86	-

DRO Area:761408.3 DRO Amount: 2.219259E-02
TEH Area:1251325 TEH Amount: 3.647208E-02

ERH2454 (OWDFMW08A) Batch ID: 163074

G:\org\HP5\DAT\HP5012222_b\0122HP5.0012.RAW B22011127-001D ;0122HP5 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011127-001D ;0122HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012222_b\0122HP5.0012.RAW
Date & Time Acquired: 1/22/2022 6:04:41 PM
Method File: G:\Org\HP5\Methods\DR_OROS-BBb-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BBb_SAMP.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

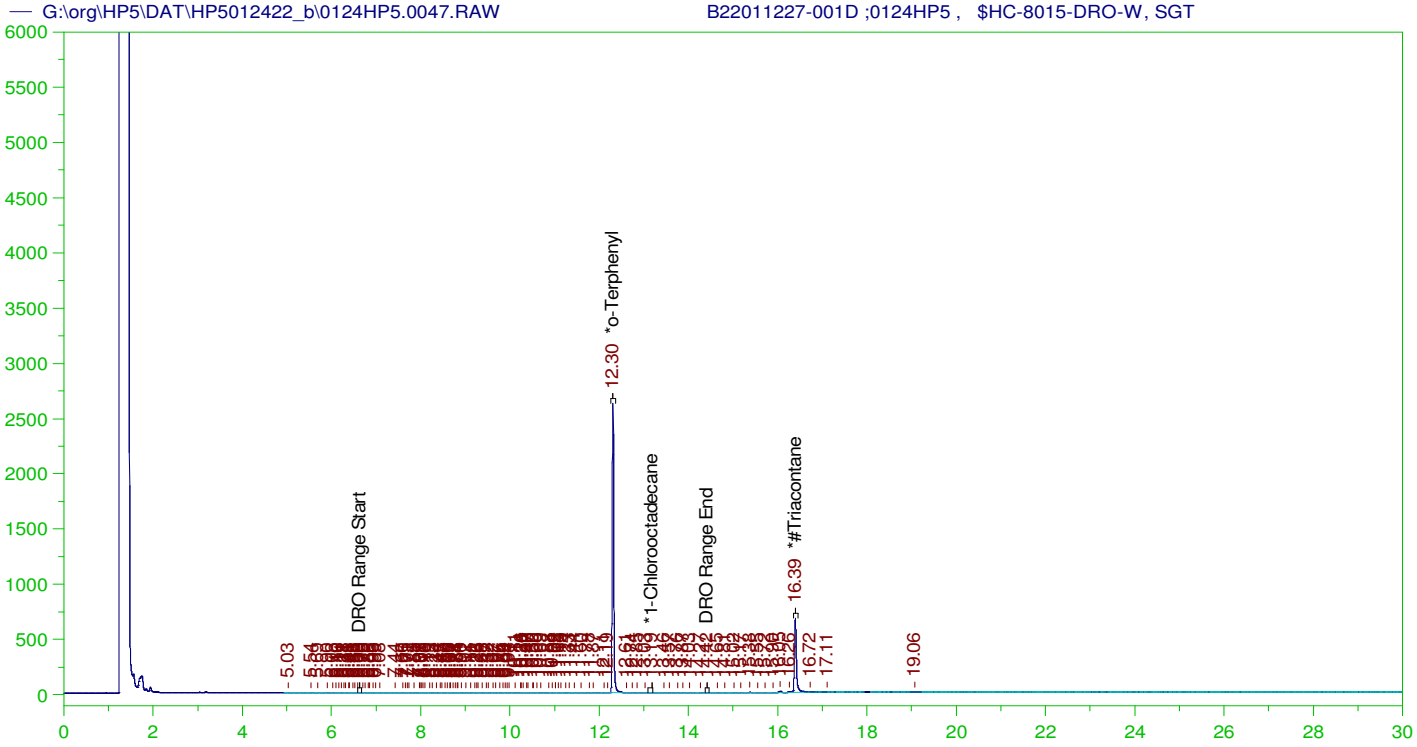
Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.38 to 22

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.391	.476	.093	19.54	-

RRO Area:200455.3 RRO AMOUNT: 7.224711E-03

ERH2468 (RHMW06) Batch ID: 163074

G:\org\HP5\DAT\HP5012422_b\0124HP5.0047.RAW B22011227-001D ;0124HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011227-001D ;0124HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0047.RAW
Date & Time Acquired: 1/25/2022 5:14:47 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-JC-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JC-C24-T.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
Rt range for Diesel Range Organics: 6.58 to 14.47

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.305	.202	.159	78.61	-
*1-Chlorooctadecane	13.187	.202	.	.03	-
*#Triacontane	16.39	.202	.075	37.17	-

DRO Area:248792.1 DRO Amount: 7.690968E-03
TEH Area:397073.6 TEH Amount: 1.227483E-02

ERH2468 (RHMW06) Batch ID: 163074

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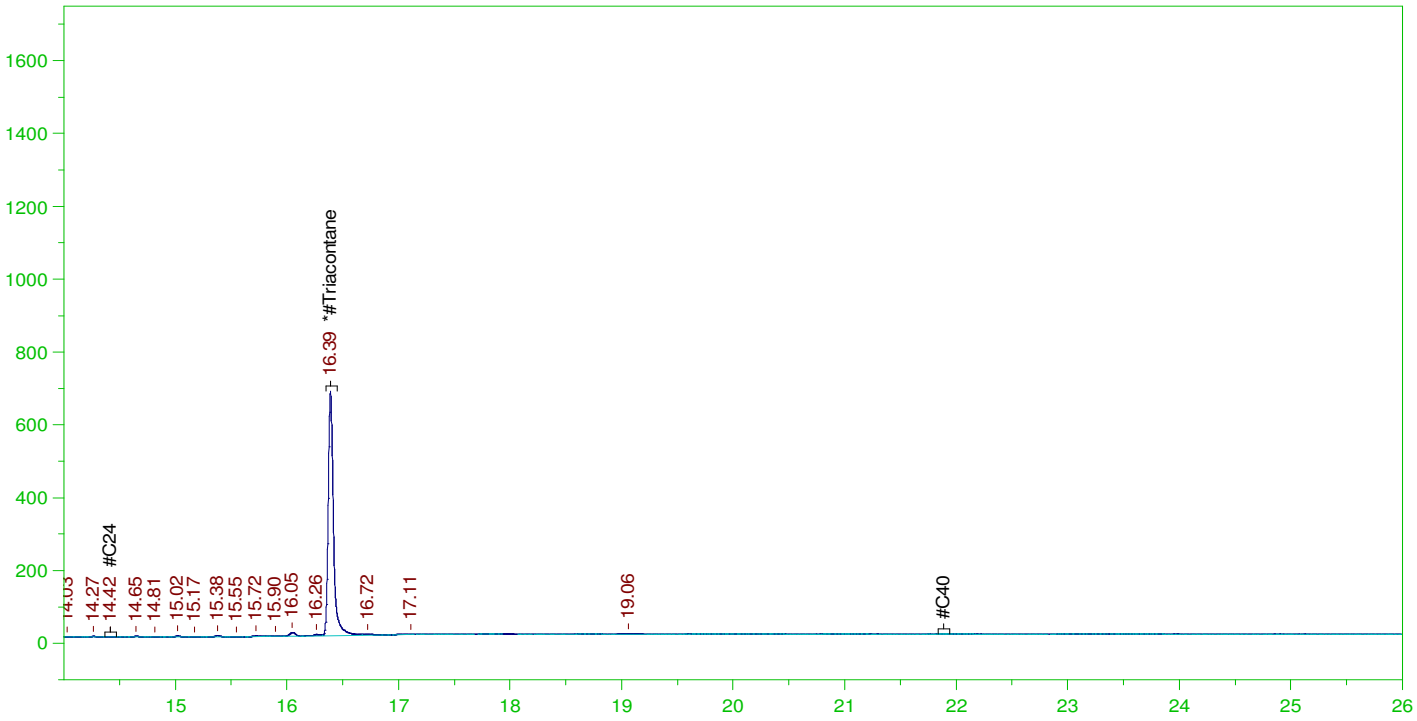

RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011227-001D ;0124HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0047.RAW
Date & Time Acquired: 1/25/2022 5:14:47 PM
Method File: G:\Org\HP5\Methods\DR_OROS-BC-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BC_SAMP.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.37 to 21.94

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.39	.505	.075	14.87	-

RRO Area:111531.1 RRO AMOUNT: 4.263371E-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
1001 Bishop Street
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,

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

AECOM
1001 Bishop Street
Suite 1600
Honolulu, HI 96813, United States of America
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