ANALYTICAL SUMMARY REPORT

January 27, 2022

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

Work Order: B21121402 Quote ID: 5912

Project Name: CV18F0126/60571032.02.20.01

Energy Laboratories Inc Billings MT received the following 11 samples from AECOM - Honolulu on 12/16/2021 for analysis.

Lab ID	Client Sample ID	Collect Date	Received Date	Matrix	Test
B21121402-001	ERH2186 (RHMW06)	12/13/21 17:10	12/16/2021	Ground Water	Metals Digestion by SW3010A DRO-Liquid-Liquid Extraction SW3520C Separatory Funnel SW3510C Liquid-Liquid Ext. Carbon, Total Organic SW9060A Metals by ICP-MS, Total SW6020 8260-Volatile Organic Compounds-Short List SW8260B EDB in Water by ECD SW8011 Gasoline Range Organics SW8015C Diesel Range Organics SW8015C Headspace Gas Analysis SW8015M Semi-Volatile Organic Compounds SW8270C Low Level PAH SW8270C SW8011 Microextraction
B21121402-002	ERH2197 (OWDFMW01)	12/13/21 14:35	12/16/2021	Ground Water	Same As Above
B21121402-003	ERH2203 (RHMW14-03)	12/13/21 15:15	12/16/2021	Ground Water	Metals Digestion by SW3010A DRO-Liquid-Liquid Extraction SW3520C Separatory Funnel SW3510C Liquid-Liquid Ext. Carbon, Total Organic SW9060A Metals by ICP-MS, Total SW6020 8260-Volatile Organic Compounds-Short List SW8260B EDB in Water by ECD SW8011 Gasoline Range Organics SW8015C Diesel Range Organics SW8015C Semi-Volatile Organic Compounds SW8270C Low Level PAH SW8270C SW8011 Microextraction
B21121402-004	ERH2196 Trip Blank-14525 8260	12/13/21 14:35	12/16/2021	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B21121402-006	ERH2196 Trip Blank-14525 GRO	12/13/21 14:35	12/16/2021	Trip Blank	Gasoline Range Organics SW8015C
B21121402-008	ERH2196 Client Trip Blank 8011	12/13/21 14:35	12/16/2021	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction

ANALYTICAL SUMMARY REPORT

B21121402-009	ERH2196 Trip Blank-14525 Methane	12/13/21 14:35	12/16/2021	Trip Blank	Headspace Gas Analysis SW8015M
B21121402-010	ERH2202 Trip Blank-14525 8260	12/13/21 14:35	12/16/2021	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B21121402-012	ERH2203 Client Trip Blank GRO	12/13/21 14:35	12/16/2021	Trip Blank	Gasoline Range Organics SW8015C
B21121402-013	ERH2202 Client Trip Blank 8011	12/13/21 14:35	12/16/2021	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B21121402-014	ERH2202 Client Trip Blank Methane	12/13/21 14:35	12/16/2021	Trip Blank	Headspace Gas Analysis SW8015M

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

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

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

Report Approved By:

Quality Assurance Manager

Digitally signed by
Leigh Ann. Wise
Date: 2022.01.27 12:44:32 -07:00

CLIENT: AECOM - Honolulu
Project: CV18F0126/60571032.02.20.01
Work Order: B21121402
Report Date: 1/27/2022

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 Level IV 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. Corrective actions regarding Semi-Volatile Organic Compounds by EPA 8270C analysis are summarized below.

Method SW8270C:

ERH2186 (RHMW06), B21121402-001

Due to low surrogate recoveries, the sample was re-extracted and re-analyzed. The re-extraction prep hold time was exceeded by 0.790 days. Both the original and re-extracted results are included in the analytical report.

ERH2197 (OWDFMW01), B21121402-002 and ERH2203 (RHMW14-03), B21121402-003

The surrogate additions were added at a lower concentration to recover within the calibrated range for Low Level 8270C SIM analysis. Because of this, the surrogates recovered at or slightly below the calibrated range by normal 8270C scan analysis.

MB-162302, LLCS-162302, LCS-162302, LCSD-162302, B21121234-001AMS, LCS-162392, LCSD-162392, and B21121605-001BMS

The analytes 4-Nitrophenol, n-Nitrosodimethylamine, 4-Chlorophenol and Nitrobenzene were slightly above quality control limits but these analytes were not detected in the samples. Benzidine is a known very reactive compound and often recovers poorly. RPDs were slightly above the quality control limit for 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, Benzidine, Nitrobenzene, and n-Nitroso-di-n-propylamine. Surrogates Nitrobenzene-d5 and Terphenyl-d14 and analyte Pyridine were slightly below quality control limits. These analytes were not detected in the associated samples.Prep Comments for Sample B21121402-001A, Test SVOC-3510C-8270: The prep hold time was exceeded by 2.65 days. The prep hold time was exceeded by 0.790 days.

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Chain of Custody & Analytical Request Record

www.energylab.com

COC: 202112-14-NOI

DoD Samples

Page 1 of 3

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, Hawaii 96813
Email	alethea.ramos / 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 COCs.
5. *SVOC/VOC (full suite); PAH SIM (naphthalene, 1-methylnaphthalene, 2-methylnaphthalene)

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126/60571032 02.20.01
Sampler Name	GM, CF, NL
Sampler Phone	808-987-3201
Sample Origin State	Hawaii
EPA/State Compliance	☐ Yes ☒ No

URANIUM MINING CLIENTS MUST indicate sample type
☐ Unprocessed Ore
☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING
☐ 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

Matrix Codes
A - Air
W - Water
S - Soils/Solids
V - Vegetation
B - Bioassay
O - Oil
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)	EPA 3630/8015 TPH-d/o	EPA 3630/8015 TPH-d/o w/ SGC	8260 VOCs (Full Suite) + DCA*	8015 TPH-g	8270D SVOC(Full Suite)* PAH 8270D SIM*	8011 EDB	EPA 9060 TOC	EPA 6020 Total Lead	RSK175 Methane	See Attached	RUSH TAT	ELI LAB ID (Laboratory Use Only)
1	ERH2186 (RHMW06)	12/13/2021	1:10 pm	5	GW	✔	✔			✔			✔			X	B21121402-001
2	ERH2197 (OWDFMW01)	12/13/2021	10:35 am	3	GW					✔			✔			X	-002
3	TB ERH2196-8260-14525/client																-004, 005
4	" " -GRO-14525/client																-006, 007
5	" " -8011-client																-008
6	" " -Methane-14525																-009
7	TB ERH2202-8260-14525/client																-010, 011
8	" " -GRO-client																-012
9	" " -8011-client																-013, -014
	" " -Methane-client																

TB 12/16/21

JH 12/14

ELI is REQUIRED to provide preservative traceability. If the preservatives supplied with the bottle order were **NOT** used, please attach your preservative information with this COC.

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Jordan Heinlein	12/14 1:01				
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print)	Date/Time	Signature
				Taylor Burris	12/16/21 0955	

LABORATORY USE ONLY

Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp	Temp Blank Y N	On Ice Y N	Payment Type CC Cash Check_____	Amount $	Receipt Number (cash/check only)
				0.2 °C	N	Y			

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

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Chain of Custody & Analytical Request Record

DoD Samples

www.energylab.com

COC: 202112-15-NOI

Page 2 of 3

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, Hawaii 96813
Email	alethea.ramos / 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 COCs.
5. *SVOC/VOC (full suite); PAH SIM (naphthalene, 1-methylnaphthalene, 2-methylnaphthalene)

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126/60571032.02.20.01
Sampler Name	GM,CF,NL,RS,CB,BL,MZ
Sampler Phone	808-987-3201
Sample Origin State	Hawaii
EPA/State Compliance	☐ Yes ☒ No

URANIUM MINING CLIENTS MUST indicate sample type
☐ Unprocessed Ore
☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING
☐ 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

Matrix Codes
A - Air
W - Water
S - Soils/Solids
V - Vegetation
B - Bioassay
O - Oil
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)	EPA 3630/8015 TPH-d/o	EPA 3630/8015 TPH-d/o w/ SGC	8260 VOCs (Full Suite) + DCA*	8015 TPH-g	8270D SVOC(Full Suite)* PAH 8270D SIM*	8011 EDB	EPA 9060 TOC	EPA 6020 Total Lead	RSK175 Methane	See Attached	RUSH TAT	ELI LAB ID (Laboratory Use Only)
1	ERH2203 (RHMW14-03)	12/13/2021	11:15 am	5	GW	✔	✔			✔			✔			X	-003
2	ERH2197 (OWDFMW01)	12/13/2021	10:35 am	2	GW	✔	✔									X	-002
3																	B21121402
4																	
5																	
6			JH	12/14													
7																	
8																	
9																	

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Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Jordan Heinlein	12/14 1502				
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print)	Date/Time	Signature
				Taylor Burris	12/16/21 0955	

LABORATORY USE ONLY

Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp	Temp Blank Y N	Ice Y N	Payment Type CC Cash Check	Amount $	Receipt Number (cash/check only)
				0-3°C	N	Y N			

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Chain of Custody & Analytical Request Record

DoD Samples

www.energylab.com

COC: 202112-16-NOI

Page 3 of 3

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, Hawaii 96813
Email	alethea.ramos / 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 COCs.
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Project Information

Project Name, PWSID, Permit, etc.	CV18F0126/60571032.02.20.01
Sampler Name	GM.CF,NL,RS.CB.BL,MZ
Sampler Phone	808-987-3201
Sample Origin State	Hawaii
EPA/State Compliance	☐ Yes ☒ No

URANIUM MINING CLIENTS MUST indicate sample type
☐ Unprocessed Ore
☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING
☐ 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

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

Analysis Requested

All turnaround times are standard unless marked as RUSH.
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	Sample Identification (Name, Location, Interval, etc.)	Collection Date	Collection Time	Number of Containers	Matrix (See Codes Above)	EPA 3630/8015 TPH-d/o	EPA 3630/8015 TPH-d/o w/ SGC	8260 VOCs (Full Suite) + DCA*	8015 TPH-g	8270D SVOC(Full Suite)* PAH 8270D SIM*	8011 EDB	EPA 9060 TOC	EPA 6020 Total Lead	RSK175 Methane	See Attached	RUSH TAT	ELI LAB ID (Laboratory Use Only)
1	ERH2203 (RHMW14-03)	12/13/2021	11 15 am	11	GW			✔	✔		✔	✔				X	B211214002 -003
2	ERH2186 (RHMW06)	12/13/2021	1:10 pm	13	GW			✔	✔		✔	✔		✔		X	-001
3	ERH2197 (OWDFMW01)	12/13/2021	10:35 am	13	GW			✔	✔		✔	✔		✔		X	-002
4	ERH2196 (Trip Blank)	12/13/2021	10:00 am	8	WQ			✔	✔		✔			✔		X	-004 → 009
5	ERH2202 (Trip Blank)	12/13/2021	11:10 am	10	WQ			✔	✔		✔			✔		X	-010 → 014
6																	
7																	
8																	
9																	

JH 12.14

ELI is REQUIRED to provide preservative traceability. If the preservatives supplied with the bottle order were **NOT** used, please attach your preservative information with this COC.

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Jordan Heinlein	12/14 1:03				
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print)	Date/Time	Signature
				VICTOR BURNS	12/16/21 0935	

LABORATORY USE ONLY

Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp	Temp Blank Y N	On Ice Y N	Payment Type CC Cash Check_____	Amount $	Receipt Number *(cash/check only)*
				1.2 °C					

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

Work Order Receipt Checklist

AECOM - Honolulu

B21121402

Login completed by: Leslie S. Cadreau
Date Received: 12/16/2021

Reviewed by: BL2000\gmccartney
Received by: tkb

Reviewed Date: 12/17/2021
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	°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 Temperature Blank temperature for shipping container 1 was 0.2°C, shipping container 2 was 0.3°C and shipping container 3 was 1.4°C.

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

The containers and preservative for Total Organic Carbon (TOC) by method 9060 were not provided by Energy Laboratories Inc. The samples for Total Lead and the Methane containers for sample ERH2186, one of the trip blanks for sample ERH2196 for 8260 and GRO and all of the trip blanks except one vial for 8260 for sample ERH2202 were received without the preservative traceability bottle label provided by Energy Laboratories.

All containers except the Total Lead container for sample ERH2186 were received with custody seals.

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: ERH2186 (RHMW06)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-001
Collection Date: 12/13/2021 17:10
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.1 to 0.2	ND	mg/L	1	U	0.50	0.50	0.17		SW9060A	12/22/2021 18:52/eli-ca	SUB-C278180 : 5	C_R278180
METALS, TOTAL												
Lead	0.00050	mg/L	1	J	0.001	0.0001	0.00008		SW6020	12/20/2021 13:48/car	ICPMS207-B_211220A : 29	162274
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Bromobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Bromodichloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Bromomethane	ND	ug/L	1	U	1.0	0.50	0.25		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Chlorobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.25	0.084		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Chloroform	ND	ug/L	1	U	1.0	0.25	0.079		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.088		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.089		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.20		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.083		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.094		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.085		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Ethylbenzene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	2.2		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2186 (RHMW06)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-001
Collection Date: 12/13/2021 17:10
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Styrene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.087		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Tetrachloroethene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Toluene	ND	ug/L	1	U	1.0	0.25	0.075		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Trichloroethene	ND	ug/L	1	U	1.0	0.25	0.099		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.38		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Surr: Dibromofluoromethane	103.0	%REC	1		80-119				SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Surr: 1,2-Dichloroethane-d4	102.0	%REC	1		81-118				SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Surr: Toluene-d8	102.0	%REC	1		89-112				SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	12/17/2021 13:30/sbd	VOA5975C.I_211217B : 7	R372427
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	12/17/2021 18:27/clt	GECD.I_211217A : 18	162287
Surr: 1,1,1,2-Tetrachloroethane	86.0	%REC	1		70-130				SW8011	12/17/2021 18:27/clt	GECD.I_211217A : 18	162287
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	12/17/2021 11:05/jp	PE 1_211217A : 5	R372029
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	12/17/2021 11:05/jp	PE 1_211217A : 5	R372029
Surr: Trifluorotoluene	80.0	%REC	1		70-130				SW8015C	12/17/2021 11:05/jp	PE 1_211217A : 5	R372029
- 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)	0.63	mg/L	1		0.30	0.15	0.039		SW8015C	12/20/2021 13:49/amn	GCFID-HP5-B_211220A : 4	162268
Diesel Range Organics (SGT-C10 to C24)	0.043	mg/L	1	J	0.30	0.12	0.039		SW8015C	12/21/2021 01:18/amn	GCFID-HP5-B_211220B : 4	162268
Oil Range Hydrocarbons (C24 to C40)	1.4	mg/L	1		0.30	0.15	0.089		SW8015C	12/20/2021 13:49/amn	GCFID-HP5-B_211220A : 4	162268
Oil Range Hydrocarbons (SGT-C24 to C40)	0.16	mg/L	1	J	0.30	0.15	0.089		SW8015C	12/21/2021 01:18/amn	GCFID-HP5-B_211220B : 4	162268
Total Extractable Hydrocarbons	4.4	mg/L	1		0.30	0.15	0.076		SW8015C	12/20/2021 13:49/amn	GCFID-HP5-B_211220A : 4	162268
Total Extractable Hydrocarbons (SGT)	0.20	mg/L	1	J	0.30	0.12	0.033		SW8015C	12/21/2021 01:18/amn	GCFID-HP5-B_211220B : 4	162268
Surr: o-Terphenyl	72.0	%REC	1		56-125				SW8015C	12/20/2021 13:49/amn	GCFID-HP5-B_211220A : 4	162268

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2186 (RHMW06)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-001
Collection Date: 12/13/2021 17:10
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Surr: o-Terphenyl (SGT)	65.0	%REC	1		56-125				SW8015C	12/21/2021 01:18/amn	GCFID-HP5-B_211220B : 4	162268
Surr: n-Triacontane	88.0	%REC	1		50-150				SW8015C	12/20/2021 13:49/amn	GCFID-HP5-B_211220A : 4	162268
Surr: n-Triacontane (SGT)	72.0	%REC	1		50-150				SW8015C	12/21/2021 01:18/amn	GCFID-HP5-B_211220B : 4	162268
- 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	12/16/2021 14:56/jdw	FID-HEADSPACE_211216B : 5	R371986
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.0	1.9		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.0	1.9		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.2		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.1		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
1-Methylnaphthalene	ND	ug/L	1	U	10	5.0	2.4		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
1-Methylnaphthalene	ND	ug/L	1	U	10	5.0	2.4		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.3		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.2		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.7		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.6		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
2,4-Dinitrophenol	ND	ug/L	1	U	10	10	4.3		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.9	4.2		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.1		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.0		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
2,6-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.2		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
2,6-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.2		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
2-Chloronaphthalene	ND	ug/L	1	U	10	5.0	2.2		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
2-Chloronaphthalene	ND	ug/L	1	U	10	5.0	2.1		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
2-Chlorophenol	ND	ug/L	1	U	10	5.0	2.5		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
2-Chlorophenol	ND	ug/L	1	U	10	5.0	2.5		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
2-Methylnaphthalene	ND	ug/L	1	U	10	5.0	1.9		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
2-Methylnaphthalene	ND	ug/L	1	U	10	5.0	1.9		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
2-Nitrophenol	ND	ug/L	1	U	10	5.0	2.4		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2186 (RHMW06)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-001
Collection Date: 12/13/2021 17:10
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
2-Nitrophenol	ND	ug/L	1	U	10	5.0	2.3		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
3,3´-Dichlorobenzidine	ND	ug/L	1	U	10	5.0	2.1		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
3,3´-Dichlorobenzidine	ND	ug/L	1	U	10	5.0	2.1		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	10	2.4		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.9	2.3		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	5.0	1.8		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	5.0	1.7		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.0	1.5		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.0	1.4		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
4-Chlorophenol	ND	ug/L	1	U	10	5.0	2.7		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
4-Chlorophenol	ND	ug/L	1	U	10	5.0	2.6		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.0	2.1		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.0	2.0		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
4-Nitrophenol	ND	ug/L	1	U	10	10	2.5		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
4-Nitrophenol	ND	ug/L	1	U	10	9.9	2.5		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Acenaphthene	ND	ug/L	1	U	10	5.0	1.9		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Acenaphthene	ND	ug/L	1	U	10	5.0	1.9		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Acenaphthylene	ND	ug/L	1	U	10	5.0	1.6		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Acenaphthylene	ND	ug/L	1	U	10	5.0	1.6		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Anthracene	ND	ug/L	1	U	10	5.0	1.2		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Anthracene	ND	ug/L	1	U	10	5.0	1.2		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Azobenzene	ND	ug/L	1	U	10	5.0	1.1		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Azobenzene	ND	ug/L	1	U	10	5.0	1.1		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Benzidine	ND	ug/L	1	U	10	10	6.8		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Benzidine	ND	ug/L	1	U	10	9.9	6.7		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Benzo(a)anthracene	ND	ug/L	1	U	10	5.0	0.86		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Benzo(a)anthracene	ND	ug/L	1	U	10	5.0	0.85		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Benzo(a)pyrene	ND	ug/L	1	U	10	5.0	1.3		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Benzo(a)pyrene	ND	ug/L	1	U	10	5.0	1.2		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Benzo(b)fluoranthene	ND	ug/L	1	U	10	5.0	0.91		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Benzo(b)fluoranthene	ND	ug/L	1	U	10	5.0	0.89		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Benzo(g,h,i)perylene	ND	ug/L	1	U	10	5.0	1.0		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Benzo(g,h,i)perylene	ND	ug/L	1	U	10	5.0	1.0		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Benzo(k)fluoranthene	ND	ug/L	1	U	10	5.0	0.98		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Benzo(k)fluoranthene	ND	ug/L	1	U	10	5.0	0.96		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.0	1.4		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.0	1.3		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.0	2.6		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.0	2.5		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2186 (RHMW06)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-001
Collection Date: 12/13/2021 17:10
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.0	1.5		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.0	1.5		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	5.0	1.9		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	5.0	1.9		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Butylbenzylphthalate	ND	ug/L	1	U	10	5.0	1.6		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Butylbenzylphthalate	ND	ug/L	1	U	10	5.0	1.6		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Chrysene	ND	ug/L	1	U	10	5.0	1.2		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Chrysene	ND	ug/L	1	U	10	5.0	1.2		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Di-n-butyl phthalate	ND	ug/L	1	U	10	5.0	0.94		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Di-n-butyl phthalate	ND	ug/L	1	U	10	5.0	0.92		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.0	1.4		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.0	1.3		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Dibenzo(a,h)anthracene	ND	ug/L	1	U	10	5.0	1.2		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Dibenzo(a,h)anthracene	ND	ug/L	1	U	10	5.0	1.2		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Diethyl phthalate	ND	ug/L	1	U	10	5.0	2.2		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Diethyl phthalate	ND	ug/L	1	U	10	5.0	2.2		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Dimethyl phthalate	ND	ug/L	1	U	10	5.0	1.7		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Dimethyl phthalate	ND	ug/L	1	U	10	5.0	1.7		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Fluoranthene	ND	ug/L	1	U	10	5.0	0.89		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Fluoranthene	ND	ug/L	1	U	10	5.0	0.87		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Fluorene	ND	ug/L	1	U	10	5.0	1.8		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Fluorene	ND	ug/L	1	U	10	5.0	1.8		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Hexachlorobenzene	ND	ug/L	1	U	10	5.0	1.3		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Hexachlorobenzene	ND	ug/L	1	U	10	5.0	1.3		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Hexachlorobutadiene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Hexachlorobutadiene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.0	3.0		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.0	2.9		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Hexachloroethane	ND	ug/L	1	U	10	5.0	1.8		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Hexachloroethane	ND	ug/L	1	U	10	5.0	1.8		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	10	5.0	1.3		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	10	5.0	1.2		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Isophorone	ND	ug/L	1	U	10	5.0	1.7		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Isophorone	ND	ug/L	1	U	10	5.0	1.7		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
m+p-Cresols	ND	ug/L	1	U	10	5.0	1.8		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
m+p-Cresols	ND	ug/L	1	U	10	5.0	1.8		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.0	1.6		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.0	1.5		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.0	1.5		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2186 (RHMW06)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-001
Collection Date: 12/13/2021 17:10
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.0	1.5		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.0	1.2		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.0	1.1		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Naphthalene	ND	ug/L	1	U	10	5.0	1.8		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Naphthalene	ND	ug/L	1	U	10	5.0	1.7		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Nitrobenzene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Nitrobenzene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
o-Cresol	ND	ug/L	1	U	10	5.0	1.8		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
o-Cresol	ND	ug/L	1	U	10	5.0	1.8		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Pentachlorophenol	ND	ug/L	1	U	10	10	4.3		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Pentachlorophenol	ND	ug/L	1	U	10	9.9	4.2		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Phenanthrene	ND	ug/L	1	U	10	5.0	0.79		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Phenanthrene	ND	ug/L	1	U	10	5.0	0.78		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Phenol	ND	ug/L	1	U	10	5.0	1.5		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Phenol	ND	ug/L	1	U	10	5.0	1.4		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Pyrene	ND	ug/L	1	U	10	5.0	0.93		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Pyrene	ND	ug/L	1	U	10	5.0	0.91		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Pyridine	ND	ug/L	1	U	10	5.0	3.3		SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Pyridine	ND	ug/L	1	U	10	5.0	3.2		SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Surr: 2,4,6-Tribromophenol	69.0	%REC	1		43-140				SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Surr: 2,4,6-Tribromophenol	38.0	%REC	1	S	43-140				SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Surr: 2-Fluorophenol	28.0	%REC	1		19-119				SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Surr: 2-Fluorophenol	24.0	%REC	1		19-119				SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
Surr: Phenol-d5	28.0	%REC	1		10-65				SW8270C	12/24/2021 15:42/dsm	SV5973N.I_211223B : 15	162392
Surr: Phenol-d5	28.0	%REC	1		10-65				SW8270C	12/21/2021 01:14/dsm	SV5973N.I_211220A : 12	162302
- Due to low surrogate recoveries in the original analysis, the sample was re-extracted and re-analyzed. The re-extraction prep hold time was exceeded by 0.790 days. Both the original and re-extracted results are included in the analytical report.												
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM												
1-Methylnaphthalene	ND	ug/L	1	U	0.10	0.10	0.021		SW8270C	12/23/2021 14:07/jph	SV5975.I_211223A : 8	162392
1-Methylnaphthalene	ND	ug/L	1	U	0.10	0.099	0.020		SW8270C	12/20/2021 23:10/jph	SV5975.I_211220A : 15	162302
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.10	0.018		SW8270C	12/23/2021 14:07/jph	SV5975.I_211223A : 8	162392
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.099	0.017		SW8270C	12/20/2021 23:10/jph	SV5975.I_211220A : 15	162302
Naphthalene	ND	ug/L	1	U	0.10	0.10	0.029		SW8270C	12/23/2021 14:07/jph	SV5975.I_211223A : 8	162392
Naphthalene	ND	ug/L	1	U	0.10	0.099	0.029		SW8270C	12/20/2021 23:10/jph	SV5975.I_211220A : 15	162302
Surr: 2-Fluorobiphenyl	78.0	%REC	20		53-106				SW8270C	12/23/2021 14:40/jph	SV5975.I_211223A : 9	162392
Surr: 2-Fluorobiphenyl	38.0	%REC	20	S	53-106				SW8270C	12/20/2021 23:43/jph	SV5975.I_211220A : 16	162302
Surr: Nitrobenzene-d5	50.0	%REC	20	S	55-111				SW8270C	12/23/2021 14:40/jph	SV5975.I_211223A : 9	162392
Surr: Nitrobenzene-d5	37.0	%REC	20	S	55-111				SW8270C	12/20/2021 23:43/jph	SV5975.I_211220A : 16	162302
Surr: Terphenyl-d14	91.0	%REC	20		58-132				SW8270C	12/23/2021 14:40/jph	SV5975.I_211223A : 9	162392

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21121402-001
Client: AECOM - Honolulu
Collection Date: 12/13/2021 17:10
Client Sample ID: ERH2186 (RHMW06)
Date Received: 12/16/2021
Project: CV18F0126/60571032.02.20.01
Report Date: 01/27/2022
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM												
Surr: Terphenyl-d14	70.0	%REC	20		58-132				SW8270C	12/20/2021 23:43/jph	SV5975.I_211220A : 16	162302

- Due to low surrogate recoveries in the original analysis, the sample was re-extracted and re-analyzed. Both the original and re-extracted results are included in the analytical report.
- Due to low surrogate recoveries in the original analysis, the sample was re-extracted and re-analyzed. The re-extraction prep hold time was exceeded by 0.790 days. Both the original and re-extracted results are included in the analytical report.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2197 (OWDFMW01)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-002
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.2 to 0.2	ND	mg/L	1	U	0.50	0.50	0.17		SW9060A	12/22/2021 19:29/eli-ca	SUB-C278180 : 6	C_R278180
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	12/20/2021 13:35/car	ICPMS207-B_211220A : 27	162274
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Bromobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Bromodichloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Bromomethane	ND	ug/L	1	U	1.0	0.50	0.25		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Chlorobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.25	0.084		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Chloroform	0.16	ug/L	1	J	1.0	0.25	0.079		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.088		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.089		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.20		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.083		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.094		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.085		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Ethylbenzene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	2.2		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2197 (OWDFMW01)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-002
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Styrene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.087		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Tetrachloroethene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Toluene	ND	ug/L	1	U	1.0	0.25	0.075		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Trichloroethene	ND	ug/L	1	U	1.0	0.25	0.099		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.38		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Surr: Dibromofluoromethane	104.0	%REC	1		80-119				SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Surr: 1,2-Dichloroethane-d4	103.0	%REC	1		81-118				SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Surr: Toluene-d8	102.0	%REC	1		89-112				SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
Surr: p-Bromofluorobenzene	106.0	%REC	1		85-114				SW8260B	12/17/2021 13:57/sbd	VOA5975C.I_211217B : 8	R372427
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	12/17/2021 17:08/clt	GECD.I_211217A : 14	162287
Surr: 1,1,1,2-Tetrachloroethane	89.0	%REC	1		70-130				SW8011	12/17/2021 17:08/clt	GECD.I_211217A : 14	162287
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	12/17/2021 12:13/jp	PE 1_211217A : 6	R372029
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	12/17/2021 12:13/jp	PE 1_211217A : 6	R372029
Surr: Trifluorotoluene	79.0	%REC	1		70-130				SW8015C	12/17/2021 12:13/jp	PE 1_211217A : 6	R372029
- 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)	0.13	mg/L	1	J	0.31	0.16	0.040		SW8015C	12/18/2021 13:10/amn	GCFID-HP5-B_211217A : 6	162268
Diesel Range Organics (SGT-C10 to C24)	ND	mg/L	1	U	0.31	0.12	0.040		SW8015C	12/21/2021 09:10/amn	GCFID-HP5-B_211220B : 12	162268
Oil Range Hydrocarbons (C24 to C40)	ND	mg/L	1	U	0.31	0.16	0.091		SW8015C	12/18/2021 13:10/amn	GCFID-HP5-B_211217A : 6	162268
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.31	0.16	0.091		SW8015C	12/21/2021 09:10/amn	GCFID-HP5-B_211220B : 12	162268
Total Extractable Hydrocarbons	0.24	mg/L	1	J	0.31	0.16	0.078		SW8015C	12/18/2021 13:10/amn	GCFID-HP5-B_211217A : 6	162268
Total Extractable Hydrocarbons (SGT)	0.035	mg/L	1	J	0.31	0.12	0.034		SW8015C	12/21/2021 09:10/amn	GCFID-HP5-B_211220B : 12	162268
Surr: o-Terphenyl	90.0	%REC	1		56-125				SW8015C	12/18/2021 13:10/amn	GCFID-HP5-B_211217A : 6	162268

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21121402-002
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2197 (OWDFMW01)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Surr: o-Terphenyl (SGT)	94.0	%REC	1		56-125				SW8015C	12/21/2021 09:10/amn	GCFID-HP5-B_211220B : 12	162268
Surr: n-Triacontane	93.0	%REC	1		50-150				SW8015C	12/18/2021 13:10/amn	GCFID-HP5-B_211217A : 6	162268
Surr: n-Triacontane (SGT)	88.0	%REC	1		50-150				SW8015C	12/21/2021 09:10/amn	GCFID-HP5-B_211220B : 12	162268
- 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	12/16/2021 15:06/jdw	FID-HEADSPACE_211216B : 6	R371986
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.2		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.1		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
1-Methylnaphthalene	ND	ug/L	1	U	10	5.2	2.5		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.2	2.3		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.2	2.7		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.2	1.8		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.2	1.8		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
2,4-Dinitrophenol	ND	ug/L	1	U	10	10	4.4		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.2	3.2		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
2,6-Dinitrotoluene	ND	ug/L	1	U	10	5.2	3.3		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
2-Chloronaphthalene	ND	ug/L	1	U	10	5.2	2.2		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
2-Chlorophenol	ND	ug/L	1	U	10	5.2	2.6		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
2-Methylnaphthalene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
2-Nitrophenol	ND	ug/L	1	U	10	5.2	2.5		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
3,3´-Dichlorobenzidine	ND	ug/L	1	U	10	5.2	2.2		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	10	2.4		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	5.2	1.8		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.2	1.5		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
4-Chlorophenol	ND	ug/L	1	U	10	5.2	2.7		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.2	2.1		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
4-Nitrophenol	ND	ug/L	1	U	10	10	2.6		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Acenaphthene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Acenaphthylene	ND	ug/L	1	U	10	5.2	1.6		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Anthracene	ND	ug/L	1	U	10	5.2	1.3		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Azobenzene	ND	ug/L	1	U	10	5.2	1.1		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Benzidine	ND	ug/L	1	U	10	10	7.0		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Benzo(a)anthracene	ND	ug/L	1	U	10	5.2	0.89		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Benzo(a)pyrene	ND	ug/L	1	U	10	5.2	1.3		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Benzo(b)fluoranthene	ND	ug/L	1	U	10	5.2	0.94		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2197 (OWDFMW01)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-002
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Benzo(g,h,i)perylene	ND	ug/L	1	U	10	5.2	1.1		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Benzo(k)fluoranthene	ND	ug/L	1	U	10	5.2	1.0		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.2	1.4		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.2	2.7		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.2	1.5		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	5.2	2.0		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Butylbenzylphthalate	ND	ug/L	1	U	10	5.2	1.6		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Chrysene	ND	ug/L	1	U	10	5.2	1.2		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Di-n-butyl phthalate	ND	ug/L	1	U	10	5.2	0.97		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.2	1.4		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Dibenzo(a,h)anthracene	ND	ug/L	1	U	10	5.2	1.2		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Diethyl phthalate	ND	ug/L	1	U	10	5.2	2.3		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Dimethyl phthalate	ND	ug/L	1	U	10	5.2	1.8		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Fluoranthene	ND	ug/L	1	U	10	5.2	0.92		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Fluorene	ND	ug/L	1	U	10	5.2	1.9		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Hexachlorobenzene	ND	ug/L	1	U	10	5.2	1.4		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Hexachlorobutadiene	ND	ug/L	1	U	10	5.2	2.4		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.2	3.1		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Hexachloroethane	ND	ug/L	1	U	10	5.2	1.9		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	10	5.2	1.3		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Isophorone	ND	ug/L	1	U	10	5.2	1.7		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
m+p-Cresols	ND	ug/L	1	U	10	5.2	1.9		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.2	1.6		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.2	1.6		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.2	1.2		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Naphthalene	ND	ug/L	1	U	10	5.2	1.8		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Nitrobenzene	ND	ug/L	1	U	10	5.2	2.4		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
o-Cresol	ND	ug/L	1	U	10	5.2	1.9		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Pentachlorophenol	ND	ug/L	1	U	10	10	4.4		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Phenanthrene	ND	ug/L	1	U	10	5.2	0.82		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Phenol	ND	ug/L	1	U	10	5.2	1.5		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Pyrene	ND	ug/L	1	U	10	5.2	0.96		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Pyridine	ND	ug/L	1	U	10	5.2	3.3		SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Surr: 2,4,6-Tribromophenol	59.0	%REC	1	J	43-140				SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Surr: 2-Fluorophenol	27.0	%REC	1	J	19-119				SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302
Surr: Phenol-d5	33.0	%REC	1	J	10-65				SW8270C	12/21/2021 01:46/dsm	SV5973N.I_211220A : 13	162302

- The surrogate additions were added at a lower concentration to recover within the calibrated range for Low Level 8270C SIM analysis. Because of this, the surrogates recovered at or slightly below the calibrated range by normal 8270C scan analysis.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21121402-002
Client: AECOM - Honolulu
Collection Date: 12/13/2021 14:35
Client Sample ID: ERH2197 (OWDFMW01)
Date Received: 12/16/2021
Project: CV18F0126/60571032.02.20.01
Report Date: 01/27/2022
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM												
1-Methylnaphthalene	ND	ug/L	1	U	0.10	0.10	0.021		SW8270C	12/21/2021 00:15/jph	SV5975.I_211220A : 17	162302
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.10	0.018		SW8270C	12/21/2021 00:15/jph	SV5975.I_211220A : 17	162302
Naphthalene	ND	ug/L	1	U	0.10	0.10	0.030		SW8270C	12/21/2021 00:15/jph	SV5975.I_211220A : 17	162302
Surr: 2-Fluorobiphenyl	62.0	%REC	1		53-106				SW8270C	12/21/2021 00:15/jph	SV5975.I_211220A : 17	162302
Surr: Nitrobenzene-d5	46.0	%REC	1	S	55-111				SW8270C	12/21/2021 00:15/jph	SV5975.I_211220A : 17	162302
Surr: Terphenyl-d14	86.0	%REC	1		58-132				SW8270C	12/21/2021 00:15/jph	SV5975.I_211220A : 17	162302

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2203 (RHMW14-03)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-003
Collection Date: 12/13/2021 15:15
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.8 to 0.9	0.85	mg/L	1		0.50	0.50	0.17		SW9060A	12/22/2021 20:10/eli-ca	SUB-C278180 : 7	C_R278180
METALS, TOTAL												
Lead	0.00012	mg/L	1	J	0.001	0.0001	0.00008		SW6020	12/20/2021 13:42/car	ICPMS207-B_211220A : 28	162274
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Bromobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Bromodichloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Bromomethane	ND	ug/L	1	U	1.0	0.50	0.25		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Chlorobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.25	0.084		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Chloroform	ND	ug/L	1	U	1.0	0.25	0.079		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.088		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.089		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.20		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.083		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.094		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.085		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Ethylbenzene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	2.2		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2203 (RHMW14-03)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-003
Collection Date: 12/13/2021 15:15
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Styrene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.087		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Tetrachloroethene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Toluene	ND	ug/L	1	U	1.0	0.25	0.075		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Trichloroethene	ND	ug/L	1	U	1.0	0.25	0.099		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.38		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Surr: Dibromofluoromethane	103.0	%REC	1		80-119				SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Surr: 1,2-Dichloroethane-d4	103.0	%REC	1		81-118				SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Surr: Toluene-d8	103.0	%REC	1		89-112				SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
Surr: p-Bromofluorobenzene	104.0	%REC	1		85-114				SW8260B	12/17/2021 14:24/sbd	VOA5975C.I_211217B : 9	R372427
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	12/17/2021 17:28/clt	GECD.I_211217A : 15	162287
Surr: 1,1,1,2-Tetrachloroethane	92.0	%REC	1		70-130				SW8011	12/17/2021 17:28/clt	GECD.I_211217A : 15	162287
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	139	ug/L	5		100	44	12		SW8015C	12/17/2021 15:04/jp	PE 1_211217A : 7	R372029
Total Purgeable Hydrocarbons	4550	ug/L	5		100	50	18		SW8015C	12/17/2021 15:04/jp	PE 1_211217A : 7	R372029
Surr: Trifluorotoluene	78.0	%REC	5		70-130				SW8015C	12/17/2021 15:04/jp	PE 1_211217A : 7	R372029
- 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)	0.64	mg/L	1		0.30	0.15	0.038		SW8015C	12/20/2021 13:06/amn	GCFID-HP5-B_211220A : 3	162268
Diesel Range Organics (SGT-C10 to C24)	ND	mg/L	1	U	0.30	0.12	0.038		SW8015C	12/20/2021 23:51/amn	GCFID-HP5-B_211220B : 3	162268
Oil Range Hydrocarbons (C24 to C40)	0.62	mg/L	1		0.30	0.15	0.086		SW8015C	12/20/2021 13:06/amn	GCFID-HP5-B_211220A : 3	162268
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.15	0.086		SW8015C	12/20/2021 23:51/amn	GCFID-HP5-B_211220B : 3	162268
Total Extractable Hydrocarbons	1.4	mg/L	1		0.30	0.15	0.073		SW8015C	12/20/2021 13:06/amn	GCFID-HP5-B_211220A : 3	162268
Total Extractable Hydrocarbons (SGT)	ND	mg/L	1	U	0.30	0.12	0.032		SW8015C	12/20/2021 23:51/amn	GCFID-HP5-B_211220B : 3	162268
Surr: o-Terphenyl	76.0	%REC	1		56-125				SW8015C	12/20/2021 13:06/amn	GCFID-HP5-B_211220A : 3	162268

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21121402-003
Collection Date: 12/13/2021 15:15
Date Received: 12/16/2021
Report Date: 01/27/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2203 (RHMW14-03)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Surr: o-Terphenyl (SGT)	76.0	%REC	1		56-125				SW8015C	12/20/2021 23:51/amn	GCFID-HP5-B_211220B : 3	162268
Surr: n-Triacontane	78.0	%REC	1		50-150				SW8015C	12/20/2021 13:06/amn	GCFID-HP5-B_211220A : 3	162268
Surr: n-Triacontane (SGT)	73.0	%REC	1		50-150				SW8015C	12/20/2021 23:51/amn	GCFID-HP5-B_211220B : 3	162268
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.9	1.9		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.9	1.9		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.9	2.1		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.9	2.0		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
1-Methylnaphthalene	ND	ug/L	1	U	10	4.9	2.3		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.9	2.2		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.9	2.6		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.9	1.7		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.9	1.7		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.8	4.2		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.9	3.0		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
2,6-Dinitrotoluene	ND	ug/L	1	U	10	4.9	3.1		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
2-Chloronaphthalene	ND	ug/L	1	U	10	4.9	2.1		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
2-Chlorophenol	ND	ug/L	1	U	10	4.9	2.4		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
2-Methylnaphthalene	ND	ug/L	1	U	10	4.9	1.9		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
2-Nitrophenol	ND	ug/L	1	U	10	4.9	2.3		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
3,3´-Dichlorobenzidine	ND	ug/L	1	U	10	4.9	2.1		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.8	2.3		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	4.9	1.7		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.9	1.4		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
4-Chlorophenol	ND	ug/L	1	U	10	4.9	2.6		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.9	2.0		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
4-Nitrophenol	ND	ug/L	1	U	10	9.8	2.4		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Acenaphthene	ND	ug/L	1	U	10	4.9	1.9		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Acenaphthylene	ND	ug/L	1	U	10	4.9	1.5		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Anthracene	ND	ug/L	1	U	10	4.9	1.2		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Azobenzene	ND	ug/L	1	U	10	4.9	1.1		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Benzidine	ND	ug/L	1	U	10	9.8	6.6		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Benzo(a)anthracene	ND	ug/L	1	U	10	4.9	0.84		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Benzo(a)pyrene	ND	ug/L	1	U	10	4.9	1.2		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Benzo(b)fluoranthene	ND	ug/L	1	U	10	4.9	0.88		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Benzo(g,h,i)perylene	ND	ug/L	1	U	10	4.9	0.99		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Benzo(k)fluoranthene	ND	ug/L	1	U	10	4.9	0.95		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.9	1.3		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2203 (RHMW14-03)
Project: CV18F0126/60571032.02.20.01
Matrix: Ground Water

Lab ID: B21121402-003
Collection Date: 12/13/2021 15:15
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.9	2.5		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.9	1.5		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.9	1.9		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Butylbenzylphthalate	ND	ug/L	1	U	10	4.9	1.5		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Chrysene	ND	ug/L	1	U	10	4.9	1.1		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.9	0.91		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.9	1.3		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Dibenzo(a,h)anthracene	ND	ug/L	1	U	10	4.9	1.1		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Diethyl phthalate	ND	ug/L	1	U	10	4.9	2.1		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Dimethyl phthalate	ND	ug/L	1	U	10	4.9	1.7		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Fluoranthene	ND	ug/L	1	U	10	4.9	0.87		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Fluorene	ND	ug/L	1	U	10	4.9	1.8		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Hexachlorobenzene	ND	ug/L	1	U	10	4.9	1.3		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Hexachlorobutadiene	ND	ug/L	1	U	10	4.9	2.3		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.9	2.9		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Hexachloroethane	ND	ug/L	1	U	10	4.9	1.8		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	10	4.9	1.2		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Isophorone	ND	ug/L	1	U	10	4.9	1.6		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
m+p-Cresols	ND	ug/L	1	U	10	4.9	1.7		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.9	1.5		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.9	1.5		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.9	1.1		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Naphthalene	ND	ug/L	1	U	10	4.9	1.7		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Nitrobenzene	ND	ug/L	1	U	10	4.9	2.3		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
o-Cresol	ND	ug/L	1	U	10	4.9	1.8		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Pentachlorophenol	ND	ug/L	1	U	10	9.8	4.2		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Phenanthrene	ND	ug/L	1	U	10	4.9	0.77		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Phenol	ND	ug/L	1	U	10	4.9	1.4		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Pyrene	ND	ug/L	1	U	10	4.9	0.90		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Pyridine	ND	ug/L	1	U	10	4.9	3.2		SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Surr: 2,4,6-Tribromophenol	55.0	%REC	1	J	43-140				SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Surr: 2-Fluorophenol	26.0	%REC	1	J	19-119				SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
Surr: Phenol-d5	24.0	%REC	1	J	10-65				SW8270C	12/21/2021 02:19/dsm	SV5973N.I_211220A : 14	162302
- The surrogate additions were added at a lower concentration to recover within the calibrated range for Low Level 8270C SIM analysis. Because of this, the surrogates recovered at or slightly below the calibrated range by normal 8270C scan analysis.												
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM												
1-Methylnaphthalene	ND	ug/L	1	U	0.10	0.098	0.020		SW8270C	12/21/2021 01:20/jph	SV5975.I_211220A : 19	162302
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.098	0.017		SW8270C	12/21/2021 01:20/jph	SV5975.I_211220A : 19	162302
Naphthalene	ND	ug/L	1	U	0.10	0.098	0.028		SW8270C	12/21/2021 01:20/jph	SV5975.I_211220A : 19	162302

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21121402-003
Client: AECOM - Honolulu
Collection Date: 12/13/2021 15:15
Client Sample ID: ERH2203 (RHMW14-03)
Date Received: 12/16/2021
Project: CV18F0126/60571032.02.20.01
Report Date: 01/27/2022
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM												
Surr: 2-Fluorobiphenyl	55.0	%REC	1		53-106				SW8270C	12/21/2021 01:20/jph	SV5975.I_211220A : 19	162302
Surr: Nitrobenzene-d5	49.0	%REC	1	S	55-111				SW8270C	12/21/2021 01:20/jph	SV5975.I_211220A : 19	162302
Surr: Terphenyl-d14	88.0	%REC	1		58-132				SW8270C	12/21/2021 01:20/jph	SV5975.I_211220A : 19	162302

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2196 Trip Blank-14525 8260
Project: CV18F0126/60571032.02.20.01
Matrix: Trip Blank

Lab ID: B21121402-004
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

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	0.25	0.12		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Bromobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Bromodichloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Bromomethane	ND	ug/L	1	U	1.0	0.50	0.25		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Chlorobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.25	0.084		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Chloroform	ND	ug/L	1	U	1.0	0.25	0.079		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.088		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.089		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.20		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.083		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.094		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.085		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Ethylbenzene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	2.2		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Styrene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.087		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Tetrachloroethene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21121402-004
Client: AECOM - Honolulu
Collection Date: 12/13/2021 14:35
Client Sample ID: ERH2196 Trip Blank-14525 8260
Date Received: 12/16/2021
Project: CV18F0126/60571032.02.20.01
Report Date: 01/27/2022
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Toluene	ND	ug/L	1	U	1.0	0.25	0.075		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Trichloroethene	ND	ug/L	1	U	1.0	0.25	0.099		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.38		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Surr: Dibromofluoromethane	107.0	%REC	1		80-119				SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Surr: 1,2-Dichloroethane-d4	102.0	%REC	1		81-118				SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Surr: Toluene-d8	104.0	%REC	1		89-112				SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427
Surr: p-Bromofluorobenzene	108.0	%REC	1		85-114				SW8260B	12/17/2021 12:35/sbd	VOA5975C.I_211217B : 5	R372427

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2196 Trip Blank-14525 GRO
Project: CV18F0126/60571032.02.20.01
Matrix: Trip Blank

Lab ID: B21121402-006
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	12/17/2021 16:13/jp	PE 1_211217A : 8	R372029
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	12/17/2021 16:13/jp	PE 1_211217A : 8	R372029
Surr: Trifluorotoluene	80.0	%REC	1		70-130				SW8015C	12/17/2021 16:13/jp	PE 1_211217A : 8	R372029

- 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: ERH2196 Client Trip Blank 8011
Project: CV18F0126/60571032.02.20.01
Matrix: Trip Blank

Lab ID: B21121402-008
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

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	12/17/2021 17:48/clt	GECD.I_211217A : 16	162287
Surr: 1,1,1,2-Tetrachloroethane	89.0	%REC	1		70-130				SW8011	12/17/2021 17:48/clt	GECD.I_211217A : 16	162287

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2196 Trip Blank-14525 Methane
Project: CV18F0126/60571032.02.20.01
Matrix: Trip Blank

Lab ID: B21121402-009
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

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	12/16/2021 15:24/jdw	FID-HEADSPACE_211216B : 8	R371986

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2202 Trip Blank-14525 8260
Project: CV18F0126/60571032.02.20.01
Matrix: Trip Blank

Lab ID: B21121402-010
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

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	0.25	0.12		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Bromobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Bromodichloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Bromomethane	ND	ug/L	1	U	1.0	0.50	0.25		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Chlorobenzene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.25	0.084		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Chloroform	ND	ug/L	1	U	1.0	0.25	0.079		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.088		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.25	0.086		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.089		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.20		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.083		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.094		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.25	0.085		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Ethylbenzene	ND	ug/L	1	U	1.0	0.25	0.091		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	2.2		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Styrene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.087		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Tetrachloroethene	ND	ug/L	1	U	1.0	0.25	0.067		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B21121402-010
Client: AECOM - Honolulu
Collection Date: 12/13/2021 14:35
Client Sample ID: ERH2202 Trip Blank-14525 8260
Date Received: 12/16/2021
Project: CV18F0126/60571032.02.20.01
Report Date: 01/27/2022
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Toluene	ND	ug/L	1	U	1.0	0.25	0.075		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Trichloroethene	ND	ug/L	1	U	1.0	0.25	0.099		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.38		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Surr: Dibromofluoromethane	105.0	%REC	1		80-119				SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Surr: 1,2-Dichloroethane-d4	102.0	%REC	1		81-118				SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Surr: Toluene-d8	103.0	%REC	1		89-112				SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	12/17/2021 13:03/sbd	VOA5975C.I_211217B : 6	R372427

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2203 Client Trip Blank GRO
Project: CV18F0126/60571032.02.20.01
Matrix: Trip Blank

Lab ID: B21121402-012
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	12/18/2021 13:08/jp	PE 1_211217A : 17	R372029
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	12/18/2021 13:08/jp	PE 1_211217A : 17	R372029
Surr: Trifluorotoluene	78.0	%REC	1		70-130				SW8015C	12/18/2021 13:08/jp	PE 1_211217A : 17	R372029

- 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: ERH2202 Client Trip Blank 8011
Project: CV18F0126/60571032.02.20.01
Matrix: Trip Blank

Lab ID: B21121402-013
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

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	0.0049	0.0025		SW8011	12/17/2021 18:07/clt	GECD.I_211217A : 17	162287
Surr: 1,1,1,2-Tetrachloroethane	97.0	%REC	1		70-130				SW8011	12/17/2021 18:07/clt	GECD.I_211217A : 17	162287

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2202 Client Trip Blank Methane
Project: CV18F0126/60571032.02.20.01
Matrix: Trip Blank

Lab ID: B21121402-014
Collection Date: 12/13/2021 14:35
Date Received: 12/16/2021
Report Date: 01/27/2022

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	12/16/2021 15:34/jdw	FID-HEADSPACE_211216B : 9	R371986

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SUB-C278180: 3 **SampType:** Method Blank **Batch ID:** C_R278180
Method: SW9060A **Analysis Date:** 12/22/2021 17:32 **Prep Date:**
Lab ID: MBLK **Units:** mg/L **Prep Method:**

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

Associated Samples: **B21121402-001G, B21121402-002G, B21121402-003G**
- TOC Range is 0.1 to 0.1

Run ID: Run Order: SUB-C278180: 1 **SampType:** Laboratory Control Sample **Batch ID:** C_R278180
Method: SW9060A **Analysis Date:** 12/22/2021 16:10 **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: **B21121402-001G, B21121402-002G, B21121402-003G**
- TOC Range is 5.0 to 5.2

Run ID: Run Order: SUB-C278180: 4 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R278180
Method: SW9060A **Analysis Date:** 12/22/2021 18:11 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.2	0.50	5.0		103.0	90	110				

Associated Samples: **B21121402-001G, B21121402-002G, B21121402-003G**
- TOC Range is 5.1 to 5.2

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: ICPMS207-B_211220A: 24 **SampType:** Method Blank **Batch ID:** 162274
Method: SW6020 **Analysis Date:** 12/20/2021 13:17 **Prep Date:** 12/16/2021 15:59
Lab ID: MB-162274 **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: **B21121402-001C, B21121402-002C, B21121402-003C**

Run ID: Run Order: ICPMS207-B_211220A: 25 **SampType:** Laboratory Control Sample **Batch ID:** 162274
Method: SW6020 **Analysis Date:** 12/20/2021 13:23 **Prep Date:** 12/16/2021 15:59
Lab ID: LCS4-162274 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.103	0.001	0.100		103.0	88	115				

Associated Samples: **B21121402-001C, B21121402-002C, B21121402-003C**

Run ID: Run Order: ICPMS207-B_211220A: 32 **SampType:** Sample Matrix Spike **Batch ID:** 162274
Method: SW6020 **Analysis Date:** 12/20/2021 14:06 **Prep Date:** 12/16/2021 15:59
Lab ID: B21121402-001CMS4 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.099	0.001	0.100	0.001	99.0	88	115				

Associated Samples: **B21121402-001C, B21121402-002C, B21121402-003C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: ICPMS207-B_211220A: 33 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162274
Method: SW6020 **Analysis Date:** 12/20/2021 14:12 **Prep Date:** 12/16/2021 15:59
Lab ID: B21121402-001CMSD4 **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	0.001	103.0	88	115	0.099	4.6	20.0	

Associated Samples: **B21121402-001C, B21121402-002C, B21121402-003C**

Run ID: Run Order: ICPMS207-B_211220A: 31 **SampType:** Post Digestion/Distillation Spike **Batch ID:** 162274
Method: SW6020 **Analysis Date:** 12/20/2021 14:00 **Prep Date:** 12/16/2021 15:59
Lab ID: B21121402-001CPDS1 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.049	0.001	0.052	0.001	95.0	80	120				

Associated Samples: **B21121402-001C, B21121402-002C, B21121402-003C**

Run ID: Run Order: ICPMS207-B_211220A: 30 **SampType:** Serial Dilution **Batch ID:** 162274
Method: SW6020 **Analysis Date:** 12/20/2021 13:54 **Prep Date:** 12/16/2021 15:59
Lab ID: B21121402-001CDIL **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						0.001		10.0	N

Associated Samples: **B21121402-001C, B21121402-002C, B21121402-003C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: ICPMS207-B_211220A: 22 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372070
Method: SW6020 **Analysis Date:** 12/20/2021 13:05 **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	0.049	0.001	0.050		98.0	90	110				

Associated Samples: **B21121402-001C, B21121402-002C, B21121402-003C**

Run ID: Run Order: ICPMS207-B_211220A: 34 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372070
Method: SW6020 **Analysis Date:** 12/20/2021 14:18 **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	0.047	0.001	0.050		94.0	90	110				

Associated Samples: **B21121402-001C, B21121402-002C, B21121402-003C**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 4 **SampType:** Method Blank **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 12:08 **Prep Date:**
Lab ID: MBLK121721_ **Units:** ug/L **Prep Method:**

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

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 4 **SampType:** Method Blank **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 12:08 **Prep Date:**
Lab ID: MBLK121721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,2-Dichloropropane	ND	0.50									
1,1-Dichloropropene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
trans-1,3-Dichloropropene	ND	0.50									
Ethylbenzene	ND	0.50									
Methyl tert-butyl ether (MTBE)	ND	0.50									
Methyl ethyl ketone	ND	10									
Methylene chloride	ND	0.50									
Styrene	ND	0.50									
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
Vinyl chloride	ND	0.50									
m+p-Xylenes	ND	0.50									
o-Xylene	ND	0.50									
Xylenes, Total	ND	0.50									
Surr: 1,2-Dichloroethane-d4	10	0.50	10		100.0	81	118				
Surr: Dibromofluoromethane	10	0.50	10		103.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10		104.0	85	114				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 4 **SampType:** Method Blank **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 12:08 **Prep Date:**
Lab ID: MBLK121721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10	0.50	10		104.0	89	112				

Associated Samples: **B21121402-001D, B21121402-002D, B21121402-003D, B21121402-004A, B21121402-010A**

Run ID: Run Order: VOA5975C.I_211217B: 3 **SampType:** Laboratory Control Sample **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 11:13 **Prep Date:**
Lab ID: LCS121721_ **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		97.0	79	120				
Bromobenzene	5.3	0.50	5.0		106.0	80	120				
Bromochloromethane	5.0	0.50	5.0		100.0	78	123				
Bromodichloromethane	5.1	0.50	5.0		102.0	79	125				
Bromoform	5.3	0.50	5.0		106.0	66	130				
Bromomethane	4.9	0.50	5.0		98.0	53	141				
Carbon tetrachloride	4.8	0.50	5.0		95.0	72	136				
Chlorobenzene	5.2	0.50	5.0		103.0	82	118				
Chlorodibromomethane	5.0	0.50	5.0		101.0	74	126				
Chloroethane	4.6	0.50	5.0		93.0	60	138				
Chloroform	4.6	0.50	5.0		91.0	79	124				
Chloromethane	4.6	0.50	5.0		92.0	50	139				
1,2-Dibromoethane	5.0	0.50	5.0		99.0	78	122				
2-Chlorotoluene	5.0	0.50	5.0		100.0	79	122				
Dibromomethane	5.1	0.50	5.0		102.0	79	123				
1,2-Dichlorobenzene	5.0	0.50	5.0		101.0	80	119				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 3 **SampType:** Laboratory Control Sample **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 11:13 **Prep Date:**
Lab ID: LCS121721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
4-Chlorotoluene	5.2	0.50	5.0		105.0	78	122				
1,3-Dichlorobenzene	5.1	0.50	5.0		103.0	80	119				
1,4-Dichlorobenzene	5.0	0.50	5.0		101.0	79	118				
Dichlorodifluoromethane	4.5	0.50	5.0		89.0	32	152				
1,1-Dichloroethane	5.0	0.50	5.0		100.0	77	125				
1,2-Dichloroethane	4.6	0.50	5.0		93.0	73	128				
1,1-Dichloroethene	4.7	0.50	5.0		93.0	71	131				
cis-1,2-Dichloroethene	4.7	0.50	5.0		95.0	78	123				
trans-1,2-Dichloroethene	4.8	0.50	5.0		96.0	75	124				
1,2-Dichloropropane	5.0	0.50	5.0		101.0	78	122				
1,3-Dichloropropane	5.0	0.50	5.0		100.0	80	119				
2,2-Dichloropropane	5.0	0.50	5.0		100.0	60	139				
1,1-Dichloropropene	4.6	0.50	5.0		91.0	79	125				
cis-1,3-Dichloropropene	4.9	0.50	5.0		99.0	75	124				
trans-1,3-Dichloropropene	5.3	0.50	5.0		105.0	73	127				
Ethylbenzene	5.0	0.50	5.0		101.0	79	121				
Methyl tert-butyl ether (MTBE)	4.8	0.50	5.0		95.0	71	124				
Methyl ethyl ketone	52	10	50		104.0	56	143				
Methylene chloride	4.6	0.50	5.0		91.0	74	124				
Styrene	5.4	0.50	5.0		108.0	78	123				
1,1,1,2-Tetrachloroethane	5.2	0.50	5.0		104.0	78	124				
1,1,2,2-Tetrachloroethane	5.3	0.50	5.0		106.0	71	121				
Tetrachloroethene	5.1	0.50	5.0		101.0	74	129				
Toluene	5.1	0.50	5.0		103.0	80	121				
1,1,1-Trichloroethane	4.8	0.50	5.0		95.0	74	131				
1,1,2-Trichloroethane	5.1	0.50	5.0		102.0	80	119				
Trichloroethene	4.8	0.50	5.0		97.0	79	123				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 3 **SampType:** Laboratory Control Sample **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 11:13 **Prep Date:**
Lab ID: LCS121721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Trichlorofluoromethane	4.7	0.50	5.0		94.0	65	141				
1,2,3-Trichloropropane	4.9	0.50	5.0		99.0	73	125				
Vinyl chloride	4.7	0.50	5.0		94.0	58	137				
m+p-Xylenes	10	0.50	10		102.0	80	121				
o-Xylene	5.3	0.50	5.0		106.0	78	122				
Xylenes, Total	15	0.50	15		103.0	79	121				
Surr: 1,2-Dichloroethane-d4	10	0.50	10		101.0	81	118				
Surr: Dibromofluoromethane	10	0.50	10		103.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10		104.0	85	114				
Surr: Toluene-d8	11	0.50	10		108.0	89	112				

Associated Samples: **B21121402-001D, B21121402-002D, B21121402-003D, B21121402-004A, B21121402-010A**

Run ID: Run Order: VOA5975C.I_211217B: 11 **SampType:** Sample Matrix Spike **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 15:19 **Prep Date:**
Lab ID: B21121402-001DMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.0	0.50	5.0	0.0	99.0	79	120				
Bromobenzene	5.2	0.50	5.0	0.0	104.0	80	120				
Bromochloromethane	4.7	0.50	5.0	0.0	94.0	78	123				
Bromodichloromethane	5.1	0.50	5.0	0.0	102.0	79	125				
Bromoform	5.3	0.50	5.0	0.0	107.0	66	130				
Bromomethane	4.7	0.50	5.0	0.0	93.0	53	141				
Carbon tetrachloride	4.8	0.50	5.0	0.0	96.0	72	136				
Chlorobenzene	5.2	0.50	5.0	0.0	103.0	82	118				
Chlorodibromomethane	4.9	0.50	5.0	0.0	99.0	74	126				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 11 **SampType:** Sample Matrix Spike **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 15:19 **Prep Date:**
Lab ID: B21121402-001DMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Chloroethane	4.7	0.50	5.0	0.0	93.0	60	138				
Chloroform	4.6	0.50	5.0	0.0	93.0	79	124				
Chloromethane	4.8	0.50	5.0	0.0	96.0	50	139				
1,2-Dibromoethane	5.0	0.50	5.0	0.0	99.0	78	122				
2-Chlorotoluene	5.1	0.50	5.0	0.0	102.0	79	122				
Dibromomethane	5.1	0.50	5.0	0.0	102.0	79	123				
1,2-Dichlorobenzene	5.2	0.50	5.0	0.0	103.0	80	119				
4-Chlorotoluene	5.3	0.50	5.0	0.0	105.0	78	122				
1,3-Dichlorobenzene	5.3	0.50	5.0	0.0	107.0	80	119				
1,4-Dichlorobenzene	5.0	0.50	5.0	0.0	101.0	79	118				
Dichlorodifluoromethane	4.6	0.50	5.0	0.0	93.0	32	152				
1,1-Dichloroethane	5.0	0.50	5.0	0.0	100.0	77	125				
1,2-Dichloroethane	4.7	0.50	5.0	0.0	94.0	73	128				
1,1-Dichloroethene	4.7	0.50	5.0	0.0	95.0	71	131				
cis-1,2-Dichloroethene	4.8	0.50	5.0	0.0	96.0	78	123				
trans-1,2-Dichloroethene	5.0	0.50	5.0	0.0	99.0	75	124				
1,2-Dichloropropane	5.0	0.50	5.0	0.0	100.0	78	122				
1,3-Dichloropropane	4.9	0.50	5.0	0.0	99.0	80	119				
2,2-Dichloropropane	5.1	0.50	5.0	0.0	102.0	60	139				
1,1-Dichloropropene	4.5	0.50	5.0	0.0	91.0	79	125				
cis-1,3-Dichloropropene	4.7	0.50	5.0	0.0	94.0	75	124				
trans-1,3-Dichloropropene	5.1	0.50	5.0	0.0	102.0	73	127				
Ethylbenzene	5.1	0.50	5.0	0.0	101.0	79	121				
Methyl tert-butyl ether (MTBE)	4.7	0.50	5.0	0.0	93.0	71	124				
Methyl ethyl ketone	54	10	50	0.0	107.0	56	143				
Methylene chloride	4.6	0.50	5.0	0.0	92.0	74	124				
Styrene	5.4	0.50	5.0	0.0	107.0	78	123				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 11 **SampType:** Sample Matrix Spike **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 15:19 **Prep Date:**
Lab ID: B21121402-001DMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	5.0	0.50	5.0	0.0	99.0	78	124				
1,1,2,2-Tetrachloroethane	5.4	0.50	5.0	0.0	108.0	71	121				
Tetrachloroethene	5.2	0.50	5.0	0.0	103.0	74	129				
Toluene	5.1	0.50	5.0	0.0	103.0	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	100.0	80	119				
Trichloroethene	4.8	0.50	5.0	0.0	97.0	79	123				
Trichlorofluoromethane	4.8	0.50	5.0	0.0	96.0	65	141				
1,2,3-Trichloropropane	5.3	0.50	5.0	0.0	105.0	73	125				
Vinyl chloride	4.8	0.50	5.0	0.0	96.0	58	137				
m+p-Xylenes	10	0.50	10	0.0	102.0	80	121				
o-Xylene	5.4	0.50	5.0	0.0	107.0	78	122				
Xylenes, Total	16	0.50	15	0.0	104.0	79	121				
Surr: 1,2-Dichloroethane-d4	10	0.50	10	0.0	100.0	81	118				
Surr: Dibromofluoromethane	9.8	0.50	10	0.0	98.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10	0.0	104.0	85	114				
Surr: Toluene-d8	11	0.50	10	0.0	107.0	89	112				

Associated Samples: **B21121402-001D, B21121402-002D, B21121402-003D, B21121402-004A, B21121402-010A**

Run ID: Run Order: VOA5975C.I_211217B: 12 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 15:46 **Prep Date:**
Lab ID: B21121402-001DMSD **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	98.0	79	120	5.0	1.2	20.0	
Bromobenzene	5.1	0.50	5.0	0.0	102.0	80	120	5.2	1.5	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 12 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 15:46 **Prep Date:**
Lab ID: B21121402-001DMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Bromochloromethane	5.0	0.50	5.0	0.0	101.0	78	123	4.7	6.6	20.0	
Bromodichloromethane	5.0	0.50	5.0	0.0	100.0	79	125	5.1	1.9	20.0	
Bromoform	5.2	0.50	5.0	0.0	105.0	66	130	5.3	1.9	20.0	
Bromomethane	5.0	0.50	5.0	0.0	99.0	53	141	4.7	6.6	20.0	
Carbon tetrachloride	4.6	0.50	5.0	0.0	92.0	72	136	4.8	4.0	20.0	
Chlorobenzene	5.0	0.50	5.0	0.0	100.0	82	118	5.2	3.0	20.0	
Chlorodibromomethane	5.0	0.50	5.0	0.0	100.0	74	126	4.9	1.6	20.0	
Chloroethane	4.9	0.50	5.0	0.0	97.0	60	138	4.7	4.1	20.0	
Chloroform	4.6	0.50	5.0	0.0	92.0	79	124	4.6	0.5	20.0	
Chloromethane	4.9	0.50	5.0	0.0	99.0	50	139	4.8	2.7	20.0	
1,2-Dibromoethane	5.1	0.50	5.0	0.0	101.0	78	122	5.0	1.9	20.0	
2-Chlorotoluene	4.9	0.50	5.0	0.0	98.0	79	122	5.1	4.0	20.0	
Dibromomethane	4.8	0.50	5.0	0.0	95.0	79	123	5.1	6.5	20.0	
1,2-Dichlorobenzene	5.0	0.50	5.0	0.0	101.0	80	119	5.2	2.4	20.0	
4-Chlorotoluene	5.1	0.50	5.0	0.0	103.0	78	122	5.3	2.5	20.0	
1,3-Dichlorobenzene	5.1	0.50	5.0	0.0	103.0	80	119	5.3	3.8	20.0	
1,4-Dichlorobenzene	5.0	0.50	5.0	0.0	99.0	79	118	5.0	1.5	20.0	
Dichlorodifluoromethane	4.8	0.50	5.0	0.0	96.0	32	152	4.6	3.6	20.0	
1,1-Dichloroethane	4.8	0.50	5.0	0.0	96.0	77	125	5.0	3.6	20.0	
1,2-Dichloroethane	4.7	0.50	5.0	0.0	95.0	73	128	4.7	0.8	20.0	
1,1-Dichloroethene	4.7	0.50	5.0	0.0	93.0	71	131	4.7	1.4	20.0	
cis-1,2-Dichloroethene	4.8	0.50	5.0	0.0	96.0	78	123	4.8	0.3	20.0	
trans-1,2-Dichloroethene	4.7	0.50	5.0	0.0	95.0	75	124	5.0	4.8	20.0	
1,2-Dichloropropane	4.9	0.50	5.0	0.0	98.0	78	122	5.0	1.7	20.0	
1,3-Dichloropropane	4.9	0.50	5.0	0.0	98.0	80	119	4.9	0.9	20.0	
2,2-Dichloropropane	5.0	0.50	5.0	0.0	99.0	60	139	5.1	2.7	20.0	
1,1-Dichloropropene	4.4	0.50	5.0	0.0	87.0	79	125	4.5	4.1	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 12 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 15:46 **Prep Date:**
Lab ID: B21121402-001DMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	4.6	0.50	5.0	0.0	92.0	75	124	4.7	1.7	20.0	
trans-1,3-Dichloropropene	5.1	0.50	5.0	0.0	102.0	73	127	5.1	0.3	20.0	
Ethylbenzene	4.9	0.50	5.0	0.0	99.0	79	121	5.1	2.9	20.0	
Methyl tert-butyl ether (MTBE)	4.8	0.50	5.0	0.0	97.0	71	124	4.7	3.5	20.0	
Methyl ethyl ketone	54	10	50	0.0	107.0	56	143	54	0.3	20.0	
Methylene chloride	4.6	0.50	5.0	0.0	91.0	74	124	4.6	0.8	20.0	
Styrene	5.2	0.50	5.0	0.0	104.0	78	123	5.4	2.7	20.0	
1,1,1,2-Tetrachloroethane	5.0	0.50	5.0	0.0	100.0	78	124	5.0	1.0	20.0	
1,1,2,2-Tetrachloroethane	5.1	0.50	5.0	0.0	103.0	71	121	5.4	5.5	20.0	
Tetrachloroethene	5.0	0.50	5.0	0.0	99.0	74	129	5.2	3.8	20.0	
Toluene	5.0	0.50	5.0	0.0	100.0	80	121	5.1	3.1	20.0	
1,1,1-Trichloroethane	4.7	0.50	5.0	0.0	93.0	74	131	4.8	2.6	20.0	
1,1,2-Trichloroethane	4.9	0.50	5.0	0.0	98.0	80	119	5.0	2.7	20.0	
Trichloroethene	4.6	0.50	5.0	0.0	93.0	79	123	4.8	4.0	20.0	
Trichlorofluoromethane	5.0	0.50	5.0	0.0	100.0	65	141	4.8	4.0	20.0	
1,2,3-Trichloropropane	4.8	0.50	5.0	0.0	96.0	73	125	5.3	8.8	20.0	
Vinyl chloride	5.1	0.50	5.0	0.0	101.0	58	137	4.8	6.0	20.0	
m+p-Xylenes	9.9	0.50	10	0.0	99.0	80	121	10	2.4	20.0	
o-Xylene	5.1	0.50	5.0	0.0	102.0	78	122	5.4	4.8	20.0	
Xylenes, Total	15	0.50	15	0.0	100.0	79	121	16	3.2	20.0	
Surr: 1,2-Dichloroethane-d4	9.9	0.50	10	0.0	99.0	81	118	0.0			
Surr: Dibromofluoromethane	10	0.50	10	0.0	102.0	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	105.0	89	112	0.0			

Associated Samples: **B21121402-001D, B21121402-002D, B21121402-003D, B21121402-004A, B21121402-010A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 10:46 **Prep Date:**
Lab ID: CCV121721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.0	0.50	5.0		99.0	80	120				
Bromobenzene	5.0	0.50	5.0		100.0	80	120				
Bromochloromethane	5.0	0.50	5.0		101.0	80	120				
Bromodichloromethane	5.0	0.50	5.0		99.0	80	120				
Bromoform	5.2	0.50	5.0		103.0	80	120				
Bromomethane	5.5	0.50	5.0		109.0	80	120				
Carbon tetrachloride	4.9	0.50	5.0		99.0	80	120				
Chlorobenzene	5.0	0.50	5.0		99.0	80	120				
Chlorodibromomethane	5.2	0.50	5.0		103.0	80	120				
Chloroethane	4.6	0.50	5.0		91.0	80	120				
Chloroform	4.8	0.50	5.0		97.0	80	120				
Chloromethane	4.9	0.50	5.0		97.0	80	120				
1,2-Dibromoethane	5.0	0.50	5.0		100.0	80	120				
2-Chlorotoluene	4.9	0.50	5.0		97.0	80	120				
Dibromomethane	4.9	0.50	5.0		99.0	80	120				
1,2-Dichlorobenzene	4.8	0.50	5.0		97.0	80	120				
4-Chlorotoluene	5.1	0.50	5.0		101.0	80	120				
1,3-Dichlorobenzene	4.9	0.50	5.0		98.0	80	120				
1,4-Dichlorobenzene	4.9	0.50	5.0		98.0	80	120				
Dichlorodifluoromethane	4.7	0.50	5.0		94.0	80	120				
1,1-Dichloroethane	4.9	0.50	5.0		99.0	80	120				
1,2-Dichloroethane	4.8	0.50	5.0		97.0	80	120				
1,1-Dichloroethene	5.0	0.50	5.0		99.0	80	120				
cis-1,2-Dichloroethene	5.0	0.50	5.0		100.0	80	120				
trans-1,2-Dichloroethene	5.0	0.50	5.0		100.0	80	120				
1,2-Dichloropropane	5.0	0.50	5.0		100.0	80	120				
1,3-Dichloropropane	5.0	0.50	5.0		100.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 10:46 **Prep Date:**
Lab ID: CCV121721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,2-Dichloropropane	5.2	0.50	5.0		104.0	80	120				
1,1-Dichloropropene	5.0	0.50	5.0		100.0	80	120				
cis-1,3-Dichloropropene	5.0	0.50	5.0		100.0	80	120				
trans-1,3-Dichloropropene	5.1	0.50	5.0		103.0	80	120				
Ethylbenzene	5.0	0.50	5.0		100.0	80	120				
Methyl tert-butyl ether (MTBE)	4.7	0.50	5.0		95.0	80	120				
Methyl ethyl ketone	52	10	50		104.0	80	120				
Methylene chloride	4.8	0.50	5.0		95.0	80	120				
Styrene	5.3	0.50	5.0		105.0	80	120				
1,1,1,2-Tetrachloroethane	5.1	0.50	5.0		101.0	80	120				
1,1,2,2-Tetrachloroethane	5.0	0.50	5.0		100.0	80	120				
Tetrachloroethene	5.1	0.50	5.0		101.0	80	120				
Toluene	5.2	0.50	5.0		103.0	80	120				
1,1,1-Trichloroethane	4.9	0.50	5.0		98.0	80	120				
1,1,2-Trichloroethane	4.9	0.50	5.0		98.0	80	120				
Trichloroethene	5.0	0.50	5.0		100.0	80	120				
Trichlorofluoromethane	4.7	0.50	5.0		94.0	80	120				
1,2,3-Trichloropropane	4.9	0.50	5.0		98.0	80	120				
Vinyl chloride	4.8	0.50	5.0		96.0	80	120				
m+p-Xylenes	11	0.50	10		105.0	80	120				
o-Xylene	5.2	0.50	5.0		104.0	80	120				
Xylenes, Total	16	0.50	15		105.0	80	120				
Surr: 1,2-Dichloroethane-d4	9.7	0.50	10		97.0	80	120				
Surr: Dibromofluoromethane	10	0.50	10		101.0	80	120				
Surr: p-Bromofluorobenzene	10	0.50	10		101.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 10:46 **Prep Date:**
Lab ID: CCV121721_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Toluene-d8	11	0.50	10		105.0	80	120				

Associated Samples: **B21121402-001D, B21121402-002D, B21121402-003D, B21121402-004A, B21121402-010A**

Run ID: Run Order: VOA5975C.I_211217B: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 16:14 **Prep Date:**
Lab ID: CCV_CLOSING121721 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.3	0.50	5.0		106.0	50	150				
Bromobenzene	5.4	0.50	5.0		108.0	50	150				
Bromochloromethane	5.4	0.50	5.0		108.0	50	150				
Bromodichloromethane	5.3	0.50	5.0		106.0	50	150				
Bromoform	5.3	0.50	5.0		105.0	50	150				
Bromomethane	5.6	0.50	5.0		112.0	50	150				
Carbon tetrachloride	5.2	0.50	5.0		103.0	50	150				
Chlorobenzene	5.3	0.50	5.0		107.0	50	150				
Chlorodibromomethane	5.5	0.50	5.0		110.0	50	150				
Chloroethane	4.9	0.50	5.0		97.0	50	150				
Chloroform	5.1	0.50	5.0		102.0	50	150				
Chloromethane	5.4	0.50	5.0		108.0	50	150				
1,2-Dibromoethane	5.4	0.50	5.0		107.0	50	150				
2-Chlorotoluene	5.2	0.50	5.0		104.0	50	150				
Dibromomethane	5.2	0.50	5.0		105.0	50	150				
1,2-Dichlorobenzene	5.2	0.50	5.0		104.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 16:14 **Prep Date:**
Lab ID: CCV_CLOSING121721 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
4-Chlorotoluene	5.4	0.50	5.0		108.0	50	150				
1,3-Dichlorobenzene	5.2	0.50	5.0		104.0	50	150				
1,4-Dichlorobenzene	5.2	0.50	5.0		104.0	50	150				
Dichlorodifluoromethane	5.1	0.50	5.0		103.0	50	150				
1,1-Dichloroethane	5.2	0.50	5.0		104.0	50	150				
1,2-Dichloroethane	4.8	0.50	5.0		95.0	50	150				
1,1-Dichloroethene	5.2	0.50	5.0		105.0	50	150				
cis-1,2-Dichloroethene	5.2	0.50	5.0		104.0	50	150				
trans-1,2-Dichloroethene	5.2	0.50	5.0		103.0	50	150				
1,2-Dichloropropane	5.3	0.50	5.0		107.0	50	150				
1,3-Dichloropropane	5.4	0.50	5.0		108.0	50	150				
2,2-Dichloropropane	5.4	0.50	5.0		109.0	50	150				
1,1-Dichloropropene	5.3	0.50	5.0		106.0	50	150				
cis-1,3-Dichloropropene	5.4	0.50	5.0		109.0	50	150				
trans-1,3-Dichloropropene	5.4	0.50	5.0		108.0	50	150				
Ethylbenzene	5.3	0.50	5.0		106.0	50	150				
Methyl tert-butyl ether (MTBE)	4.9	0.50	5.0		99.0	50	150				
Methyl ethyl ketone	59	10	50		117.0	50	150				
Methylene chloride	5.0	0.50	5.0		100.0	50	150				
Styrene	5.6	0.50	5.0		112.0	50	150				
1,1,1,2-Tetrachloroethane	5.3	0.50	5.0		106.0	50	150				
1,1,2,2-Tetrachloroethane	5.3	0.50	5.0		107.0	50	150				
Tetrachloroethene	5.5	0.50	5.0		109.0	50	150				
Toluene	5.4	0.50	5.0		109.0	50	150				
1,1,1-Trichloroethane	5.2	0.50	5.0		105.0	50	150				
1,1,2-Trichloroethane	5.2	0.50	5.0		105.0	50	150				
Trichloroethene	5.1	0.50	5.0		103.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: VOA5975C.I_211217B: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372427
Method: SW8260B **Analysis Date:** 12/17/2021 16:14 **Prep Date:**
Lab ID: CCV_CLOSING121721 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Trichlorofluoromethane	5.1	0.50	5.0		103.0	50	150				
1,2,3-Trichloropropane	5.1	0.50	5.0		102.0	50	150				
Vinyl chloride	5.1	0.50	5.0		103.0	50	150				
m+p-Xylenes	11	0.50	10		111.0	50	150				
o-Xylene	5.6	0.50	5.0		112.0	50	150				
Xylenes, Total	17	0.50	15		111.0	50	150				
Surr: 1,2-Dichloroethane-d4	9.9	0.50	10		99.0	50	150				
Surr: Dibromofluoromethane	10	0.50	10		101.0	50	150				
Surr: p-Bromofluorobenzene	10	0.50	10		103.0	50	150				
Surr: Toluene-d8	10	0.50	10		105.0	50	150				

Associated Samples: **B21121402-001D, B21121402-002D, B21121402-003D, B21121402-004A, B21121402-010A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GECD.I_211217A: 9 **SampType:** Method Blank **Batch ID:** 162287
Method: SW8011 **Analysis Date:** 12/17/2021 15:10 **Prep Date:** 12/17/2021 09:02
Lab ID: MB-162287 **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	0.10	0.020	0.10		102.0	70	130				

Associated Samples: **B21121402-001F, B21121402-002F, B21121402-003F, B21121402-008A, B21121402-013A**

Run ID: Run Order: GECD.I_211217A: 11 **SampType:** Laboratory Control Sample **Batch ID:** 162287
Method: SW8011 **Analysis Date:** 12/17/2021 15:49 **Prep Date:** 12/17/2021 09:02
Lab ID: LCS-162287 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.23	0.010	0.25		90.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.091	0.020	0.10		91.0	70	130				

Associated Samples: **B21121402-001F, B21121402-002F, B21121402-003F, B21121402-008A, B21121402-013A**

Run ID: Run Order: GECD.I_211217A: 12 **SampType:** Laboratory Control Sample **Batch ID:** 162287
Method: SW8011 **Analysis Date:** 12/17/2021 16:09 **Prep Date:** 12/17/2021 09:02
Lab ID: LCS1-162287 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.090	0.010	0.10		90.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.091	0.020	0.10		91.0	70	130				

Associated Samples: **B21121402-001F, B21121402-002F, B21121402-003F, B21121402-008A, B21121402-013A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GECD.I_211217A: 19 **SampType:** Sample Matrix Spike **Batch ID:** 162287
Method: SW8011 **Analysis Date:** 12/17/2021 18:47 **Prep Date:** 12/17/2021 09:03
Lab ID: B21121402-001FMS **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	91.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.091	0.020	0.098	0.0	92.0	70	130				

Associated Samples: **B21121402-001F, B21121402-002F, B21121402-003F, B21121402-008A, B21121402-013A**

Run ID: Run Order: GECD.I_211217A: 20 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162287
Method: SW8011 **Analysis Date:** 12/17/2021 19:07 **Prep Date:** 12/17/2021 09:03
Lab ID: B21121402-001FMSD **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.20	0.010	0.24	0.0	84.0	60	140	0.22	9.6	20.0	
Surr: 1,1,1,2-Tetrachloroethane	0.084	0.020	0.097	0.0	87.0	70	130	0.0			

Associated Samples: **B21121402-001F, B21121402-002F, B21121402-003F, B21121402-008A, B21121402-013A**

Run ID: Run Order: GECD.I_211217A: 10 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 162287
Method: SW8011 **Analysis Date:** 12/17/2021 15:29 **Prep Date:** 12/17/2021 09:02
Lab ID: CAL3-162287 **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		103.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.095	0.020	0.10		95.0	80	120				

Associated Samples: **B21121402-001F, B21121402-002F, B21121402-003F, B21121402-008A, B21121402-013A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GECD.I_211217A: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 162287
Method: SW8011 **Analysis Date:** 12/17/2021 19:46 **Prep Date:** 12/17/2021 09:02
Lab ID: CAL5-162287 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.36	0.010	0.40		89.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.42	0.020	0.40		104.0	80	120				

Associated Samples: **B21121402-001F, B21121402-002F, B21121402-003F, B21121402-008A, B21121402-013A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: PE 1_211217A: 4 **SampType:** Method Blank **Batch ID:** R372029
Method: SW8015C **Analysis Date:** 12/17/2021 10:30 **Prep Date:**
Lab ID: MBLK_1217PE106r **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	21	1.0	25		82.0	70	130				

Associated Samples: **B21121402-001E, B21121402-002E, B21121402-003E, B21121402-006A, B21121402-012A**

Run ID: Run Order: PE 1_211217A: 16 **SampType:** Method Blank **Batch ID:** R372029
Method: SW8015C **Analysis Date:** 12/18/2021 12:00 **Prep Date:**
Lab ID: MBLK_1217PE128r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	ND	10									
Total Purgeable Hydrocarbons	ND	10									
Surr: Trifluorotoluene	20	1.0	25		82.0	70	130				

Associated Samples: **B21121402-001E, B21121402-002E, B21121402-003E, B21121402-006A, B21121402-012A**

Run ID: Run Order: PE 1_211217A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R372029
Method: SW8015C **Analysis Date:** 12/17/2021 09:56 **Prep Date:**
Lab ID: LCS_1217PE105r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	175	20	170		103.0	78	122				
Total Purgeable Hydrocarbons	211	20	200		105.0	70	130				
Surr: Trifluorotoluene	23	1.0	25		91.0	70	130				

Associated Samples: **B21121402-001E, B21121402-002E, B21121402-003E, B21121402-006A, B21121402-012A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: PE 1_211217A: 15 **SampType:** Laboratory Control Sample **Batch ID:** R372029
Method: SW8015C **Analysis Date:** 12/18/2021 11:26 **Prep Date:**
Lab ID: LCS_1217PE127r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	168	20	170		99.0	78	122				
Total Purgeable Hydrocarbons	203	20	200		101.0	70	130				
Surr: Trifluorotoluene	23	1.0	25		91.0	70	130				

Associated Samples: **B21121402-001E, B21121402-002E, B21121402-003E, B21121402-006A, B21121402-012A**

Run ID: Run Order: PE 1_211217A: 9 **SampType:** Sample Matrix Spike **Batch ID:** R372029
Method: SW8015C **Analysis Date:** 12/17/2021 17:22 **Prep Date:**
Lab ID: B21121402-002EMS **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	170	0.0	107.0	78	122				
Total Purgeable Hydrocarbons	227	20	200	0.0	114.0	70	130				
Surr: Trifluorotoluene	23	1.0	25	0.0	91.0	70	130				

Associated Samples: **B21121402-001E, B21121402-002E, B21121402-003E, B21121402-006A, B21121402-012A**

Run ID: Run Order: PE 1_211217A: 10 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R372029
Method: SW8015C **Analysis Date:** 12/17/2021 17:56 **Prep Date:**
Lab ID: B21121402-002EMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	179	20	170	0.0	106.0	78	122	181	1.1	20.0	
Total Purgeable Hydrocarbons	220	20	200	0.0	110.0	70	130	227	3.3	20.0	
Surr: Trifluorotoluene	23	1.0	25	0.0	93.0	70	130	0.0			

Associated Samples: **B21121402-001E, B21121402-002E, B21121402-003E, B21121402-006A, B21121402-012A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GCFID-HP5-B_211217A: 5 **SampType:** Method Blank **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/18/2021 12:27 **Prep Date:** 12/16/2021 15:01
Lab ID: MB-162268 **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	0.18	0.0020	0.20		88.0	56	125				
Surr: n-Triacontane	0.091	0.0020	0.10		91.0	50	150				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220B: 11 **SampType:** Method Blank **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/21/2021 08:28 **Prep Date:** 12/16/2021 15:01
Lab ID: MB-162268 **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)	0.20	0.0020	0.20		99.0	56	125				
Surr: n-Triacontane (SGT)	0.097	0.0020	0.10		97.0	50	150				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GCFID-HP5-B_211217A: 3 **SampType:** Laboratory Control Sample **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/18/2021 11:01 **Prep Date:** 12/16/2021 15:01
Lab ID: LCS-162268 **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		88.0	36	132				
Total Extractable Hydrocarbons	14	0.30	15		94.0	60	132				
Surr: o-Terphenyl	0.19	0.0020	0.20		93.0	56	125				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211217A: 4 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/18/2021 11:44 **Prep Date:** 12/16/2021 15:01
Lab ID: LCSD-162268 **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		89.0	36	132	13	0.9	20.0	
Total Extractable Hydrocarbons	14	0.30	15		95.0	60	132	14	0.9	20.0	
Surr: o-Terphenyl	0.18	0.0020	0.20		91.0	56	125	0.0			

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211217A: 10 **SampType:** Laboratory Control Sample **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/19/2021 00:38 **Prep Date:** 12/16/2021 15:01
Lab ID: LCS-162268-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)	4.6	0.30	5.0		92.0	41	113	4.6			
Surr: n-Triacontane	0.094	0.0020	0.10		93.0	50	150				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GCFID-HP5-B_211217A: 11 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/19/2021 02:04 **Prep Date:** 12/16/2021 15:01
Lab ID: LCSD-162268-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)	4.7	0.30	5.0		95.0	41	113	4.6	2.4	20.0	
Surr: n-Triacontane	0.094	0.0020	0.10		94.0	50	150	0.0			

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220B: 9 **SampType:** Laboratory Control Sample **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/21/2021 07:02 **Prep Date:** 12/16/2021 15:01
Lab ID: LCS-162268 **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)	13	0.30	15		90.0	36	132				
Total Extractable Hydrocarbons (SGT)	14	0.30	15		96.0	60	132				
Surr: o-Terphenyl (SGT)	0.20	0.0020	0.20		98.0	56	125				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220B: 10 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/21/2021 07:45 **Prep Date:** 12/16/2021 15:01
Lab ID: LCSD-162268 **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)	15	0.30	15		97.0	36	132	13	8.2	20.0	
Total Extractable Hydrocarbons (SGT)	16	0.30	15		104.0	60	132	14	7.7	20.0	
Surr: o-Terphenyl (SGT)	0.21	0.0020	0.20		105.0	56	125	0.0			

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GCFID-HP5-B_211220B: 13 **SampType:** Laboratory Control Sample **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/21/2021 09:53 **Prep Date:** 12/16/2021 15:01
Lab ID: LCS-162268-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)	5.1	0.30	5.0		103.0	41	113				
Surr: n-Triacontane (SGT)	0.095	0.0020	0.10		95.0	50	150				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220B: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/21/2021 11:19 **Prep Date:** 12/16/2021 15:01
Lab ID: LCSD-162268-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)	5.1	0.30	5.0		102.0	41	113	5.1	0.8	20.0	
Surr: n-Triacontane (SGT)	0.093	0.0020	0.10		93.0	50	150	0.0			

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211217A: 7 **SampType:** Sample Matrix Spike **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/18/2021 18:09 **Prep Date:** 12/16/2021 15:02
Lab ID: B21121402-003BMS-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)	4.7	0.30	4.8	0.76	83.0	41	113	0.76			
Surr: n-Triacontane	0.090	0.0020	0.095	0.0	94.0	50	150				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GCFID-HP5-B_211220A: 5 **SampType:** Sample Matrix Spike **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/20/2021 15:14 **Prep Date:** 12/16/2021 15:02
Lab ID: B21121402-001BMS **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	0.63	86.0	36	132				
Total Extractable Hydrocarbons	17	0.30	15	4.4	84.0	60	132				
Surr: o-Terphenyl	0.18	0.0020	0.20	0.0	89.0	56	125				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220B: 5 **SampType:** Sample Matrix Spike **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/21/2021 02:01 **Prep Date:** 12/16/2021 15:02
Lab ID: B21121402-001BMS **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	0.043	76.0	36	132				
Total Extractable Hydrocarbons (SGT)	12	0.30	15	0.20	80.0	60	132				
Surr: o-Terphenyl (SGT)	0.16	0.0020	0.20	0.0	82.0	56	125				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220B: 8 **SampType:** Sample Matrix Spike **Batch ID:** 162268
Method: SW8015C **Analysis Date:** 12/21/2021 05:36 **Prep Date:** 12/16/2021 15:02
Lab ID: B21121402-003BMS-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)	4.9	0.30	4.8	0.0	102.0	41	113				
Surr: n-Triacontane (SGT)	0.089	0.0020	0.095	0.0	94.0	50	150				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: PE 1_211217A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372029
Method: SW8015C **Analysis Date:** 12/17/2021 09:22 **Prep Date:**
Lab ID: CCV_1217PE104r **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	24	1.0	25		94.0	80	120				

Associated Samples: **B21121402-001E, B21121402-002E, B21121402-003E, B21121402-006A, B21121402-012A**

Run ID: Run Order: PE 1_211217A: 14 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372029
Method: SW8015C **Analysis Date:** 12/18/2021 10:52 **Prep Date:**
Lab ID: CCV_1217PE126r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	168	20	168		100.0	80	120				
Total Purgeable Hydrocarbons	201	20	200		100.0	80	120				
Surr: Trifluorotoluene	23	1.0	25		93.0	80	120				

Associated Samples: **B21121402-001E, B21121402-002E, B21121402-003E, B21121402-006A, B21121402-012A**

Run ID: Run Order: GCFID-HP5-B_211217A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372036
Method: SW8015C **Analysis Date:** 12/18/2021 08:53 **Prep Date:**
Lab ID: CCV_1217HP535r-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		94.0	80	120				
Surr: n-Triacontane	0.21	0.0020	0.20		104.0	80	120				

Associated Samples: **B21121402-002B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GCFID-HP5-B_211217A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372036
Method: SW8015C **Analysis Date:** 12/18/2021 09:36 **Prep Date:**
Lab ID: CCV_1217HP536r **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)	15	0.30	15		100.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		104.0	80	120				
Surr: o-Terphenyl	0.20	0.0020	0.20		101.0	80	120				

Associated Samples: **B21121402-002B**

Run ID: Run Order: GCFID-HP5-B_211217A: 8 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372036
Method: SW8015C **Analysis Date:** 12/18/2021 19:35 **Prep Date:**
Lab ID: CCV_1217HP550r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.0	0.30	5.0		101.0	80	120				
Surr: n-Triacontane	0.22	0.0020	0.20		108.0	80	120				

Associated Samples: **B21121402-002B**

Run ID: Run Order: GCFID-HP5-B_211217A: 9 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372036
Method: SW8015C **Analysis Date:** 12/18/2021 20:19 **Prep Date:**
Lab ID: CCV_1217HP551r **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)	16	0.30	15		104.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		108.0	80	120				
Surr: o-Terphenyl	0.21	0.0020	0.20		105.0	80	120				

Associated Samples: **B21121402-002B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GCFID-HP5-B_211220A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372064
Method: SW8015C **Analysis Date:** 12/20/2021 10:58 **Prep Date:**
Lab ID: CCV_1220HP504r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.8	0.30	5.0		96.0	80	120				
Surr: n-Triacontane	0.21	0.0020	0.20		106.0	80	120				

Associated Samples: **B21121402-001B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372064
Method: SW8015C **Analysis Date:** 12/20/2021 11:41 **Prep Date:**
Lab ID: CCV_1220HP505r **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)	15	0.30	15		102.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		106.0	80	120				
Surr: o-Terphenyl	0.21	0.0020	0.20		103.0	80	120				

Associated Samples: **B21121402-001B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220A: 6 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372064
Method: SW8015C **Analysis Date:** 12/20/2021 16:42 **Prep Date:**
Lab ID: CCV_1220HP512r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.2	0.30	5.0		104.0	80	120				
Surr: n-Triacontane	0.22	0.0020	0.20		109.0	80	120				

Associated Samples: **B21121402-001B, B21121402-003B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GCFID-HP5-B_211220A: 7 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372064
Method: SW8015C **Analysis Date:** 12/20/2021 17:25 **Prep Date:**
Lab ID: CCV_1220HP513r **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)	15	0.30	15		101.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		104.0	80	120				
Surr: o-Terphenyl	0.22	0.0020	0.20		108.0	80	120				

Associated Samples: **B21121402-001B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220B: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372135
Method: SW8015C **Analysis Date:** 12/20/2021 16:42 **Prep Date:**
Lab ID: CCV_1220HP512r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.2	0.30	5.0		104.0	80	120				
Surr: n-Triacontane	0.22	0.0020	0.20		109.0	80	120				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372135
Method: SW8015C **Analysis Date:** 12/20/2021 17:25 **Prep Date:**
Lab ID: CCV_1220HP513r **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)	15	0.30	15		101.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		104.0	80	120				
Surr: o-Terphenyl	0.22	0.0020	0.20		108.0	80	120				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GCFID-HP5-B_211220B: 6 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372135
Method: SW8015C **Analysis Date:** 12/21/2021 03:27 **Prep Date:**
Lab ID: CCV_1220HP527r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.1	0.30	5.0		103.0	80	120				
Surr: n-Triacontane	0.22	0.0020	0.20		111.0	80	120				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220B: 7 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372135
Method: SW8015C **Analysis Date:** 12/21/2021 04:10 **Prep Date:**
Lab ID: CCV_1220HP528r **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)	15	0.30	15		102.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		106.0	80	120				
Surr: o-Terphenyl	0.21	0.0020	0.20		104.0	80	120				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Run ID: Run Order: GCFID-HP5-B_211220B: 15 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372135
Method: SW8015C **Analysis Date:** 12/21/2021 12:44 **Prep Date:**
Lab ID: CCV_1220HP540r-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		94.0	80	120				
Surr: n-Triacontane	0.21	0.0020	0.20		106.0	80	120				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: GCFID-HP5-B_211220B: 16 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372135
Method: SW8015C **Analysis Date:** 12/21/2021 13:27 **Prep Date:**
Lab ID: CCV_1220HP541r **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		100.0	80	120				
Surr: o-Terphenyl	0.19	0.0020	0.20		96.0	80	120				

Associated Samples: **B21121402-001B, B21121402-002B, B21121402-003B**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: FID-HEADSPACE_211216B: 4 **SampType:** Method Blank **Batch ID:** R371986
Method: SW8015M **Analysis Date:** 12/16/2021 14:43 **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: **B21121402-001H, B21121402-002H, B21121402-009A, B21121402-014A**

Run ID: Run Order: FID-HEADSPACE_211216B: 2 **SampType:** Laboratory Control Sample **Batch ID:** R371986
Method: SW8015M **Analysis Date:** 12/16/2021 14:06 **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	96	2.0	100		96.0	85	115				

Associated Samples: **B21121402-001H, B21121402-002H, B21121402-009A, B21121402-014A**

Run ID: Run Order: FID-HEADSPACE_211216B: 3 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** R371986
Method: SW8015M **Analysis Date:** 12/16/2021 14:10 **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	96	0.2	20.0	

Associated Samples: **B21121402-001H, B21121402-002H, B21121402-009A, B21121402-014A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: FID-HEADSPACE_211216B: 7 **SampType:** Sample Duplicate **Batch ID:** R371986
Method: SW8015M **Analysis Date:** 12/16/2021 15:15 **Prep Date:**
Lab ID: B21121402-002HDUP **Units:** mg/L **Prep Method:**

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

Associated Samples: **B21121402-001H, B21121402-002H, B21121402-009A, B21121402-014A**

Run ID: Run Order: FID-HEADSPACE_211216B: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R371986
Method: SW8015M **Analysis Date:** 12/16/2021 14:00 **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	99	2.0	100		99.0	85	115				

Associated Samples: **B21121402-001H, B21121402-002H, B21121402-009A, B21121402-014A**

Run ID: Run Order: FID-HEADSPACE_211216B: 10 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R371986
Method: SW8015M **Analysis Date:** 12/16/2021 15:40 **Prep Date:**
Lab ID: CCV **Units:** ppm **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	99	2.0	100		99.0	85	115				

Associated Samples: **B21121402-001H, B21121402-002H, B21121402-009A, B21121402-014A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 4 **SampType:** Method Blank **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 20:54 **Prep Date:** 12/17/2021 11:09
Lab ID: MB-162302 **Units:** ug/L **Prep Method:** SW3510C

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

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 4 **SampType:** Method Blank **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 20:54 **Prep Date:** 12/17/2021 11:09
Lab ID: MB-162302 **Units:** ug/L **Prep Method:** SW3510C

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

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 4 **SampType:** Method Blank **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 20:54 **Prep Date:** 12/17/2021 11:09
Lab ID: MB-162302 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Nitrobenzene	ND	5.0									
n-Nitrosodimethylamine	ND	5.0									
n-Nitroso-di-n-propylamine	ND	5.0									
n-Nitrosodiphenylamine	ND	10									
o-Cresol	ND	5.0									
Pentachlorophenol	ND	10									
Phenanthrene	ND	5.0									
Phenol	ND	5.0									
Pyrene	ND	5.0									
Pyridine	ND	5.0									
Surr: 2,4,6-Tribromophenol	158	5.0	200		79.0	25	140				
Surr: 2-Fluorobiphenyl	67	5.0	100		67.0	28	107				
Surr: 2-Fluorophenol	70	5.0	200		35.0	10	75				
Surr: Nitrobenzene-d5	60	5.0	100		60.0	32	94				
Surr: Phenol-d5	70	5.0	200		35.0	10	65				
Surr: Terphenyl-d14	104	5.0	100		104.0	32	122				

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5975.I_211220A: 11 **SampType:** Method Blank **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 21:00 **Prep Date:** 12/17/2021 11:09
Lab ID: MB-162302 **Units:** ug/L **Prep Method:** SW3510C

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

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Run ID: Run Order: SV5975.I_211220A: 12 **SampType:** Method Blank **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 21:32 **Prep Date:** 12/17/2021 11:09
Lab ID: MB-162302 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	68	2.0	100		68.0	53	106				
Surr: Nitrobenzene-d5	52	2.0	100		52.0	55	111				S
Surr: Terphenyl-d14	93	2.0	100		93.0	58	132				

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Run ID: Run Order: SV5973N.I_211220A: 5 **SampType:** Laboratory Control Sample **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 21:27 **Prep Date:** 12/17/2021 11:09
Lab ID: LCS-162302 **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	58	10	100		58.0	29	116				
1,2-Dichlorobenzene	52	10	100		52.0	32	111				
1,3-Dichlorobenzene	49	10	100		49.0	28	110				
1,4-Dichlorobenzene	48	10	100		48.0	29	112				
1-Methylnaphthalene	72	10	100		72.0	41	119				
2,4,5-Trichlorophenol	72	10	100		72.0	53	123				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 5 **SampType:** Laboratory Control Sample **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 21:27 **Prep Date:** 12/17/2021 11:09
Lab ID: LCS-162302 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4,6-Trichlorophenol	79	10	100		79.0	50	125				
2,4-Dichlorophenol	69	10	100		69.0	47	121				
2,4-Dimethylphenol	71	10	100		71.0	31	124				
2,4-Dinitrophenol	77	10	100		77.0	23	142				
2,4-Dinitrotoluene	77	10	100		77.0	57	128				
2,6-Dinitrotoluene	89	10	100		89.0	50	118				
2-Chloronaphthalene	79	10	100		79.0	40	116				
2-Chlorophenol	70	10	100		70.0	38	117				
2-Methylnaphthalene	73	10	100		73.0	40	121				
2-Nitrophenol	79	10	100		79.0	47	123				
3,3´-Dichlorobenzidine	69	10	100		69.0	27	129				
4,6-Dinitro-2-methylphenol	84	10	100		84.0	44	137				
4-Bromophenyl phenyl ether	90	10	100		90.0	55	124				
4-Chloro-3-methylphenol	83	10	100		83.0	52	119				
4-Chlorophenol	73	10	100		73.0	41	81				
4-Chlorophenyl phenyl ether	96	10	100		96.0	53	121				
4-Nitrophenol	39	10	100		39.0	15	36				S
Acenaphthene	92	10	100		92.0	47	122				
Acenaphthylene	79	10	100		79.0	41	130				
Anthracene	88	10	100		88.0	57	123				
Azobenzene	73	10	100		73.0	61	116				
Benzidine	22	10	100		22.0	10	100				
Benzo(a)anthracene	93	10	100		93.0	58	125				
Benzo(a)pyrene	90	10	100		90.0	54	128				
Benzo(b)fluoranthene	94	10	100		94.0	53	131				
Benzo(g,h,i)perylene	87	10	100		87.0	50	134				
Benzo(k)fluoranthene	85	10	100		85.0	57	129				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 5 **SampType:** Laboratory Control Sample **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 21:27 **Prep Date:** 12/17/2021 11:09
Lab ID: LCS-162302 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
bis(-2-chloroethoxy)Methane	77	10	100		77.0	48	120				
bis(-2-chloroethyl)Ether	76	10	100		76.0	43	118				
bis(2-chloroisopropyl)Ether	60	10	100		60.0	37	130				
bis(2-ethylhexyl)Phthalate	89	10	100		89.0	55	135				
Butylbenzylphthalate	88	10	100		88.0	53	134				
Chrysene	90	10	100		90.0	59	123				
Dibenzo(a,h)anthracene	88	10	100		88.0	51	134				
Diethyl phthalate	96	10	100		96.0	56	125				
Dimethyl phthalate	89	10	100		89.0	45	127				
Di-n-butyl phthalate	88	10	100		88.0	59	127				
Di-n-octyl phthalate	90	10	100		90.0	51	140				
Fluoranthene	87	10	100		87.0	57	128				
Fluorene	85	10	100		85.0	52	124				
Hexachlorobenzene	81	10	100		81.0	53	125				
Hexachlorobutadiene	47	10	100		47.0	22	124				
Hexachlorocyclopentadiene	58	10	100		58.0	39	91				
Hexachloroethane	41	10	100		41.0	21	115				
Indeno(1,2,3-cd)pyrene	81	10	100		81.0	52	134				
Isophorone	80	10	100		80.0	42	124				
m+p-Cresols	64	10	100		64.0	29	110				
Naphthalene	71	10	100		71.0	40	121				
Nitrobenzene	63	10	100		63.0	45	121				
n-Nitrosodimethylamine	48	10	100		48.0	20	45				S
n-Nitroso-di-n-propylamine	85	10	100		85.0	49	119				
n-Nitrosodiphenylamine	95	10	100		95.0	51	123				
o-Cresol	72	10	100		72.0	30	117				
Pentachlorophenol	103	10	100		103.0	35	138				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 5 **SampType:** Laboratory Control Sample **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 21:27 **Prep Date:** 12/17/2021 11:09
Lab ID: LCS-162302 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Phenanthrene	89	10	100		89.0	59	120				
Phenol	44	10	100		44.0	37	75				
Pyrene	84	10	100		84.0	57	126				
Pyridine	32	10	100		32.0	16	45				
Surr: 2,4,6-Tribromophenol	170	10	200		85.0	43	140				
Surr: 2-Fluorobiphenyl	78	10	100		78.0	44	119				
Surr: 2-Fluorophenol	84	10	200		42.0	19	119				
Surr: Nitrobenzene-d5	63	10	100		63.0	44	120				
Surr: Phenol-d5	87	10	200		43.0	10	65				
Surr: Terphenyl-d14	98	10	100		98.0	50	134				

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Run ID: Run Order: SV5973N.I_211220A: 6 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 21:59 **Prep Date:** 12/17/2021 11:09
Lab ID: LCSD-162302 **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	55	10	100		55.0	29	116	58	4.8	20.0	
1,2-Dichlorobenzene	49	10	100		49.0	32	111	52	5.8	20.0	
1,3-Dichlorobenzene	45	10	100		45.0	28	110	49	9.8	20.0	
1,4-Dichlorobenzene	44	10	100		44.0	29	112	48	7.8	20.0	
1-Methylnaphthalene	73	10	100		73.0	41	119	72	2.5	20.0	
2,4,5-Trichlorophenol	74	10	100		74.0	53	123	72	2.2	20.0	
2,4,6-Trichlorophenol	85	10	100		85.0	50	125	79	6.7	20.0	
2,4-Dichlorophenol	74	10	100		74.0	47	121	69	6.5	20.0	
2,4-Dimethylphenol	80	10	100		80.0	31	124	71	12.0	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 6 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 21:59 **Prep Date:** 12/17/2021 11:09
Lab ID: LCSD-162302 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4-Dinitrophenol	79	10	100		79.0	23	142	77	2.6	20.0	
2,4-Dinitrotoluene	82	10	100		82.0	57	128	77	5.8	20.0	
2,6-Dinitrotoluene	94	10	100		94.0	50	118	89	6.4	20.0	
2-Chloronaphthalene	78	10	100		78.0	40	116	79	2.0	20.0	
2-Chlorophenol	76	10	100		76.0	38	117	70	8.0	20.0	
2-Methylnaphthalene	74	10	100		74.0	40	121	73	1.5	20.0	
2-Nitrophenol	80	10	100		80.0	47	123	79	1.2	20.0	
3,3´-Dichlorobenzidine	77	10	100		77.0	27	129	69	11.0	20.0	
4,6-Dinitro-2-methylphenol	91	10	100		91.0	44	137	84	8.0	20.0	
4-Bromophenyl phenyl ether	91	10	100		91.0	55	124	90	2.1	20.0	
4-Chloro-3-methylphenol	87	10	100		87.0	52	119	83	4.8	20.0	
4-Chlorophenol	80	10	100		80.0	41	81	73	9.0	20.0	
4-Chlorophenyl phenyl ether	91	10	100		91.0	53	121	96	5.1	20.0	
4-Nitrophenol	44	10	100		44.0	15	36	39	12.0	20.0	S
Acenaphthene	86	10	100		86.0	47	122	92	7.3	20.0	
Acenaphthylene	78	10	100		78.0	41	130	79	0.3	20.0	
Anthracene	92	10	100		92.0	57	123	88	4.3	20.0	
Azobenzene	78	10	100		78.0	61	116	73	7.6	20.0	
Benzidine	19	10	100		19.0	10	100	22	12.0	20.0	
Benzo(a)anthracene	101	10	100		101.0	58	125	93	8.2	20.0	
Benzo(a)pyrene	92	10	100		92.0	54	128	90	2.1	20.0	
Benzo(b)fluoranthene	97	10	100		97.0	53	131	94	3.6	20.0	
Benzo(g,h,i)perylene	89	10	100		89.0	50	134	87	2.4	20.0	
Benzo(k)fluoranthene	88	10	100		88.0	57	129	85	3.1	20.0	
bis(-2-chloroethoxy)Methane	87	10	100		87.0	48	120	77	11.0	20.0	
bis(-2-chloroethyl)Ether	80	10	100		80.0	43	118	76	5.1	20.0	
bis(2-chloroisopropyl)Ether	63	10	100		63.0	37	130	60	3.5	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 6 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 21:59 **Prep Date:** 12/17/2021 11:09
Lab ID: LCSD-162302 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
bis(2-ethylhexyl)Phthalate	95	10	100		95.0	55	135	89	7.0	20.0	
Butylbenzylphthalate	98	10	100		98.0	53	134	88	11.0	20.0	
Chrysene	99	10	100		99.0	59	123	90	9.1	20.0	
Dibenzo(a,h)anthracene	91	10	100		91.0	51	134	88	3.3	20.0	
Diethyl phthalate	99	10	100		99.0	56	125	96	2.9	20.0	
Dimethyl phthalate	92	10	100		92.0	45	127	89	3.2	20.0	
Di-n-butyl phthalate	95	10	100		95.0	59	127	88	7.0	20.0	
Di-n-octyl phthalate	91	10	100		91.0	51	140	90	1.3	20.0	
Fluoranthene	92	10	100		92.0	57	128	87	5.2	20.0	
Fluorene	82	10	100		82.0	52	124	85	3.2	20.0	
Hexachlorobenzene	85	10	100		85.0	53	125	81	4.1	20.0	
Hexachlorobutadiene	41	10	100		41.0	22	124	47	15.0	20.0	
Hexachlorocyclopentadiene	51	10	100		51.0	39	91	58	14.0	20.0	
Hexachloroethane	35	10	100		35.0	21	115	41	14.0	20.0	
Indeno(1,2,3-cd)pyrene	86	10	100		86.0	52	134	81	6.1	20.0	
Isophorone	87	10	100		87.0	42	124	80	8.6	20.0	
m+p-Cresols	71	10	100		71.0	29	110	64	11.0	20.0	
Naphthalene	68	10	100		68.0	40	121	71	5.3	20.0	
Nitrobenzene	68	10	100		68.0	45	121	63	8.3	20.0	
n-Nitrosodimethylamine	51	10	100		51.0	20	45	48	6.2	20.0	S
n-Nitroso-di-n-propylamine	97	10	100		97.0	49	119	85	13.0	20.0	
n-Nitrosodiphenylamine	103	10	100		103.0	51	123	95	7.7	20.0	
o-Cresol	78	10	100		78.0	30	117	72	8.1	20.0	
Pentachlorophenol	110	10	100		110.0	35	138	103	6.7	20.0	
Phenanthrene	94	10	100		94.0	59	120	89	5.8	20.0	
Phenol	49	10	100		49.0	37	75	44	10.0	20.0	
Pyrene	90	10	100		90.0	57	126	84	6.3	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 6 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 21:59 **Prep Date:** 12/17/2021 11:09
Lab ID: LCSD-162302 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Pyridine	35	10	100		35.0	16	45	32	7.8	20.0	
Surr: 2,4,6-Tribromophenol	186	10	200		93.0	43	140	0.0	0.0		
Surr: 2-Fluorobiphenyl	72	10	100		72.0	44	119	0.0	0.0		
Surr: 2-Fluorophenol	89	10	200		44.0	19	119	0.0	0.0		
Surr: Nitrobenzene-d5	68	10	100		68.0	44	120	0.0	0.0		
Surr: Phenol-d5	89	10	200		44.0	10	65	0.0	0.0		
Surr: Terphenyl-d14	104	10	100		104.0	50	134	0.0	0.0		

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

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

Run ID: Run Order: SV5975.I_211220A: 13 **SampType:** Laboratory Control Sample **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 22:05 **Prep Date:** 12/17/2021 11:10
Lab ID: LLCS-162302 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.4	0.10	5.0		47.0	41	115				
2-Methylnaphthalene	2.5	0.10	5.0		51.0	39	114				
Naphthalene	2.4	0.10	5.0		49.0	43	114				
Surr: 2-Fluorobiphenyl	3.0	0.10	5.0		59.0	53	106				
Surr: Nitrobenzene-d5	3.3	0.10	5.0		66.0	55	111				
Surr: Terphenyl-d14	2.7	0.10	5.0		55.0	58	132				S

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5975.I_211220A: 14 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 22:37 **Prep Date:** 12/17/2021 11:10
Lab ID: LLCSD-162302 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.1	0.10	5.0		41.0	41	115	2.4	14.0	40.0	
2-Methylnaphthalene	2.1	0.10	5.0		41.0	39	114	2.5	20.0	40.0	
Naphthalene	2.2	0.10	5.0		43.0	43	114	2.4	12.0	40.0	
Surr: 2-Fluorobiphenyl	3.2	0.10	5.0		64.0	53	106	0.0	0.0		
Surr: Nitrobenzene-d5	3.1	0.10	5.0		63.0	55	111	0.0	0.0		
Surr: Terphenyl-d14	4.5	0.10	5.0		90.0	58	132	0.0	0.0		

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

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

Run ID: Run Order: SV5973N.I_211220A: 23 **SampType:** Sample Matrix Spike **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 23:04 **Prep Date:** 12/17/2021 11:10
Lab ID: B21121234-001AMS **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	68	10	100	0.0	68.0	29	116				
1,2-Dichlorobenzene	66	10	100	0.0	66.0	32	111				
1,3-Dichlorobenzene	62	10	100	0.0	62.0	28	110				
1,4-Dichlorobenzene	61	10	100	0.0	61.0	29	112				
1-Methylnaphthalene	75	10	100	0.0	75.0	41	119				
2,4,5-Trichlorophenol	65	10	100	0.0	65.0	53	123				
2,4,6-Trichlorophenol	73	10	100	0.0	73.0	50	125				
2,4-Dichlorophenol	73	10	100	0.0	73.0	47	121				
2,4-Dimethylphenol	78	10	100	0.0	78.0	31	124				
2,4-Dinitrophenol	81	20	100	0.0	81.0	23	142				
2,4-Dinitrotoluene	78	10	100	0.0	78.0	57	128				
2,6-Dinitrotoluene	71	10	100	0.0	71.0	50	118				
2-Chloronaphthalene	73	10	100	0.0	73.0	40	116				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 23 **SampType:** Sample Matrix Spike **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 23:04 **Prep Date:** 12/17/2021 11:10
Lab ID: B21121234-001AMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Chlorophenol	76	10	100	0.0	76.0	38	117				
2-Methylnaphthalene	77	10	100	0.0	77.0	40	121				
2-Nitrophenol	78	10	100	0.0	78.0	47	123				
3,3´-Dichlorobenzidine	48	20	100	0.0	48.0	27	129				
4,6-Dinitro-2-methylphenol	72	20	100	0.0	72.0	44	137				
4-Bromophenyl phenyl ether	78	10	100	0.0	78.0	55	124				
4-Chloro-3-methylphenol	86	10	100	0.0	86.0	52	119				
4-Chlorophenol	83	10	100	0.0	83.0	41	81				S
4-Chlorophenyl phenyl ether	76	10	100	0.0	76.0	53	121				
4-Nitrophenol	39	20	100	0.0	39.0	15	36				S
Acenaphthene	87	10	100	0.0	87.0	47	122				
Acenaphthylene	77	10	100	0.0	77.0	41	130				
Anthracene	87	10	100	0.0	87.0	57	123				
Azobenzene	72	10	100	0.0	72.0	61	116				
Benzidine	ND	20	100	0.0	7.0	10	100				S
Benzo(a)anthracene	81	10	100	0.0	81.0	58	125				
Benzo(a)pyrene	70	10	100	0.0	70.0	54	128				
Benzo(b)fluoranthene	79	10	100	0.0	79.0	53	131				
Benzo(g,h,i)perylene	72	10	100	0.0	72.0	50	134				
Benzo(k)fluoranthene	69	10	100	0.0	69.0	57	129				
bis(-2-chloroethoxy)Methane	76	10	100	0.0	76.0	48	120				
bis(-2-chloroethyl)Ether	82	10	100	0.0	82.0	43	118				
bis(2-chloroisopropyl)Ether	60	10	100	0.0	60.0	37	130				
bis(2-ethylhexyl)Phthalate	70	10	100	0.0	70.0	55	135				
Butylbenzylphthalate	79	10	100	0.0	79.0	53	134				
Chrysene	81	10	100	0.0	81.0	59	123				
Dibenzo(a,h)anthracene	69	10	100	0.0	69.0	51	134				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 23 **SampType:** Sample Matrix Spike **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 23:04 **Prep Date:** 12/17/2021 11:10
Lab ID: B21121234-001AMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	82	10	100	0.0	82.0	56	125				
Dimethyl phthalate	93	10	100	0.0	93.0	45	127				
Di-n-butyl phthalate	79	10	100	0.0	79.0	59	127				
Di-n-octyl phthalate	69	10	100	0.0	69.0	51	140				
Fluoranthene	78	10	100	0.0	78.0	57	128				
Fluorene	81	10	100	0.0	81.0	52	124				
Hexachlorobenzene	69	10	100	0.0	69.0	53	125				
Hexachlorobutadiene	50	10	100	0.0	50.0	22	124				
Hexachlorocyclopentadiene	46	10	100	0.0	46.0	39	91				
Hexachloroethane	50	10	100	0.0	50.0	21	115				
Indeno(1,2,3-cd)pyrene	69	10	100	0.0	69.0	52	134				
Isophorone	79	10	100	0.0	79.0	42	124				
m+p-Cresols	71	10	100	0.0	71.0	29	110				
Naphthalene	77	10	100	0.0	77.0	40	121				
Nitrobenzene	77	10	100	0.0	77.0	45	121				
n-Nitrosodimethylamine	50	10	100	0.0	50.0	20	45				S
n-Nitroso-di-n-propylamine	89	10	100	0.0	89.0	49	119				
n-Nitrosodiphenylamine	84	20	100	0.0	84.0	51	123				
o-Cresol	73	10	100	0.0	73.0	30	117				
Pentachlorophenol	80	20	100	0.0	80.0	35	138				
Phenanthrene	77	10	100	0.0	77.0	59	120				
Phenol	50	10	100	0.0	50.0	37	75				
Pyrene	76	10	100	0.0	76.0	57	126				
Pyridine	30	10	100	0.0	30.0	16	45				
Surr: 2,4,6-Tribromophenol	148	10	200	0.0	74.0	43	140				
Surr: 2-Fluorobiphenyl	66	10	100	0.0	66.0	44	119				
Surr: 2-Fluorophenol	92	10	200	0.0	46.0	19	119				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 23 **SampType:** Sample Matrix Spike **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/20/2021 23:04 **Prep Date:** 12/17/2021 11:10
Lab ID: B21121234-001AMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	71	10	100	0.0	71.0	44	120				
Surr: Phenol-d5	89	10	200	0.0	44.0	10	65				
Surr: Terphenyl-d14	96	10	100	0.0	96.0	50	134				

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Run ID: Run Order: SV5973N.I_211220A: 25 **SampType:** Sample Matrix Spike **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/21/2021 00:09 **Prep Date:** 12/17/2021 11:10
Lab ID: B21121234-002AMS **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	61	10	100	0.0	61.0	29	116				
1,2-Dichlorobenzene	54	10	100	0.0	54.0	32	111				
1,3-Dichlorobenzene	48	10	100	0.0	48.0	28	110				
1,4-Dichlorobenzene	50	10	100	0.0	50.0	29	112				
1-Methylnaphthalene	74	10	100	0.0	74.0	41	119				
2,4,5-Trichlorophenol	70	10	100	0.0	70.0	53	123				
2,4,6-Trichlorophenol	78	10	100	0.0	78.0	50	125				
2,4-Dichlorophenol	66	10	100	0.0	66.0	47	121				
2,4-Dimethylphenol	70	10	100	0.0	70.0	31	124				
2,4-Dinitrophenol	77	20	100	0.0	77.0	23	142				
2,4-Dinitrotoluene	81	10	100	0.0	81.0	57	128				
2,6-Dinitrotoluene	77	10	100	0.0	77.0	50	118				
2-Chloronaphthalene	75	10	100	0.0	75.0	40	116				
2-Chlorophenol	69	10	100	0.0	69.0	38	117				
2-Methylnaphthalene	79	10	100	0.0	79.0	40	121				
2-Nitrophenol	71	10	100	0.0	71.0	47	123				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 25 **SampType:** Sample Matrix Spike **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/21/2021 00:09 **Prep Date:** 12/17/2021 11:10
Lab ID: B21121234-002AMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	67	20	100	0.0	67.0	27	129				
4,6-Dinitro-2-methylphenol	81	20	100	0.0	81.0	44	137				
4-Bromophenyl phenyl ether	81	10	100	0.0	81.0	55	124				
4-Chloro-3-methylphenol	82	10	100	0.0	82.0	52	119				
4-Chlorophenol	73	10	100	0.0	73.0	41	81				
4-Chlorophenyl phenyl ether	83	10	100	0.0	83.0	53	121				
4-Nitrophenol	36	20	100	0.0	36.0	15	36				
Acenaphthene	89	10	100	0.0	89.0	47	122				
Acenaphthylene	77	10	100	0.0	77.0	41	130				
Anthracene	93	10	100	0.0	93.0	57	123				
Azobenzene	71	10	100	0.0	71.0	61	116				
Benzidine	ND	20	100	0.0	14.0	10	100				
Benzo(a)anthracene	94	10	100	0.0	94.0	58	125				
Benzo(a)pyrene	81	10	100	0.0	81.0	54	128				
Benzo(b)fluoranthene	95	10	100	0.0	95.0	53	131				
Benzo(g,h,i)perylene	85	10	100	0.0	85.0	50	134				
Benzo(k)fluoranthene	84	10	100	0.0	84.0	57	129				
bis(-2-chloroethoxy)Methane	74	10	100	0.0	74.0	48	120				
bis(-2-chloroethyl)Ether	79	10	100	0.0	79.0	43	118				
bis(2-chloroisopropyl)Ether	60	10	100	0.0	60.0	37	130				
bis(2-ethylhexyl)Phthalate	88	10	100	0.0	88.0	55	135				
Butylbenzylphthalate	86	10	100	0.0	86.0	53	134				
Chrysene	91	10	100	0.0	91.0	59	123				
Dibenzo(a,h)anthracene	83	10	100	0.0	83.0	51	134				
Diethyl phthalate	86	10	100	0.0	86.0	56	125				
Dimethyl phthalate	96	10	100	0.0	96.0	45	127				
Di-n-butyl phthalate	84	10	100	0.0	84.0	59	127				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 25 **SampType:** Sample Matrix Spike **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/21/2021 00:09 **Prep Date:** 12/17/2021 11:10
Lab ID: B21121234-002AMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Di-n-octyl phthalate	85	10	100	0.0	85.0	51	140				
Fluoranthene	89	10	100	0.0	89.0	57	128				
Fluorene	87	10	100	0.0	87.0	52	124				
Hexachlorobenzene	80	10	100	0.0	80.0	53	125				
Hexachlorobutadiene	48	10	100	0.0	48.0	22	124				
Hexachlorocyclopentadiene	59	10	100	0.0	59.0	39	91				
Hexachloroethane	39	10	100	0.0	39.0	21	115				
Indeno(1,2,3-cd)pyrene	83	10	100	0.0	83.0	52	134				
Isophorone	79	10	100	0.0	79.0	42	124				
m+p-Cresols	66	10	100	0.0	66.0	29	110				
Naphthalene	72	10	100	0.0	72.0	40	121				
Nitrobenzene	75	10	100	0.0	75.0	45	121				
n-Nitrosodimethylamine	42	10	100	0.0	42.0	20	45				
n-Nitroso-di-n-propylamine	91	10	100	0.0	91.0	49	119				
n-Nitrosodiphenylamine	92	20	100	0.0	92.0	51	123				
o-Cresol	67	10	100	0.0	67.0	30	117				
Pentachlorophenol	102	20	100	0.0	102.0	35	138				
Phenanthrene	83	10	100	0.0	83.0	59	120				
Phenol	43	10	100	0.0	43.0	37	75				
Pyrene	85	10	100	0.0	85.0	57	126				
Pyridine	23	10	100	0.0	23.0	16	45				
Surr: 2,4,6-Tribromophenol	187	10	200	0.0	93.0	43	140				
Surr: 2-Fluorobiphenyl	70	10	100	0.0	70.0	44	119				
Surr: 2-Fluorophenol	77	10	200	0.0	39.0	19	119				
Surr: Nitrobenzene-d5	66	10	100	0.0	66.0	44	120				
Surr: Phenol-d5	83	10	200	0.0	41.0	10	65				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 25 **SampType:** Sample Matrix Spike **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/21/2021 00:09 **Prep Date:** 12/17/2021 11:10
Lab ID: B21121234-002AMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Terphenyl-d14	104	10	100	0.0	104.0	50	134				

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Run ID: Run Order: SV5975.I_211220A: 18 **SampType:** Sample Matrix Spike **Batch ID:** 162302
Method: SW8270C **Analysis Date:** 12/21/2021 00:47 **Prep Date:** 12/17/2021 11:09
Lab ID: B21121402-002ALMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.8	0.10	4.9	0.0	57.0	41	115				
2-Methylnaphthalene	2.9	0.10	4.9	0.0	59.0	39	114				
Naphthalene	2.9	0.10	4.9	0.0	59.0	43	114				
Surr: 2-Fluorobiphenyl	3.2	0.10	4.9	0.0	65.0	53	106				
Surr: Nitrobenzene-d5	3.2	0.10	4.9	0.0	66.0	55	111				
Surr: Terphenyl-d14	4.4	0.10	4.9	0.0	91.0	58	132				

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5975.I_211223A: 4 **SampType:** Method Blank **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/23/2021 11:56 **Prep Date:** 12/21/2021 10:16
Lab ID: MB-162392 **Units:** ug/L **Prep Method:** SW3510C

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

Associated Samples: **B21121402-001A**

Run ID: Run Order: SV5975.I_211223A: 5 **SampType:** Method Blank **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/23/2021 12:29 **Prep Date:** 12/21/2021 10:16
Lab ID: MB-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	56	2.0	100		56.0	53	106				
Surr: Nitrobenzene-d5	59	2.0	100		59.0	55	111				
Surr: Terphenyl-d14	116	2.0	100		116.0	58	132				

Associated Samples: **B21121402-001A**

Run ID: Run Order: SV5973N.I_211230A: 4 **SampType:** Method Blank **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 13:45 **Prep Date:** 12/21/2021 10:16
Lab ID: MB-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
1-Methylnaphthalene	ND	5.0									
2,4,5-Trichlorophenol	ND	5.0									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 4 **SampType:** Method Blank **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 13:45 **Prep Date:** 12/21/2021 10:16
Lab ID: MB-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4,6-Trichlorophenol	ND	5.0									
2,4-Dichlorophenol	ND	5.0									
2,4-Dimethylphenol	ND	5.0									
2,4-Dinitrophenol	ND	10									
2,4-Dinitrotoluene	ND	5.0									
2,6-Dinitrotoluene	ND	5.0									
2-Chloronaphthalene	ND	5.0									
2-Chlorophenol	ND	5.0									
2-Methylnaphthalene	ND	5.0									
2-Nitrophenol	ND	5.0									
3,3´-Dichlorobenzidine	ND	10									
4,6-Dinitro-2-methylphenol	ND	10									
4-Bromophenyl phenyl ether	ND	5.0									
4-Chloro-3-methylphenol	ND	5.0									
4-Chlorophenol	ND	5.0									
4-Chlorophenyl phenyl ether	ND	5.0									
4-Nitrophenol	ND	10									
Acenaphthene	ND	5.0									
Acenaphthylene	ND	5.0									
Anthracene	ND	5.0									
Azobenzene	ND	5.0									
Benzidine	ND	10									
Benzo(a)anthracene	ND	5.0									
Benzo(a)pyrene	ND	5.0									
Benzo(b)fluoranthene	ND	5.0									
Benzo(g,h,i)perylene	ND	5.0									
Benzo(k)fluoranthene	ND	5.0									

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 4 **SampType:** Method Blank **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 13:45 **Prep Date:** 12/21/2021 10:16
Lab ID: MB-162392 **Units:** ug/L **Prep Method:** SW3510C

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

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 4 **SampType:** Method Blank **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 13:45 **Prep Date:** 12/21/2021 10:16
Lab ID: MB-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Phenanthrene	ND	5.0									
Phenol	ND	5.0									
Pyrene	ND	5.0									
Pyridine	ND	5.0									
Surr: 2,4,6-Tribromophenol	191	5.0	200		95.0	43	140				
Surr: 2-Fluorobiphenyl	45	5.0	100		45.0	44	119				
Surr: 2-Fluorophenol	91	5.0	200		46.0	19	119				
Surr: Nitrobenzene-d5	54	5.0	100		54.0	44	120				
Surr: Phenol-d5	68	5.0	200		34.0	10	65				
Surr: Terphenyl-d14	100	5.0	100		100.0	50	134				

Associated Samples: **B21121402-001A**

Run ID: Run Order: SV5975.I_211223A: 6 **SampType:** Laboratory Control Sample **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/23/2021 13:02 **Prep Date:** 12/21/2021 10:17
Lab ID: LLCS-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.1	0.10	5.0		62.0	41	115				
2-Methylnaphthalene	3.1	0.10	5.0		62.0	39	114				
Naphthalene	3.0	0.10	5.0		60.0	43	114				
Surr: 2-Fluorobiphenyl	4.2	0.10	5.0		84.0	53	106				
Surr: Nitrobenzene-d5	4.0	0.10	5.0		79.0	55	111				
Surr: Terphenyl-d14	5.1	0.10	5.0		103.0	58	132				

Associated Samples: **B21121402-001A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5975.I_211223A: 7 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/23/2021 13:34 **Prep Date:** 12/21/2021 10:17
Lab ID: LLCSD-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.0	0.10	5.0		60.0	41	115	3.1	2.8	40.0	
2-Methylnaphthalene	2.8	0.10	5.0		57.0	39	114	3.1	9.8	40.0	
Naphthalene	3.0	0.10	5.0		59.0	43	114	3.0	1.5	40.0	
Surr: 2-Fluorobiphenyl	4.3	0.10	5.0		87.0	53	106	0.0	0.0		
Surr: Nitrobenzene-d5	4.0	0.10	5.0		80.0	55	111	0.0	0.0		
Surr: Terphenyl-d14	5.5	0.10	5.0		109.0	58	132	0.0	0.0		

Associated Samples: **B21121402-001A**

Run ID: Run Order: SV5973N.I_211230A: 5 **SampType:** Laboratory Control Sample **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 14:18 **Prep Date:** 12/21/2021 10:16
Lab ID: LCS-162392 **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	57	10	100		57.0	29	116				
1,2-Dichlorobenzene	53	10	100		53.0	32	111				
1,3-Dichlorobenzene	53	10	100		53.0	28	110				
1,4-Dichlorobenzene	54	10	100		54.0	29	112				
1-Methylnaphthalene	69	10	100		69.0	41	119				
2,4,5-Trichlorophenol	77	10	100		77.0	53	123				
2,4,6-Trichlorophenol	85	10	100		85.0	50	125				
2,4-Dichlorophenol	71	10	100		71.0	47	121				
2,4-Dimethylphenol	64	10	100		64.0	31	124				
2,4-Dinitrophenol	87	10	100		87.0	23	142				
2,4-Dinitrotoluene	85	10	100		85.0	57	128				
2,6-Dinitrotoluene	78	10	100		78.0	50	118				
2-Chloronaphthalene	69	10	100		69.0	40	116				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 5 **SampType:** Laboratory Control Sample **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 14:18 **Prep Date:** 12/21/2021 10:16
Lab ID: LCS-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Chlorophenol	66	10	100		66.0	38	117				
2-Methylnaphthalene	74	10	100		74.0	40	121				
2-Nitrophenol	71	10	100		71.0	47	123				
3,3´-Dichlorobenzidine	77	10	100		77.0	27	129				
4,6-Dinitro-2-methylphenol	86	10	100		86.0	44	137				
4-Bromophenyl phenyl ether	83	10	100		83.0	55	124				
4-Chloro-3-methylphenol	86	10	100		86.0	52	119				
4-Chlorophenol	77	10	100		77.0	41	81				
4-Chlorophenyl phenyl ether	83	10	100		83.0	53	121				
4-Nitrophenol	37	10	100		37.0	15	36				S
Acenaphthene	92	10	100		92.0	47	122				
Acenaphthylene	80	10	100		80.0	41	130				
Anthracene	86	10	100		86.0	57	123				
Azobenzene	75	10	100		75.0	61	116				
Benzidine	25	10	100		25.0	10	100				
Benzo(a)anthracene	98	10	100		98.0	58	125				
Benzo(a)pyrene	93	10	100		93.0	54	128				
Benzo(b)fluoranthene	96	10	100		96.0	53	131				
Benzo(g,h,i)perylene	95	10	100		95.0	50	134				
Benzo(k)fluoranthene	89	10	100		89.0	57	129				
bis(-2-chloroethoxy)Methane	67	10	100		67.0	48	120				
bis(-2-chloroethyl)Ether	60	10	100		60.0	43	118				
bis(2-chloroisopropyl)Ether	54	10	100		54.0	37	130				
bis(2-ethylhexyl)Phthalate	95	10	100		95.0	55	135				
Butylbenzylphthalate	94	10	100		94.0	53	134				
Chrysene	94	10	100		94.0	59	123				
Dibenzo(a,h)anthracene	94	10	100		94.0	51	134				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 5 **SampType:** Laboratory Control Sample **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 14:18 **Prep Date:** 12/21/2021 10:16
Lab ID: LCS-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	87	10	100		87.0	56	125				
Dimethyl phthalate	88	10	100		88.0	45	127				
Di-n-butyl phthalate	89	10	100		89.0	59	127				
Di-n-octyl phthalate	92	10	100		92.0	51	140				
Fluoranthene	92	10	100		92.0	57	128				
Fluorene	87	10	100		87.0	52	124				
Hexachlorobenzene	87	10	100		87.0	53	125				
Hexachlorobutadiene	51	10	100		51.0	22	124				
Hexachlorocyclopentadiene	61	10	100		61.0	39	91				
Hexachloroethane	48	10	100		48.0	21	115				
Indeno(1,2,3-cd)pyrene	93	10	100		93.0	52	134				
Isophorone	72	10	100		72.0	42	124				
m+p-Cresols	68	10	100		68.0	29	110				
Naphthalene	64	10	100		64.0	40	121				
Nitrobenzene	65	10	100		65.0	45	121				
n-Nitrosodimethylamine	34	10	100		34.0	20	45				
n-Nitroso-di-n-propylamine	66	10	100		66.0	49	119				
n-Nitrosodiphenylamine	97	10	100		97.0	51	123				
o-Cresol	67	10	100		67.0	30	117				
Pentachlorophenol	99	10	100		99.0	35	138				
Phenanthrene	91	10	100		91.0	59	120				
Phenol	45	10	100		45.0	37	75				
Pyrene	87	10	100		87.0	57	126				
Pyridine	29	10	100		29.0	16	45				
Surr: 2,4,6-Tribromophenol	208	10	200		104.0	43	140				
Surr: 2-Fluorobiphenyl	60	10	100		60.0	44	119				
Surr: 2-Fluorophenol	101	10	200		51.0	19	119				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 5 **SampType:** Laboratory Control Sample **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 14:18 **Prep Date:** 12/21/2021 10:16
Lab ID: LCS-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	59	10	100		59.0	44	120				
Surr: Phenol-d5	83	10	200		42.0	10	65				
Surr: Terphenyl-d14	92	10	100		92.0	50	134				

Associated Samples: **B21121402-001A**

Run ID: Run Order: SV5973N.I_211230A: 6 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 14:51 **Prep Date:** 12/21/2021 10:17
Lab ID: LCSD-162392 **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	100		65.0	29	116	57	13.0	20.0	
1,2-Dichlorobenzene	65	10	100		65.0	32	111	53	21.0	20.0	R
1,3-Dichlorobenzene	66	10	100		66.0	28	110	53	21.0	20.0	R
1,4-Dichlorobenzene	62	10	100		62.0	29	112	54	15.0	20.0	
1-Methylnaphthalene	82	10	100		82.0	41	119	69	17.0	20.0	
2,4,5-Trichlorophenol	92	10	100		92.0	53	123	77	17.0	20.0	
2,4,6-Trichlorophenol	98	10	100		98.0	50	125	85	14.0	20.0	
2,4-Dichlorophenol	84	10	100		84.0	47	121	71	16.0	20.0	
2,4-Dimethylphenol	71	10	100		71.0	31	124	64	11.0	20.0	
2,4-Dinitrophenol	91	10	100		91.0	23	142	87	4.9	20.0	
2,4-Dinitrotoluene	97	10	100		97.0	57	128	85	14.0	20.0	
2,6-Dinitrotoluene	84	10	100		84.0	50	118	78	7.3	20.0	
2-Chloronaphthalene	82	10	100		82.0	40	116	69	17.0	20.0	
2-Chlorophenol	81	10	100		81.0	38	117	66	20.0	20.0	
2-Methylnaphthalene	83	10	100		83.0	40	121	74	11.0	20.0	
2-Nitrophenol	83	10	100		83.0	47	123	71	16.0	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 6 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 14:51 **Prep Date:** 12/21/2021 10:17
Lab ID: LCSD-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	79	10	100		79.0	27	129	77	2.0	20.0	
4,6-Dinitro-2-methylphenol	90	10	100		90.0	44	137	86	4.5	20.0	
4-Bromophenyl phenyl ether	87	10	100		87.0	55	124	83	4.4	20.0	
4-Chloro-3-methylphenol	92	10	100		92.0	52	119	86	6.6	20.0	
4-Chlorophenol	83	10	100		83.0	41	81	77	7.4	20.0	S
4-Chlorophenyl phenyl ether	90	10	100		90.0	53	121	83	8.3	20.0	
4-Nitrophenol	45	10	100		45.0	15	36	37	20.0	20.0	S
Acenaphthene	98	10	100		98.0	47	122	92	5.9	20.0	
Acenaphthylene	87	10	100		87.0	41	130	80	8.6	20.0	
Anthracene	88	10	100		88.0	57	123	86	1.5	20.0	
Azobenzene	86	10	100		86.0	61	116	75	14.0	20.0	
Benzidine	36	10	100		36.0	10	100	25	34.0	20.0	R
Benzo(a)anthracene	97	10	100		97.0	58	125	98	0.5	20.0	
Benzo(a)pyrene	93	10	100		93.0	54	128	93	0.3	20.0	
Benzo(b)fluoranthene	101	10	100		101.0	53	131	96	5.2	20.0	
Benzo(g,h,i)perylene	96	10	100		96.0	50	134	95	0.9	20.0	
Benzo(k)fluoranthene	95	10	100		95.0	57	129	89	6.1	20.0	
bis(-2-chloroethoxy)Methane	77	10	100		77.0	48	120	67	13.0	20.0	
bis(-2-chloroethyl)Ether	69	10	100		69.0	43	118	60	13.0	20.0	
bis(2-chloroisopropyl)Ether	61	10	100		61.0	37	130	54	13.0	20.0	
bis(2-ethylhexyl)Phthalate	96	10	100		96.0	55	135	95	1.3	20.0	
Butylbenzylphthalate	97	10	100		97.0	53	134	94	3.6	20.0	
Chrysene	96	10	100		96.0	59	123	94	1.3	20.0	
Dibenzo(a,h)anthracene	99	10	100		99.0	51	134	94	5.2	20.0	
Diethyl phthalate	93	10	100		93.0	56	125	87	6.5	20.0	
Dimethyl phthalate	98	10	100		98.0	45	127	88	10.0	20.0	
Di-n-butyl phthalate	99	10	100		99.0	59	127	89	11.0	20.0	

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 6 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 14:51 **Prep Date:** 12/21/2021 10:17
Lab ID: LCSD-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Di-n-octyl phthalate	95	10	100		95.0	51	140	92	2.4	20.0	
Fluoranthene	97	10	100		97.0	57	128	92	6.2	20.0	
Fluorene	95	10	100		95.0	52	124	87	8.4	20.0	
Hexachlorobenzene	92	10	100		92.0	53	125	87	5.7	20.0	
Hexachlorobutadiene	59	10	100		59.0	22	124	51	14.0	20.0	
Hexachlorocyclopentadiene	70	10	100		70.0	39	91	61	14.0	20.0	
Hexachloroethane	57	10	100		57.0	21	115	48	18.0	20.0	
Indeno(1,2,3-cd)pyrene	99	10	100		99.0	52	134	93	5.3	20.0	
Isophorone	80	10	100		80.0	42	124	72	11.0	20.0	
m+p-Cresols	76	10	100		76.0	29	110	68	11.0	20.0	
Naphthalene	72	10	100		72.0	40	121	64	11.0	20.0	
Nitrobenzene	83	10	100		83.0	45	121	65	24.0	20.0	R
n-Nitrosodimethylamine	41	10	100		41.0	20	45	34	18.0	20.0	
n-Nitroso-di-n-propylamine	84	10	100		84.0	49	119	66	24.0	20.0	R
n-Nitrosodiphenylamine	100	10	100		100.0	51	123	97	3.0	20.0	
o-Cresol	73	10	100		73.0	30	117	67	9.1	20.0	
Pentachlorophenol	112	10	100		112.0	35	138	99	12.0	20.0	
Phenanthrene	98	10	100		98.0	59	120	91	7.6	20.0	
Phenol	53	10	100		53.0	37	75	45	16.0	20.0	
Pyrene	95	10	100		95.0	57	126	87	9.2	20.0	
Pyridine	33	10	100		33.0	16	45	29	13.0	20.0	
Surr: 2,4,6-Tribromophenol	217	10	200		109.0	43	140	0.0	0.0		
Surr: 2-Fluorobiphenyl	72	10	100		72.0	44	119	0.0	0.0		
Surr: 2-Fluorophenol	126	10	200		63.0	19	119	0.0	0.0		
Surr: Nitrobenzene-d5	71	10	100		71.0	44	120	0.0	0.0		
Surr: Phenol-d5	98	10	200		49.0	10	65	0.0	0.0		

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 6 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 14:51 **Prep Date:** 12/21/2021 10:17
Lab ID: LCSD-162392 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Terphenyl-d14	97	10	100		97.0	50	134	0.0	0.0		

Associated Samples: **B21121402-001A**

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

Run ID: Run Order: SV5975.I_211223A: 22 **SampType:** Sample Matrix Spike **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/23/2021 21:45 **Prep Date:** 12/21/2021 10:17
Lab ID: B21121613-001CLMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.5	0.10	5.0	0.0	71.0	41	115				
2-Methylnaphthalene	3.8	0.10	5.0	0.0	77.0	39	114				
Naphthalene	3.7	0.10	5.0	0.0	74.0	43	114				
Surr: 2-Fluorobiphenyl	4.9	0.10	5.0	0.0	100.0	53	106				
Surr: Nitrobenzene-d5	4.1	0.10	5.0	0.0	83.0	55	111				
Surr: Terphenyl-d14	5.3	0.10	5.0	0.0	107.0	58	132				

Associated Samples: **B21121402-001A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5975.I_211223A: 23 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/23/2021 22:18 **Prep Date:** 12/21/2021 10:17
Lab ID: B21121613-001CLMSD **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.3	0.10	5.0	0.0	67.0	41	115	3.5	5.1	40.0	
2-Methylnaphthalene	3.5	0.10	5.0	0.0	70.0	39	114	3.8	8.6	40.0	
Naphthalene	3.5	0.10	5.0	0.0	70.0	43	114	3.7	3.8	40.0	
Surr: 2-Fluorobiphenyl	4.8	0.10	5.0	0.0	95.0	53	106	0.0	0.0		
Surr: Nitrobenzene-d5	3.9	0.10	5.0	0.0	78.0	55	111	0.0	0.0		
Surr: Terphenyl-d14	5.3	0.10	5.0	0.0	105.0	58	132	0.0	0.0		

Associated Samples: **B21121402-001A**

Run ID: Run Order: SV5973N.I_211230A: 8 **SampType:** Sample Matrix Spike **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 15:56 **Prep Date:** 12/21/2021 12:07
Lab ID: B21121605-001BMS **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	53	10	97	0.0	55.0	29	116				
1,2-Dichlorobenzene	50	10	97	0.0	52.0	32	111				
1,3-Dichlorobenzene	49	10	97	0.0	51.0	28	110				
1,4-Dichlorobenzene	49	10	97	0.0	50.0	29	112				
1-Methylnaphthalene	62	10	97	0.0	63.0	41	119				
2,4,5-Trichlorophenol	69	10	97	0.0	71.0	53	123				
2,4,6-Trichlorophenol	75	10	97	0.0	77.0	50	125				
2,4-Dichlorophenol	61	10	97	0.0	62.0	47	121				
2,4-Dimethylphenol	62	10	97	0.0	64.0	31	124				
2,4-Dinitrophenol	70	10	97	0.0	72.0	23	142				
2,4-Dinitrotoluene	77	10	97	0.0	79.0	57	128				
2,6-Dinitrotoluene	66	10	97	0.0	68.0	50	118				
2-Chloronaphthalene	63	10	97	0.0	65.0	40	116				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 8 **SampType:** Sample Matrix Spike **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 15:56 **Prep Date:** 12/21/2021 12:07
Lab ID: B21121605-001BMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Chlorophenol	54	10	97	0.0	56.0	38	117				
2-Methylnaphthalene	66	10	97	0.0	68.0	40	121				
2-Nitrophenol	61	10	97	0.0	62.0	47	123				
3,3´-Dichlorobenzidine	45	10	97	0.0	47.0	27	129				
4,6-Dinitro-2-methylphenol	72	10	97	0.0	75.0	44	137				
4-Bromophenyl phenyl ether	71	10	97	0.0	73.0	55	124				
4-Chloro-3-methylphenol	72	10	97	0.0	74.0	52	119				
4-Chlorophenol	57	10	97	0.0	59.0	41	81				
4-Chlorophenyl phenyl ether	72	10	97	0.0	74.0	53	121				
4-Nitrophenol	31	10	97	0.0	32.0	15	36				
Acenaphthene	80	10	97	0.0	83.0	47	122				
Acenaphthylene	73	10	97	0.0	75.0	41	130				
Anthracene	76	10	97	0.0	78.0	57	123				
Azobenzene	64	10	97	0.0	66.0	61	116				
Benzidine	ND	10	97	0.0	0.0	10	100				1S
Benzo(a)anthracene	82	10	97	0.0	85.0	58	125				
Benzo(a)pyrene	80	10	97	0.0	82.0	54	128				
Benzo(b)fluoranthene	83	10	97	0.0	86.0	53	131				
Benzo(g,h,i)perylene	82	10	97	0.0	84.0	50	134				
Benzo(k)fluoranthene	75	10	97	0.0	77.0	57	129				
bis(-2-chloroethoxy)Methane	57	10	97	0.0	59.0	48	120				
bis(-2-chloroethyl)Ether	53	10	97	0.0	55.0	43	118				
bis(2-chloroisopropyl)Ether	47	10	97	0.0	48.0	37	130				
bis(2-ethylhexyl)Phthalate	78	10	97	0.0	81.0	55	135				
Butylbenzylphthalate	78	10	97	0.0	81.0	53	134				
Chrysene	79	10	97	0.0	81.0	59	123				
Dibenzo(a,h)anthracene	79	10	97	0.0	81.0	51	134				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 8 **SampType:** Sample Matrix Spike **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 15:56 **Prep Date:** 12/21/2021 12:07
Lab ID: B21121605-001BMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	74	10	97	0.0	77.0	56	125				
Dimethyl phthalate	80	10	97	0.0	83.0	45	127				
Di-n-butyl phthalate	79	10	97	0.0	81.0	59	127				
Di-n-octyl phthalate	79	10	97	0.0	82.0	51	140				
Fluoranthene	78	10	97	0.0	80.0	57	128				
Fluorene	77	10	97	0.0	79.0	52	124				
Hexachlorobenzene	72	10	97	0.0	75.0	53	125				
Hexachlorobutadiene	48	10	97	0.0	49.0	22	124				
Hexachlorocyclopentadiene	50	10	97	0.0	51.0	39	91				
Hexachloroethane	43	10	97	0.0	45.0	21	115				
Indeno(1,2,3-cd)pyrene	80	10	97	0.0	82.0	52	134				
Isophorone	64	10	97	0.0	66.0	42	124				
m+p-Cresols	58	10	97	0.0	59.0	29	110				
Naphthalene	58	10	97	0.0	59.0	40	121				
Nitrobenzene	61	10	97	0.0	62.0	45	121				
n-Nitrosodimethylamine	30	10	97	0.0	31.0	20	45				
n-Nitroso-di-n-propylamine	62	10	97	0.0	64.0	49	119				
n-Nitrosodiphenylamine	81	10	97	0.0	83.0	51	123				
o-Cresol	57	10	97	0.0	58.0	30	117				
Pentachlorophenol	89	10	97	0.0	91.0	35	138				
Phenanthrene	81	10	97	0.0	83.0	59	120				
Phenol	37	10	97	0.0	38.0	37	75				
Pyrene	76	10	97	0.0	78.0	57	126				
Pyridine	11	10	97	0.0	11.0	16	45				S
Surr: 2,4,6-Tribromophenol	167	10	194	0.0	86.0	43	140				
Surr: 2-Fluorobiphenyl	54	10	97	0.0	55.0	44	119				
Surr: 2-Fluorophenol	69	10	194	0.0	36.0	19	119				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211230A: 8 **SampType:** Sample Matrix Spike **Batch ID:** 162392
Method: SW8270C **Analysis Date:** 12/30/2021 15:56 **Prep Date:** 12/21/2021 12:07
Lab ID: B21121605-001BMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	54	10	97	0.0	55.0	44	120				
Surr: Phenol-d5	65	10	194	0.0	34.0	10	65				
Surr: Terphenyl-d14	77	10	97	0.0	80.0	50	134				

Associated Samples: **B21121402-001A**

Run ID: Run Order: SV5975.I_211220A: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372112
Method: SW8270C **Analysis Date:** 12/21/2021 04:34 **Prep Date:**
Lab ID: 20-Dec-21_CCV_25 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.3	0.10	2.0		114.0	50	150				
2-Methylnaphthalene	2.4	0.10	2.0		119.0	50	150				
Naphthalene	2.5	0.10	2.0		124.0	50	150				
Surr: 2-Fluorobiphenyl	2.2	0.10	2.0		111.0	50	150				
Surr: Nitrobenzene-d5	1.6	0.10	2.0		80.0	50	150				
Surr: Terphenyl-d14	1.8	0.10	2.0		89.0	50	150				

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5975.I_211220A: 9 **SampType:** Initial Calibration Verification Standard **Batch ID:** R372112
Method: SW8270C **Analysis Date:** 12/20/2021 19:55 **Prep Date:**
Lab ID: 20-Dec-21_CCV_9 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.3	0.10	2.0		114.0	80	120				
2-Methylnaphthalene	2.3	0.10	2.0		115.0	80	120				
Naphthalene	2.3	0.10	2.0		113.0	80	120				
Surr: 2-Fluorobiphenyl	2.2	0.10	2.0		108.0	80	120				
Surr: Nitrobenzene-d5	2.2	0.10	2.0		110.0	80	120				
Surr: Terphenyl-d14	2.2	0.10	2.0		112.0	80	120				

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Run ID: Run Order: SV5973N.I_211220A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372073
Method: SW8270C **Analysis Date:** 12/20/2021 17:07 **Prep Date:**
Lab ID: 20-Dec-21_CAL_4 **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		97.0	80	120				
1,2-Dichlorobenzene	79	10	75		106.0	80	120				
1,3-Dichlorobenzene	79	10	75		106.0	80	120				
1,4-Dichlorobenzene	74	10	75		99.0	80	120				
1-Methylnaphthalene	75	10	75		99.0	80	120				
2,4,5-Trichlorophenol	67	10	75		89.0	80	120				
2,4,6-Trichlorophenol	72	10	75		96.0	80	120				
2,4-Dichlorophenol	71	10	75		95.0	80	120				
2,4-Dimethylphenol	77	10	75		102.0	80	120				
2,4-Dinitrophenol	80	10	75		107.0	80	120				
2,4-Dinitrotoluene	73	10	75		97.0	80	120				
2,6-Dinitrotoluene	74	10	75		99.0	80	120				
2-Chloronaphthalene	73	10	75		97.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372073
Method: SW8270C **Analysis Date:** 12/20/2021 17:07 **Prep Date:**
Lab ID: 20-Dec-21_CAL_4 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Chlorophenol	82	10	75		110.0	80	120				
2-Methylnaphthalene	71	10	75		95.0	80	120				
2-Nitrophenol	75	10	75		100.0	80	120				
3,3´-Dichlorobenzidine	73	10	75		98.0	80	120				
4,6-Dinitro-2-methylphenol	81	10	75		108.0	80	120				
4-Bromophenyl phenyl ether	78	10	75		104.0	80	120				
4-Chloro-3-methylphenol	71	10	75		95.0	80	120				
4-Chlorophenol	76	10	75		102.0	80	120				
4-Chlorophenyl phenyl ether	78	10	75		103.0	80	120				
4-Nitrophenol	74	10	75		98.0	80	120				
Acenaphthene	75	10	75		100.0	80	120				
Acenaphthylene	74	10	75		98.0	80	120				
Anthracene	70	10	75		94.0	80	120				
Azobenzene	67	10	75		89.0	80	120				
Benzidine	77	10	75		103.0	80	120				
Benzo(a)anthracene	75	10	75		101.0	80	120				
Benzo(a)pyrene	74	10	75		99.0	80	120				
Benzo(b)fluoranthene	77	10	75		103.0	80	120				
Benzo(g,h,i)perylene	76	10	75		101.0	80	120				
Benzo(k)fluoranthene	72	10	75		96.0	80	120				
bis(-2-chloroethoxy)Methane	71	10	75		94.0	80	120				
bis(-2-chloroethyl)Ether	75	10	75		101.0	80	120				
bis(2-chloroisopropyl)Ether	77	10	75		102.0	80	120				
bis(2-ethylhexyl)Phthalate	74	10	75		98.0	80	120				
Butylbenzylphthalate	70	10	75		94.0	80	120				
Chrysene	75	10	75		100.0	80	120				
Dibenzo(a,h)anthracene	72	10	75		96.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372073
Method: SW8270C **Analysis Date:** 12/20/2021 17:07 **Prep Date:**
Lab ID: 20-Dec-21_CAL_4 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	75	10	75		100.0	80	120				
Dimethyl phthalate	74	10	75		99.0	80	120				
Di-n-butyl phthalate	69	10	75		92.0	80	120				
Di-n-octyl phthalate	74	10	75		99.0	80	120				
Fluoranthene	72	10	75		96.0	80	120				
Fluorene	74	10	75		98.0	80	120				
Hexachlorobenzene	74	10	75		98.0	80	120				
Hexachlorobutadiene	74	10	75		98.0	80	120				
Hexachlorocyclopentadiene	73	10	75		97.0	80	120				
Hexachloroethane	69	10	75		91.0	80	120				
Indeno(1,2,3-cd)pyrene	74	10	75		99.0	80	120				
Isophorone	74	10	75		98.0	80	120				
m+p-Cresols	74	10	75		99.0	80	120				
Naphthalene	74	10	75		98.0	80	120				
Nitrobenzene	66	10	75		88.0	80	120				
n-Nitrosodimethylamine	77	10	75		103.0	80	120				
n-Nitroso-di-n-propylamine	80	10	75		107.0	80	120				
n-Nitrosodiphenylamine	74	10	75		99.0	80	120				
o-Cresol	78	10	75		104.0	80	120				
Pentachlorophenol	80	10	75		107.0	80	120				
Phenanthrene	73	10	75		98.0	80	120				
Phenol	76	10	75		101.0	80	120				
Pyrene	73	10	75		97.0	80	120				
Pyridine	77	10	75		103.0	80	120				
Surr: 2,4,6-Tribromophenol	71	10	75		95.0	80	120				
Surr: 2-Fluorophenol	82	10	75		109.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372073
Method: SW8270C **Analysis Date:** 12/20/2021 17:07 **Prep Date:**
Lab ID: 20-Dec-21_CAL_4 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Phenol-d5	79	10	75		105.0	80	120				

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Run ID: Run Order: SV5973N.I_211220A: 15 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372073
Method: SW8270C **Analysis Date:** 12/21/2021 02:51 **Prep Date:**
Lab ID: 20-Dec-21_CCV_23 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	77	10	75		102.0	50	150				
1,2-Dichlorobenzene	84	10	75		112.0	50	150				
1,3-Dichlorobenzene	82	10	75		110.0	50	150				
1,4-Dichlorobenzene	79	10	75		105.0	50	150				
1-Methylnaphthalene	76	10	75		101.0	50	150				
2,4,5-Trichlorophenol	73	10	75		98.0	50	150				
2,4,6-Trichlorophenol	75	10	75		100.0	50	150				
2,4-Dichlorophenol	78	10	75		104.0	50	150				
2,4-Dimethylphenol	79	10	75		105.0	50	150				
2,4-Dinitrophenol	70	10	75		94.0	50	150				
2,4-Dinitrotoluene	77	10	75		103.0	50	150				
2,6-Dinitrotoluene	72	10	75		96.0	50	150				
2-Chloronaphthalene	73	10	75		98.0	50	150				
2-Chlorophenol	86	10	75		114.0	50	150				
2-Methylnaphthalene	76	10	75		101.0	50	150				
2-Nitrophenol	76	10	75		102.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 15 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372073
Method: SW8270C **Analysis Date:** 12/21/2021 02:51 **Prep Date:**
Lab ID: 20-Dec-21_CCV_23 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	76	10	75		102.0	50	150				
4,6-Dinitro-2-methylphenol	67	10	75		90.0	50	150				
4-Bromophenyl phenyl ether	82	10	75		109.0	50	150				
4-Chloro-3-methylphenol	79	10	75		106.0	50	150				
4-Chlorophenol	84	10	75		112.0	50	150				
4-Chlorophenyl phenyl ether	73	10	75		98.0	50	150				
4-Nitrophenol	82	10	75		109.0	50	150				
Acenaphthene	79	10	75		106.0	50	150				
Acenaphthylene	74	10	75		98.0	50	150				
Anthracene	83	10	75		111.0	50	150				
Azobenzene	82	10	75		110.0	50	150				
Benzidine	69	10	75		92.0	50	150				
Benzo(a)anthracene	80	10	75		107.0	50	150				
Benzo(a)pyrene	79	10	75		106.0	50	150				
Benzo(b)fluoranthene	86	10	75		114.0	50	150				
Benzo(g,h,i)perylene	81	10	75		108.0	50	150				
Benzo(k)fluoranthene	80	10	75		106.0	50	150				
bis(-2-chloroethoxy)Methane	73	10	75		98.0	50	150				
bis(-2-chloroethyl)Ether	79	10	75		106.0	50	150				
bis(2-chloroisopropyl)Ether	78	10	75		104.0	50	150				
bis(2-ethylhexyl)Phthalate	74	10	75		99.0	50	150				
Butylbenzylphthalate	76	10	75		101.0	50	150				
Chrysene	79	10	75		105.0	50	150				
Di-n-butyl phthalate	76	10	75		101.0	50	150				
Di-n-octyl phthalate	75	10	75		100.0	50	150				
Dibenzo(a,h)anthracene	75	10	75		100.0	50	150				
Diethyl phthalate	77	10	75		103.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211220A: 15 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372073
Method: SW8270C **Analysis Date:** 12/21/2021 02:51 **Prep Date:**
Lab ID: 20-Dec-21_CCV_23 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Dimethyl phthalate	74	10	75		99.0	50	150				
Fluoranthene	79	10	75		105.0	50	150				
Fluorene	75	10	75		100.0	50	150				
Hexachlorobenzene	74	10	75		99.0	50	150				
Hexachlorobutadiene	75	10	75		100.0	50	150				
Hexachlorocyclopentadiene	71	10	75		94.0	50	150				
Hexachloroethane	72	10	75		96.0	50	150				
Indeno(1,2,3-cd)pyrene	78	10	75		104.0	50	150				
Isophorone	78	10	75		105.0	50	150				
m+p-Cresols	79	10	75		105.0	50	150				
n-Nitroso-di-n-propylamine	80	10	75		107.0	50	150				
n-Nitrosodimethylamine	67	10	75		89.0	50	150				
n-Nitrosodiphenylamine	85	10	75		113.0	50	150				
Naphthalene	84	10	75		111.0	50	150				
Nitrobenzene	67	10	75		89.0	50	150				
o-Cresol	83	10	75		110.0	50	150				
Pentachlorophenol	91	10	75		121.0	50	150				
Phenanthrene	78	10	75		104.0	50	150				
Phenol	80	10	75		106.0	50	150				
Pyrene	78	10	75		104.0	50	150				
Pyridine	75	10	75		100.0	50	150				
Surr: 2,4,6-Tribromophenol	81	10	75		108.0	50	150				
Surr: 2-Fluorophenol	88	10	75		117.0	50	150				
Surr: Phenol-d5	83	10	75		110.0	50	150				

Associated Samples: **B21121402-001A, B21121402-002A, B21121402-003A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211223B: 6 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372321
Method: SW8270C **Analysis Date:** 12/24/2021 08:39 **Prep Date:**
Lab ID: 23-Dec-21_CCV_37 **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	80	120				
1,2-Dichlorobenzene	76	10	75		102.0	80	120				
1,3-Dichlorobenzene	78	10	75		104.0	80	120				
1,4-Dichlorobenzene	74	10	75		99.0	80	120				
1-Methylnaphthalene	75	10	75		100.0	80	120				
2,4,5-Trichlorophenol	82	10	75		109.0	80	120				
2,4,6-Trichlorophenol	79	10	75		106.0	80	120				
2,4-Dichlorophenol	79	10	75		105.0	80	120				
2,4-Dimethylphenol	74	10	75		99.0	80	120				
2,4-Dinitrophenol	72	10	75		96.0	80	120				
2,4-Dinitrotoluene	80	10	75		107.0	80	120				
2,6-Dinitrotoluene	79	10	75		105.0	80	120				
2-Chloronaphthalene	76	10	75		101.0	80	120				
2-Chlorophenol	78	10	75		104.0	80	120				
2-Methylnaphthalene	75	10	75		101.0	80	120				
2-Nitrophenol	75	10	75		100.0	80	120				
3,3´-Dichlorobenzidine	78	10	75		104.0	80	120				
4,6-Dinitro-2-methylphenol	73	10	75		97.0	80	120				
4-Bromophenyl phenyl ether	77	10	75		103.0	80	120				
4-Chloro-3-methylphenol	77	10	75		103.0	80	120				
4-Chlorophenol	76	10	75		101.0	80	120				
4-Chlorophenyl phenyl ether	75	10	75		101.0	80	120				
4-Nitrophenol	74	10	75		99.0	80	120				
Acenaphthene	81	10	75		108.0	80	120				
Acenaphthylene	76	10	75		102.0	80	120				
Anthracene	78	10	75		104.0	80	120				
Azobenzene	80	10	75		107.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211223B: 6 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372321
Method: SW8270C **Analysis Date:** 12/24/2021 08:39 **Prep Date:**
Lab ID: 23-Dec-21_CCV_37 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzidine	71	10	75		94.0	80	120				
Benzo(a)anthracene	77	10	75		103.0	80	120				
Benzo(a)pyrene	80	10	75		107.0	80	120				
Benzo(b)fluoranthene	79	10	75		105.0	80	120				
Benzo(g,h,i)perylene	85	10	75		114.0	80	120				
Benzo(k)fluoranthene	82	10	75		109.0	80	120				
bis(-2-chloroethoxy)Methane	73	10	75		97.0	80	120				
bis(-2-chloroethyl)Ether	71	10	75		95.0	80	120				
bis(2-chloroisopropyl)Ether	72	10	75		96.0	80	120				
bis(2-ethylhexyl)Phthalate	74	10	75		99.0	80	120				
Butylbenzylphthalate	75	10	75		100.0	80	120				
Chrysene	78	10	75		103.0	80	120				
Dibenzo(a,h)anthracene	85	10	75		113.0	80	120				
Diethyl phthalate	77	10	75		103.0	80	120				
Dimethyl phthalate	74	10	75		99.0	80	120				
Di-n-butyl phthalate	75	10	75		101.0	80	120				
Di-n-octyl phthalate	78	10	75		104.0	80	120				
Fluoranthene	75	10	75		99.0	80	120				
Fluorene	79	10	75		105.0	80	120				
Hexachlorobenzene	77	10	75		103.0	80	120				
Hexachlorobutadiene	74	10	75		99.0	80	120				
Hexachlorocyclopentadiene	77	10	75		103.0	80	120				
Hexachloroethane	79	10	75		105.0	80	120				
Indeno(1,2,3-cd)pyrene	86	10	75		115.0	80	120				
Isophorone	72	10	75		96.0	80	120				
m+p-Cresols	79	10	75		105.0	80	120				
Naphthalene	78	10	75		103.0	80	120				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211223B: 6 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372321
Method: SW8270C **Analysis Date:** 12/24/2021 08:39 **Prep Date:**
Lab ID: 23-Dec-21_CCV_37 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Nitrobenzene	77	10	75		102.0	80	120				
n-Nitrosodimethylamine	63	10	75		84.0	80	120				
n-Nitroso-di-n-propylamine	71	10	75		95.0	80	120				
n-Nitrosodiphenylamine	88	10	75		117.0	80	120				
o-Cresol	76	10	75		101.0	80	120				
Pentachlorophenol	84	10	75		112.0	80	120				
Phenanthrene	77	10	75		103.0	80	120				
Phenol	80	10	75		107.0	80	120				
Pyrene	77	10	75		103.0	80	120				
Pyridine	72	10	75		96.0	80	120				
Surr: 2,4,6-Tribromophenol	82	10	75		110.0	80	120				
Surr: 2-Fluorophenol	82	10	75		109.0	80	120				
Surr: Phenol-d5	77	10	75		103.0	80	120				

Associated Samples: **B21121402-001A**

Run ID: Run Order: SV5973N.I_211223B: 16 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372321
Method: SW8270C **Analysis Date:** 12/24/2021 16:14 **Prep Date:**
Lab ID: 23-Dec-21_CCV_51 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	74	10	75		98.0	50	150				
1,2-Dichlorobenzene	69	10	75		92.0	50	150				
1,3-Dichlorobenzene	73	10	75		97.0	50	150				
1,4-Dichlorobenzene	73	10	75		97.0	50	150				
1-Methylnaphthalene	71	10	75		94.0	50	150				
2,4,5-Trichlorophenol	71	10	75		95.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211223B: 16 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372321
Method: SW8270C **Analysis Date:** 12/24/2021 16:14 **Prep Date:**
Lab ID: 23-Dec-21_CCV_51 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4,6-Trichlorophenol	80	10	75		106.0	50	150				
2,4-Dichlorophenol	76	10	75		101.0	50	150				
2,4-Dimethylphenol	69	10	75		92.0	50	150				
2,4-Dinitrophenol	61	10	75		81.0	50	150				
2,4-Dinitrotoluene	75	10	75		100.0	50	150				
2,6-Dinitrotoluene	75	10	75		101.0	50	150				
2-Chloronaphthalene	75	10	75		100.0	50	150				
2-Chlorophenol	74	10	75		99.0	50	150				
2-Methylnaphthalene	72	10	75		97.0	50	150				
2-Nitrophenol	71	10	75		95.0	50	150				
3,3´-Dichlorobenzidine	68	10	75		91.0	50	150				
4,6-Dinitro-2-methylphenol	70	10	75		94.0	50	150				
4-Bromophenyl phenyl ether	78	10	75		104.0	50	150				
4-Chloro-3-methylphenol	70	10	75		93.0	50	150				
4-Chlorophenol	83	10	75		110.0	50	150				
4-Chlorophenyl phenyl ether	73	10	75		98.0	50	150				
4-Nitrophenol	71	10	75		95.0	50	150				
Acenaphthene	79	10	75		105.0	50	150				
Acenaphthylene	77	10	75		102.0	50	150				
Anthracene	76	10	75		102.0	50	150				
Azobenzene	79	10	75		105.0	50	150				
Benzidine	50	10	75		67.0	50	150				
Benzo(a)anthracene	75	10	75		100.0	50	150				
Benzo(a)pyrene	74	10	75		99.0	50	150				
Benzo(b)fluoranthene	69	10	75		93.0	50	150				
Benzo(g,h,i)perylene	79	10	75		106.0	50	150				
Benzo(k)fluoranthene	70	10	75		93.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211223B: 16 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372321
Method: SW8270C **Analysis Date:** 12/24/2021 16:14 **Prep Date:**
Lab ID: 23-Dec-21_CCV_51 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
bis(-2-chloroethoxy)Methane	69	10	75		92.0	50	150				
bis(-2-chloroethyl)Ether	79	10	75		106.0	50	150				
bis(2-chloroisopropyl)Ether	67	10	75		90.0	50	150				
bis(2-ethylhexyl)Phthalate	79	10	75		106.0	50	150				
Butylbenzylphthalate	80	10	75		106.0	50	150				
Chrysene	73	10	75		97.0	50	150				
Dibenzo(a,h)anthracene	77	10	75		103.0	50	150				
Diethyl phthalate	77	10	75		103.0	50	150				
Dimethyl phthalate	72	10	75		96.0	50	150				
Di-n-butyl phthalate	80	10	75		106.0	50	150				
Di-n-octyl phthalate	75	10	75		99.0	50	150				
Fluoranthene	75	10	75		101.0	50	150				
Fluorene	80	10	75		107.0	50	150				
Hexachlorobenzene	78	10	75		104.0	50	150				
Hexachlorobutadiene	68	10	75		91.0	50	150				
Hexachlorocyclopentadiene	73	10	75		97.0	50	150				
Hexachloroethane	79	10	75		105.0	50	150				
Indeno(1,2,3-cd)pyrene	78	10	75		104.0	50	150				
Isophorone	70	10	75		93.0	50	150				
m+p-Cresols	68	10	75		91.0	50	150				
Naphthalene	75	10	75		100.0	50	150				
Nitrobenzene	73	10	75		98.0	50	150				
n-Nitrosodimethylamine	65	10	75		86.0	50	150				
n-Nitroso-di-n-propylamine	64	10	75		86.0	50	150				
n-Nitrosodiphenylamine	85	10	75		114.0	50	150				
o-Cresol	72	10	75		96.0	50	150				
Pentachlorophenol	76	10	75		101.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5973N.I_211223B: 16 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372321
Method: SW8270C **Analysis Date:** 12/24/2021 16:14 **Prep Date:**
Lab ID: 23-Dec-21_CCV_51 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Phenanthrene	75	10	75		100.0	50	150				
Phenol	69	10	75		92.0	50	150				
Pyrene	77	10	75		103.0	50	150				
Pyridine	64	10	75		85.0	50	150				
Surr: 2,4,6-Tribromophenol	77	10	75		102.0	50	150				
Surr: 2-Fluorophenol	81	10	75		108.0	50	150				
Surr: Phenol-d5	72	10	75		96.0	50	150				

Associated Samples: **B21121402-001A**

Run ID: Run Order: SV5975.I_211223A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372332
Method: SW8270C **Analysis Date:** 12/23/2021 10:50 **Prep Date:**
Lab ID: 23-Dec-21_CCV_2 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.3	0.10	2.0		113.0	80	120				
2-Methylnaphthalene	2.3	0.10	2.0		115.0	80	120				
Naphthalene	2.2	0.10	2.0		111.0	80	120				
Surr: 2-Fluorobiphenyl	2.3	0.10	2.0		116.0	80	120				
Surr: Nitrobenzene-d5	2.0	0.10	2.0		101.0	80	120				
Surr: Terphenyl-d14	2.2	0.10	2.0		109.0	80	120				

Associated Samples: **B21121402-001A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Run ID: Run Order: SV5975.I_211223A: 24 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R372332
Method: SW8270C **Analysis Date:** 12/23/2021 22:51 **Prep Date:**
Lab ID: 23-Dec-21_CCV_24 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.5	0.10	2.0		125.0	50	150				
2-Methylnaphthalene	2.4	0.10	2.0		120.0	50	150				
Naphthalene	2.4	0.10	2.0		121.0	50	150				
Surr: 2-Fluorobiphenyl	2.6	0.10	2.0		128.0	50	150				
Surr: Nitrobenzene-d5	2.1	0.10	2.0		106.0	50	150				
Surr: Terphenyl-d14	2.0	0.10	2.0		100.0	50	150				

Associated Samples: **B21121402-001A**

Analytical QC Exceptions Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01

Report Date: 01/27/2022

Analysis Method	Analysis	Batch ID	Associated Samples	Sample Type	Lab ID	Analysis Date	Analysis Time	Analyte	%REC	Low Limit	High Limit	% RPD	RPD Limit	Qual
SW6020	Metals by ICP-MS, Total	162274	001C, 002C, 003C	SD	B21121402-001CDIL	12/20/2021	13:54	Lead					10.0	N
SW8270C	Low Level PAH	162302	001A, 002A, 003A	MBLK	MB-162302	12/20/2021	21:32	Surr: Nitrobenzene-d5	52.0	55	111			S
				LCS-DOD	LLCS-162302	12/20/2021	22:05	Surr: Terphenyl-d14	55.0	58	132			S
	Semi-Volatile Organic Compounds, Extended List	162302	001A, 002A, 003A	LCS-DOD	LCS-162302	12/20/2021	21:27	4-Nitrophenol	39.0	15	36			S
								n-Nitrosodimethylamine	48.0	20	45			S
				LCSD-DOD	LCSD-162302	12/20/2021	21:59	4-Nitrophenol	44.0	15	36	12	20.0	S
								n-Nitrosodimethylamine	51.0	20	45	6.2	20.0	S
				MS-DOD	B21121234-001AMS	12/20/2021	23:04	4-Chlorophenol	83.0	41	81			S
								4-Nitrophenol	39.0	15	36			S
								Benzidine	7.0	10	100			S
								n-Nitrosodimethylamine	50.0	20	45			S
		162392	001A	LCS-DOD	LCS-162392	12/30/2021	14:18	4-Nitrophenol	37.0	15	36			S
				LCSD-DOD	LCSD-162392	12/30/2021	14:51	1,2-Dichlorobenzene	65.0	32	111	21	20.0	R
								1,3-Dichlorobenzene	66.0	28	110	21	20.0	R
								4-Chlorophenol	83.0	41	81	7.4	20.0	S
								4-Nitrophenol	45.0	15	36	20	20.0	S
								Benzidine	36.0	10	100	34	20.0	R
								Nitrobenzene	83.0	45	121	24	20.0	R
								n-Nitroso-di-n-propylamine	84.0	49	119	24	20.0	R
				MS-DOD	B21121605-001BMS	12/30/2021	15:56	Benzidine	0.0	10	100			1S
								Pyridine	11.0	16	45			S

Preparation and Analysis Dates Report

Work Order: B21121402
Client: AECOM - Honolulu
Project Name: CV18F0126/60571032.02.20.01
Report Date: 1/27/2022

Lab ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Method	Prep Date	Prep Batch	Analysis Method	Analysis Date
001A	ERH2186 (RHMW06)	12/13/2021 17:10	Ground Water	Low Level PAH		SW3510C	12/17/2021 11:09	162302	SW8270C	12/20/2021 23:10
						SW3510C	12/17/2021 11:09	162302	SW8270C	12/20/2021 23:43
						SW3510C	12/21/2021 12:07	162392	SW8270C	12/23/2021 14:07
						SW3510C	12/21/2021 12:07	162392	SW8270C	12/23/2021 14:40
				Semi-Volatile Organic Compounds		SW3510C	12/17/2021 11:09	162302	SW8270C	12/21/2021 01:14
						SW3510C	12/21/2021 12:07	162392	SW8270C	12/24/2021 15:42
001B	ERH2186 (RHMW06)	12/13/2021 17:10	Ground Water	Diesel Range Organics		SW3520C	12/16/2021 15:02	162268	SW8015C	12/20/2021 13:49
						SW3520C	12/16/2021 15:02	162268	SW8015C	12/21/2021 01:18
001C	ERH2186 (RHMW06)	12/13/2021 17:10	Ground Water	Metals by ICP-MS, Total		SW3010A	12/16/2021 15:59	162274	SW6020	12/20/2021 13:48
001F	ERH2186 (RHMW06)	12/13/2021 17:10	Ground Water	EDB in Water by ECD		SW8011	12/17/2021 09:02	162287	SW8011	12/17/2021 18:27
002A	ERH2197 (OWDFMW01)	12/13/2021 14:35	Ground Water	Low Level PAH		SW3510C	12/17/2021 11:09	162302	SW8270C	12/21/2021 00:15
						SW3510C	12/17/2021 11:09	162302	SW8270C	12/21/2021 15:49
				Semi-Volatile Organic Compounds		SW3510C	12/17/2021 11:09	162302	SW8270C	12/21/2021 01:46
002B	ERH2197 (OWDFMW01)	12/13/2021 14:35	Ground Water	Diesel Range Organics		SW3520C	12/16/2021 15:02	162268	SW8015C	12/18/2021 13:10
						SW3520C	12/16/2021 15:02	162268	SW8015C	12/21/2021 09:10
002C	ERH2197 (OWDFMW01)	12/13/2021 14:35	Ground Water	Metals by ICP-MS, Total		SW3010A	12/16/2021 15:59	162274	SW6020	12/20/2021 13:35
002F	ERH2197 (OWDFMW01)	12/13/2021 14:35	Ground Water	EDB in Water by ECD		SW8011	12/17/2021 09:03	162287	SW8011	12/17/2021 17:08
003A	ERH2203 (RHMW14-03)	12/13/2021 15:15	Ground Water	Low Level PAH		SW3510C	12/17/2021 11:09	162302	SW8270C	12/21/2021 01:20
				Semi-Volatile Organic Compounds		SW3510C	12/17/2021 11:09	162302	SW8270C	12/21/2021 02:19
003B	ERH2203 (RHMW14-03)	12/13/2021 15:15	Ground Water	Diesel Range Organics		SW3520C	12/16/2021 15:02	162268	SW8015C	12/20/2021 13:06
						SW3520C	12/16/2021 15:02	162268	SW8015C	12/20/2021 23:51
003C	ERH2203 (RHMW14-03)	12/13/2021 15:15	Ground Water	Metals by ICP-MS, Total		SW3010A	12/16/2021 15:59	162274	SW6020	12/20/2021 13:42
003F	ERH2203 (RHMW14-03)	12/13/2021 15:15	Ground Water	EDB in Water by ECD		SW8011	12/17/2021 09:03	162287	SW8011	12/17/2021 17:28
008A	ERH2196 Client Trip Blank 8011	12/13/2021 14:35	Trip Blank	EDB in Water by ECD		SW8011	12/17/2021 09:03	162287	SW8011	12/17/2021 17:48
013A	ERH2202 Client Trip Blank 8011	12/13/2021 14:35	Trip Blank	EDB in Water by ECD		SW8011	12/17/2021 09:03	162287	SW8011	12/17/2021 18:07

Chemical Abstracts Service (CAS) Registry Numbers

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B21121402
Project: CV18F0126/60571032.02.20.01 **Report Date:** 01/27/2022

Analyses	CAS No
AGGREGATE ORGANICS	
Organic Carbon, Total (TOC)	7440-44-0
METALS, TOTAL	
Lead	7439-92-1
VOLATILE ORGANIC COMPOUNDS	
Benzene	71-43-2
Bromobenzene	108-86-1
Bromochloromethane	74-97-5
Bromodichloromethane	75-27-4
Bromoform	75-25-2
Bromomethane	74-83-9
Carbon tetrachloride	56-23-5
Chlorobenzene	108-90-7
Chlorodibromomethane	124-48-1
Chloroethane	75-00-3
Chloroform	67-66-3
Chloromethane	74-87-3
1,2-Dibromoethane	106-93-4
2-Chlorotoluene	95-49-8
4-Chlorotoluene	106-43-4
Dibromomethane	74-95-3
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Dichlorodifluoromethane	75-71-8
1,1-Dichloroethane	75-34-3
1,2-Dichloroethane	107-06-2
1,1-Dichloroethene	75-35-4
cis-1,2-Dichloroethene	156-59-2
trans-1,2-Dichloroethene	156-60-5
1,2-Dichloropropane	78-87-5
1,3-Dichloropropane	142-28-9
2,2-Dichloropropane	594-20-7
1,1-Dichloropropene	563-58-6
cis-1,3-Dichloropropene	10061-01-5
trans-1,3-Dichloropropene	10061-02-6
Ethylbenzene	100-41-4
Methyl ethyl ketone	78-93-3
Methyl tert-butyl ether (MTBE)	1634-04-4

Methylene chloride	75-09-2
Styrene	100-42-5
1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	79-34-5
Tetrachloroethene	127-18-4
Toluene	108-88-3
1,1,1-Trichloroethane	71-55-6
1,1,2-Trichloroethane	79-00-5
Trichloroethene	79-01-6
Trichlorofluoromethane	75-69-4
1,2,3-Trichloropropane	96-18-4
Vinyl chloride	75-01-4
m+p-Xylenes	179601-23-1
o-Xylene	95-47-6
Xylenes, Total	1330-20-7

VOCS BY MICROEXTRACTION-ECD

1,2-Dibromoethane	106-93-4

PETROLEUM HYDROCARBONS-VOLATILE

C6 to C10	
Total Purgeable Hydrocarbons	

PETROLEUM HYDROCARBONS-SEMI-VOLATILE

Diesel Range Organics (C10 to C24)	
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
1-Methylnaphthalene	90-12-0
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
2,4-Dichlorophenol	120-83-2
2,4-Dimethylphenol	105-67-9
2,4-Dinitrophenol	51-28-5
2,4-Dinitrotoluene	121-14-2
2,6-Dinitrotoluene	606-20-2
2-Chloronaphthalene	91-58-7
2-Chlorophenol	95-57-8
2-Methylnaphthalene	91-57-6
2-Nitrophenol	88-75-5

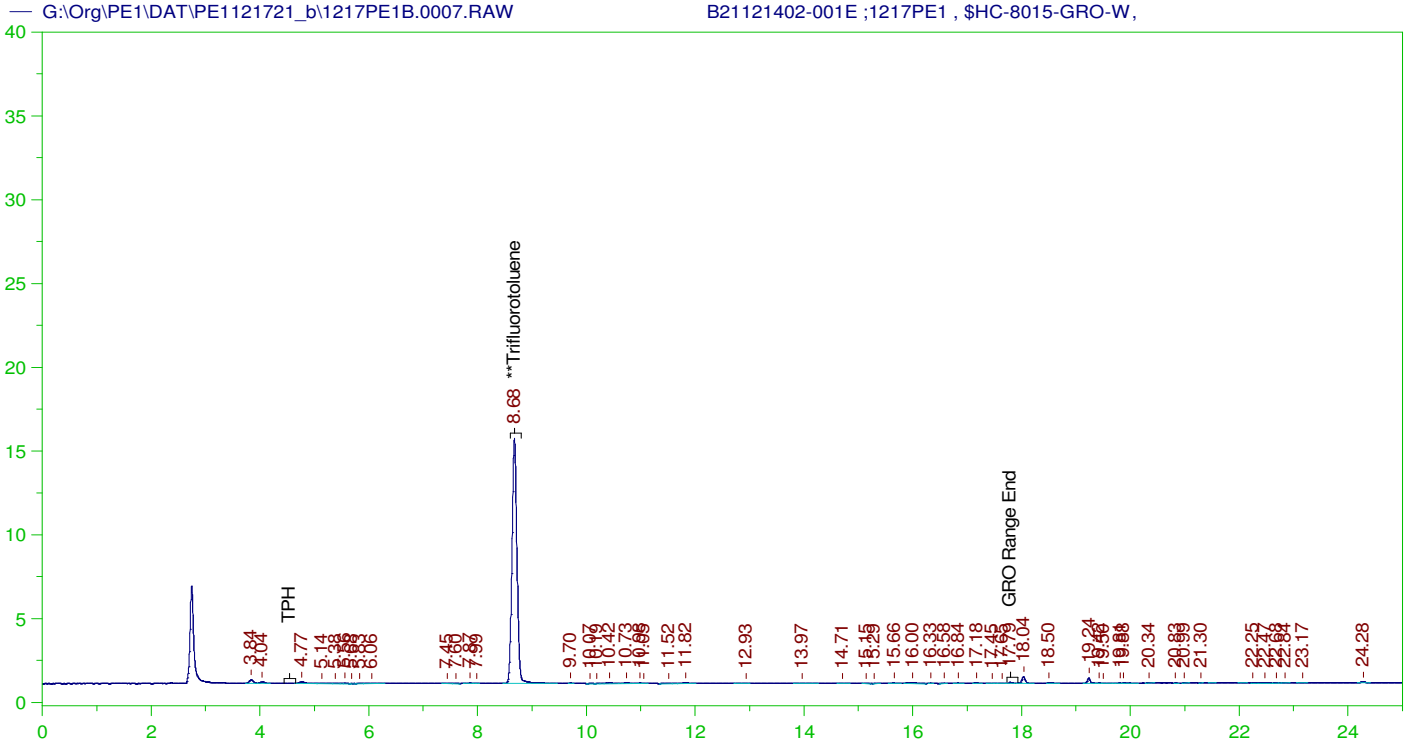
3,3´-Dichlorobenzidine	91-94-1
4,6-Dinitro-2-methylphenol	534-52-1
4-Bromophenyl phenyl ether	101-55-3
4-Chloro-3-methylphenol	59-50-7
4-Chlorophenol	106-48-9
4-Chlorophenyl phenyl ether	7005-72-3
4-Nitrophenol	100-02-7
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Anthracene	120-12-7
Azobenzene	103-33-3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

SEMI-VOLATILE ORGANIC COMPOUNDS (LOW LEVEL) BY SIM

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

ERH2186 (RHMW06)

G:\Org\PE1\DAT\PE1121721_b\1217PE1B.0007.RAW B21121402-001E ;1217PE1 , $HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

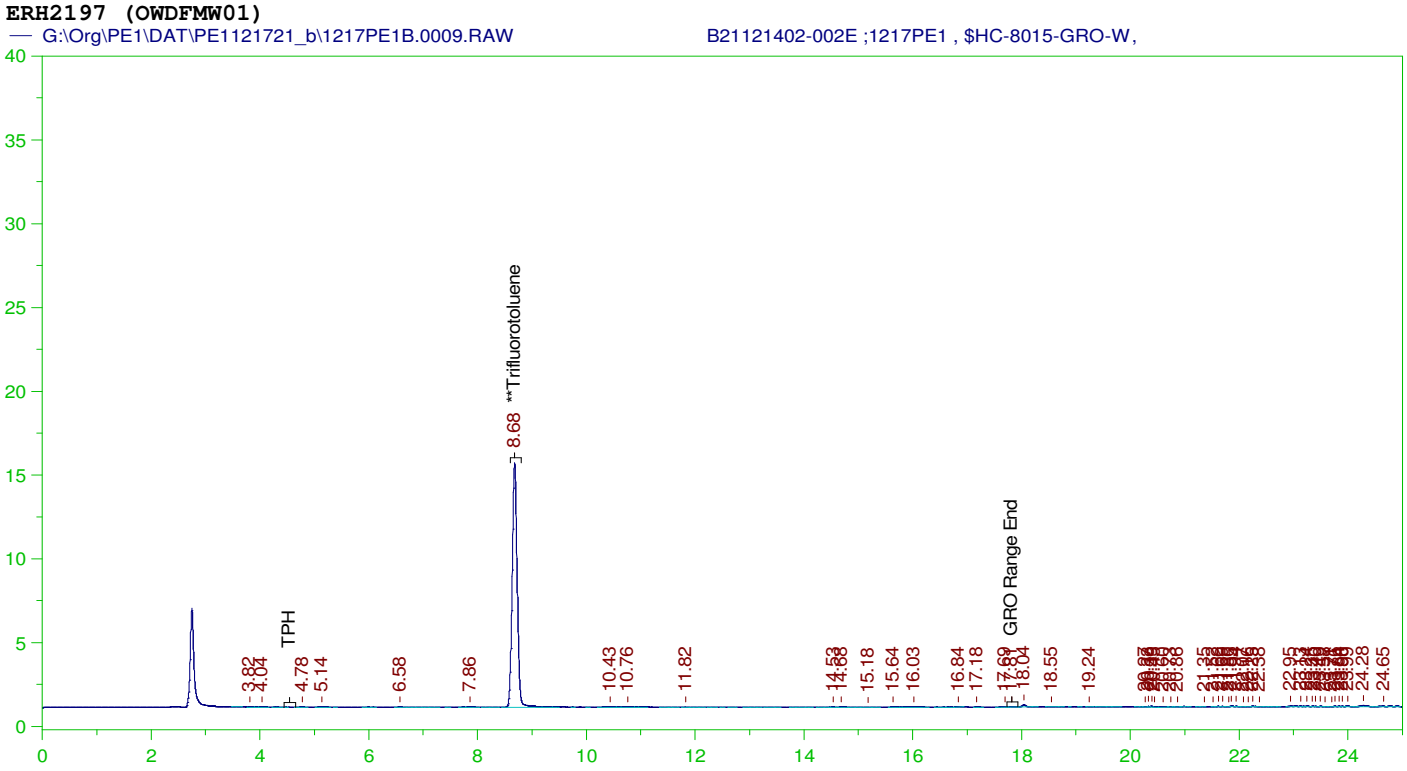
Sample Name: B21121402-001E ;1217PE1 , $HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1121721_b\1217PE1B.0007.RAW
Date & Time Acquired: 12/17/2021 11:05:14 AM
Method File: G:\Org\PE1\Methods\211208G1402-1B%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	8.678	25.	19.927	79.71	-

GRO Area:7593.114 GRO Amount: 1.605364
TPH Area:14735.34 TPH Amount: 3.240703

ERH2197 (OWDFMW01)



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121402-002E ;1217PE1 , $HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1121721_b\1217PE1B.0009.RAW
Date & Time Acquired: 12/17/2021 12:13:52 PM
Method File: G:\Org\PE1\Methods\211208GROB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

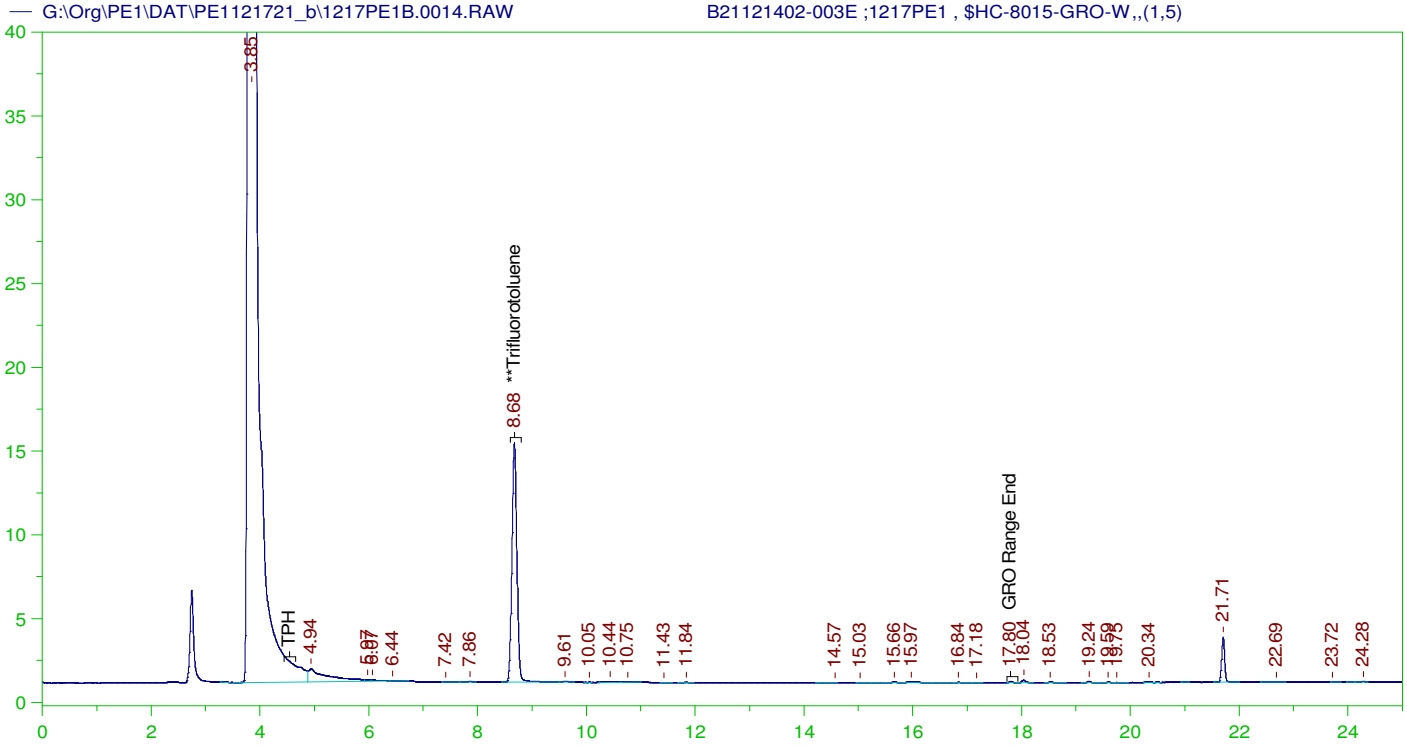
Mean RF for GRO: 945.9678
Mean RF for TPH: 909.3915
Rt range for Gasoline Range Organics: 4.45 to 17.93

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	8.682	25.	19.823	79.29	-

GRO Area:3258.308 GRO Amount: 0.6888836
TPH Area:8339.294 TPH Amount: 1.834038

ERH2203 (RHMW14-03)

G:\Org\PE1\DAT\PE1121721_b\1217PE1B.0014.RAW B21121402-003E ;1217PE1 , $HC-8015-GRO-W,,(1,5)



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121402-003E ;1217PE1 , $HC-8015-GRO-W,,(1,5)
Raw File: G:\Org\PE1\DAT\PE1121721_b\1217PE1B.0014.RAW
Date & Time Acquired: 12/17/2021 3:04:59 PM
Method File: G:\Org\PE1\Methods\211208G1402-3B%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 5 S.A.: 5

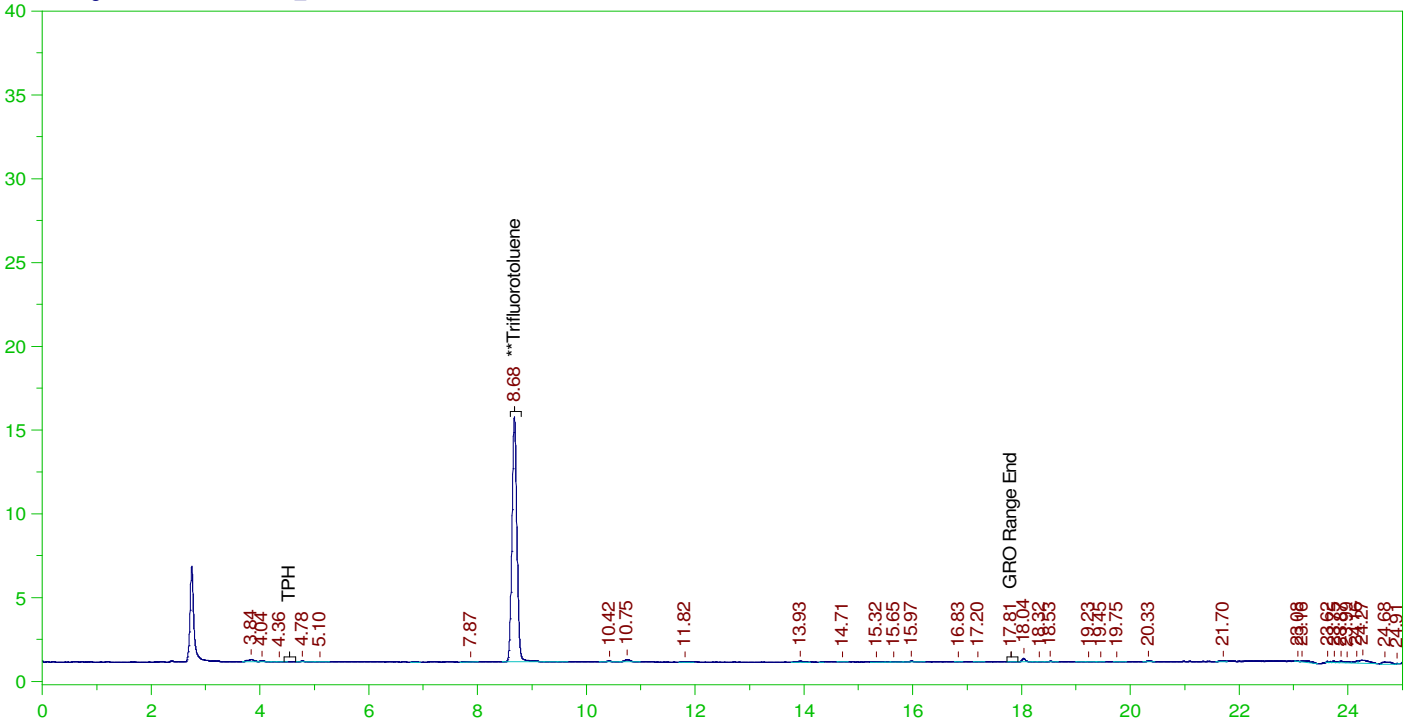
Mean RF for GRO: 945.9678
Mean RF for TPH: 909.3915
Rt range for Gasoline Range Organics: 4.45 to 17.93

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	8.678	125.	97.258	77.81	-

GRO Area:26240.72 GRO Amount: 27.73955
TPH Area:4141309 TPH Amount: 4553.934

ERH2196 Trip Blank-14525 GRO

G:\Org\PE1\DAT\PE1121721_b\1217PE1B.0016.RAW B21121402-006A ;1217PE1 , $HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

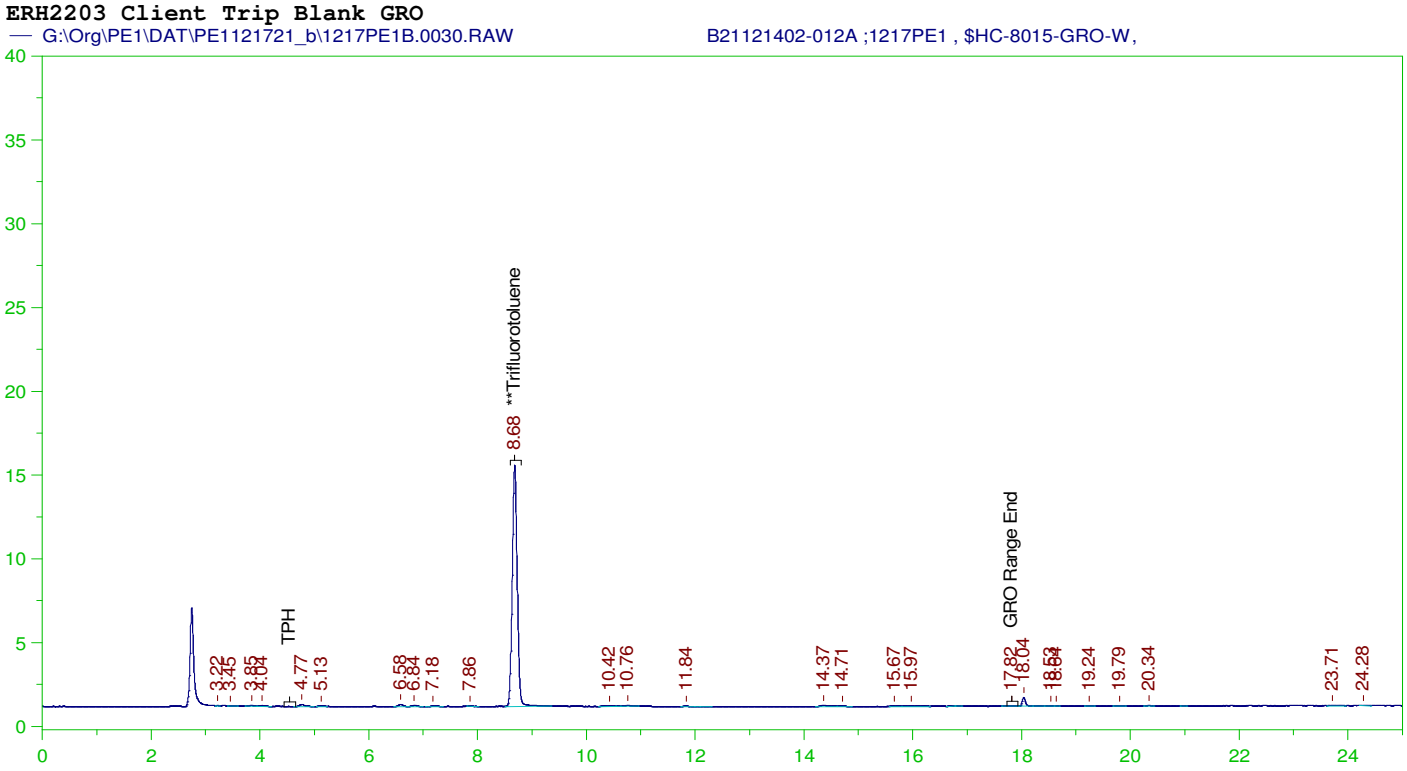
Sample Name: B21121402-006A ;1217PE1 , $HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1121721_b\1217PE1B.0016.RAW
Date & Time Acquired: 12/17/2021 4:13:29 PM
Method File: G:\Org\PE1\Methods\211208G1402-6B%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	8.678	25.	19.915	79.66	-

GRO Area:3966.852 GRO Amount: 0.8386865
TPH Area:14430.41 TPH Amount: 3.173641

ERH2203 Client Trip Blank GRO



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121402-012A ;1217PE1 , $HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1121721_b\1217PE1B.0030.RAW
Date & Time Acquired: 12/18/2021 1:08:40 PM
Method File: G:\Org\PE1\Methods\211208G1402-12B%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

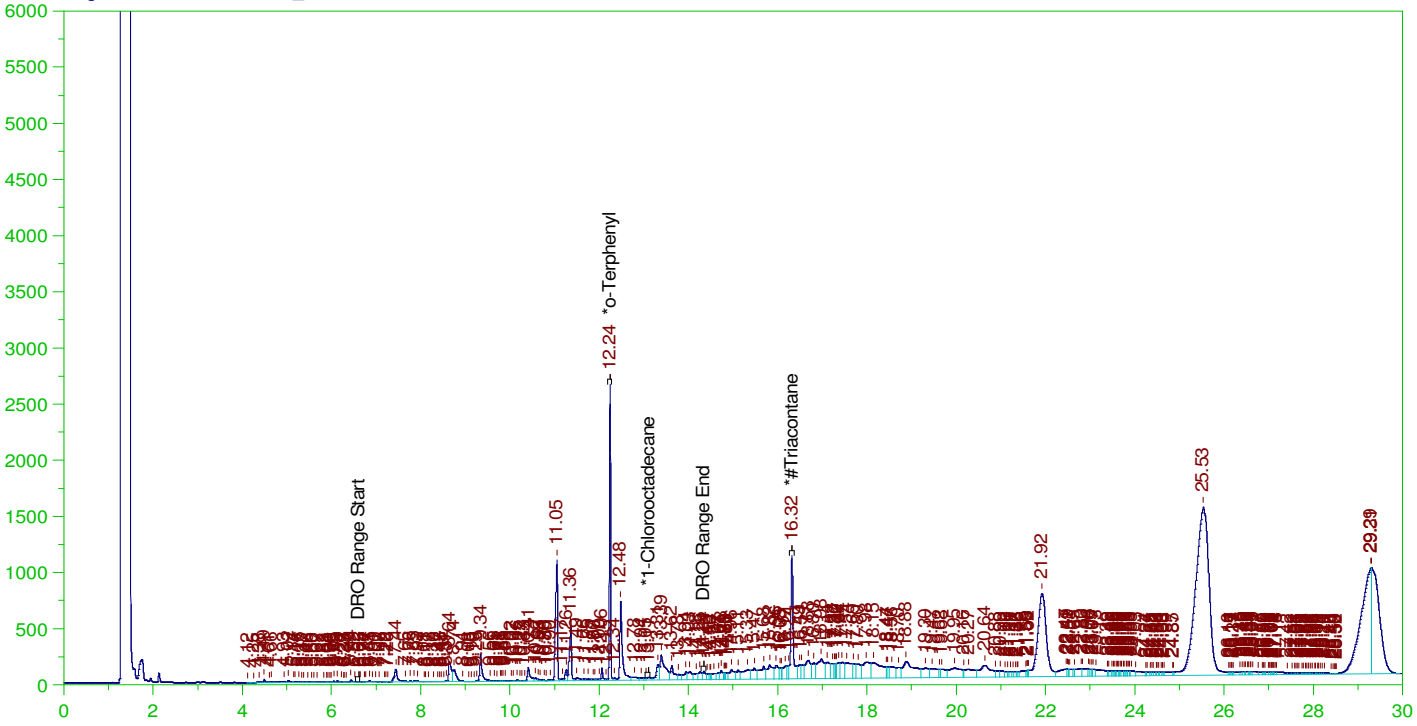
Mean RF for GRO: 945.9678
Mean RF for TPH: 909.3915
Rt range for Gasoline Range Organics: 4.45 to 17.93

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	8.683	25.	19.55	78.2	-

GRO Area:4668.586 GRO Amount: 0.9870497
TPH Area:8316.489 TPH Amount: 1.829023

ERH2186 (RHMW06) Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0008.RAW B21121402-001B ;1220HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121402-001B ;1220HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0008.RAW
Date & Time Acquired: 12/20/2021 1:49:32 PM
Method File: G:\Org\HP5\Methods\DR_8015-122007-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

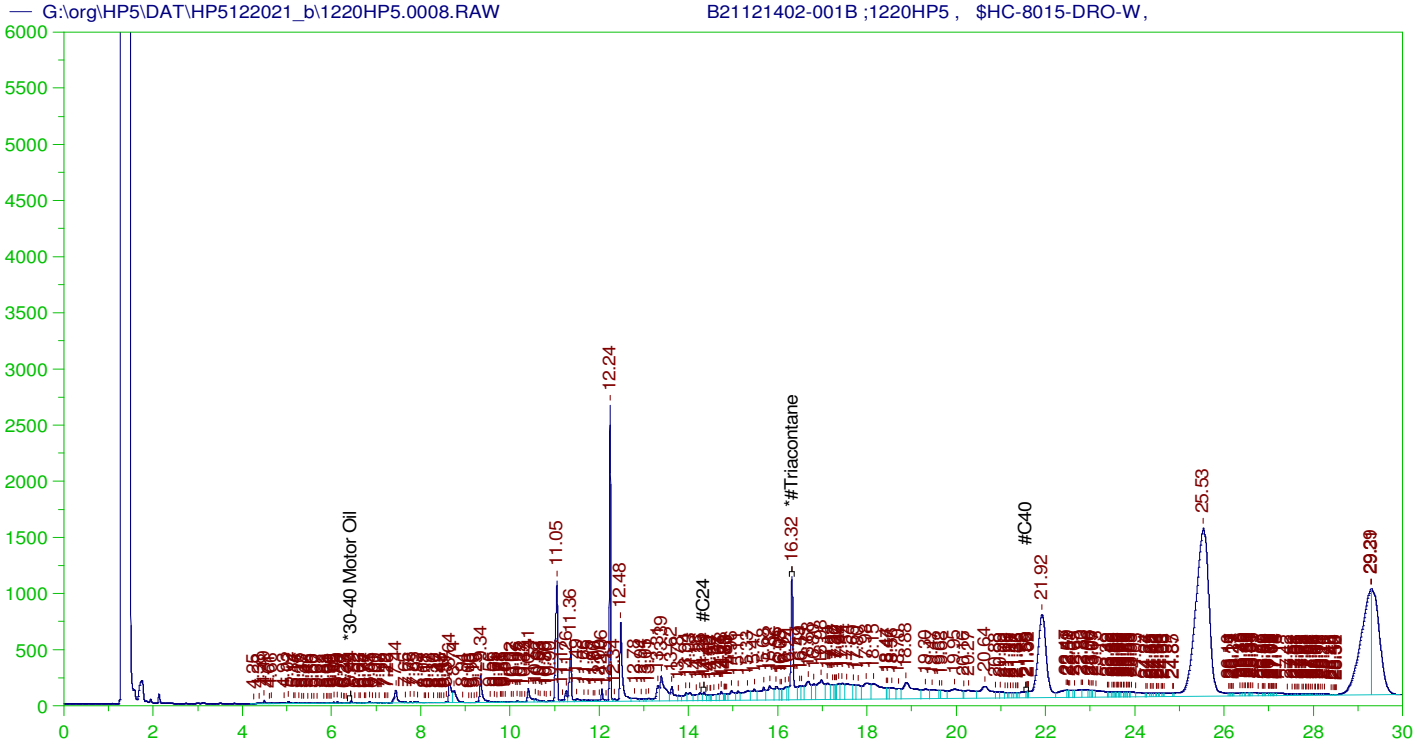
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.241	.202	.149	73.57	-
*1-Chlorooctadecane	13.108	.202	.005	2.38	-
*#Triacontane	16.316	.202	.134	66.13	-

DRO Area:1.941428E+07 DRO Amount: 0.625467
TEH Area:1.380049E+08 TEH Amount: 4.446082

ERH2186 (RHMW06) Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0008.RAW B21121402-001B ;1220HP5 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121402-001B ;1220HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0008.RAW
Date & Time Acquired: 12/20/2021 1:49:32 PM
Method File: G:\Org\HP5\Methods\DR_OROS-122007-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

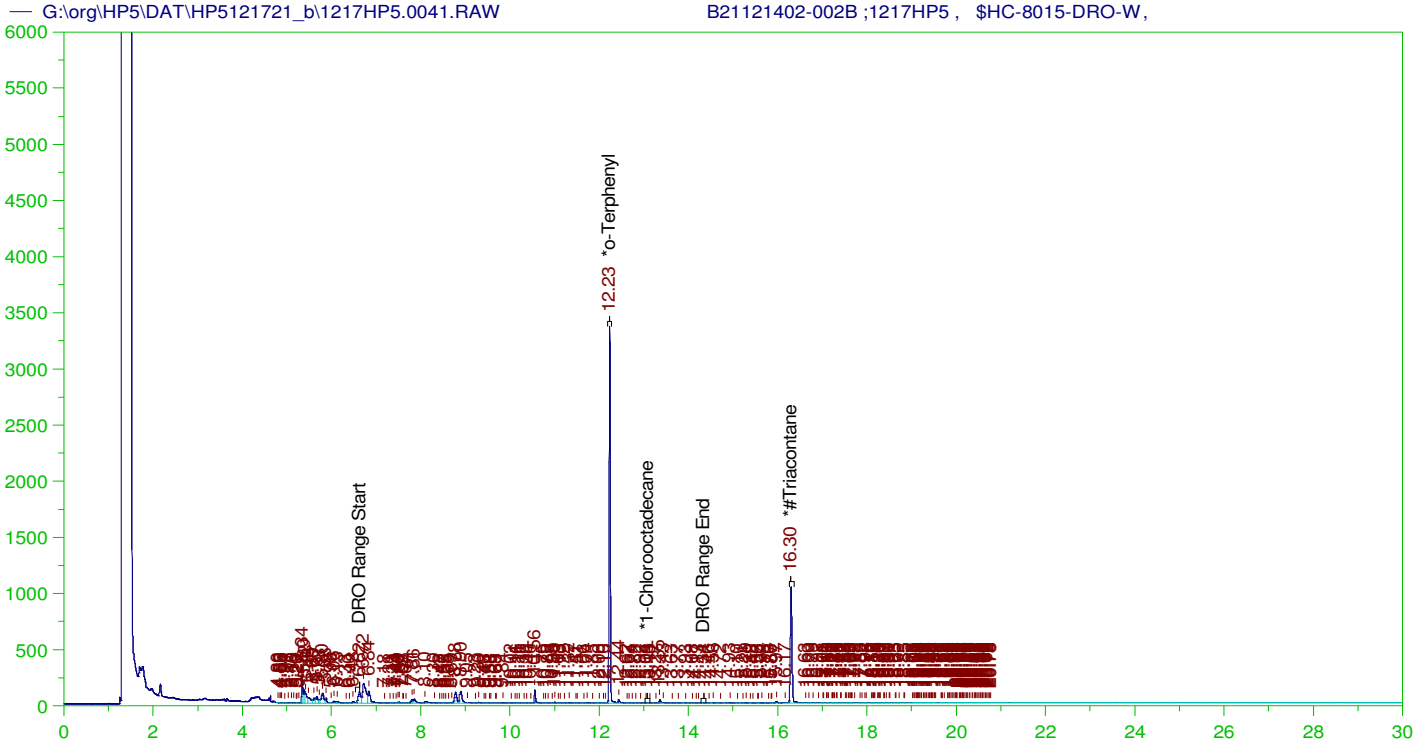
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.316	.505	.134	26.45	-

RRO Area:3.935323E+07 RRO AMOUNT: 1.39269

ERH2197 (OWDFMW01) Batch ID: 162268

G:\org\HP5\DAT\HP5121721_b\1217HP5.0041.RAW B21121402-002B ;1217HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121402-002B ;1217HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0041.RAW
Date & Time Acquired: 12/18/2021 1:10:19 PM
Method File: G:\Org\HP5\Methods\DR_8015-121741-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 960 Dilution: 1 S.A.: 1

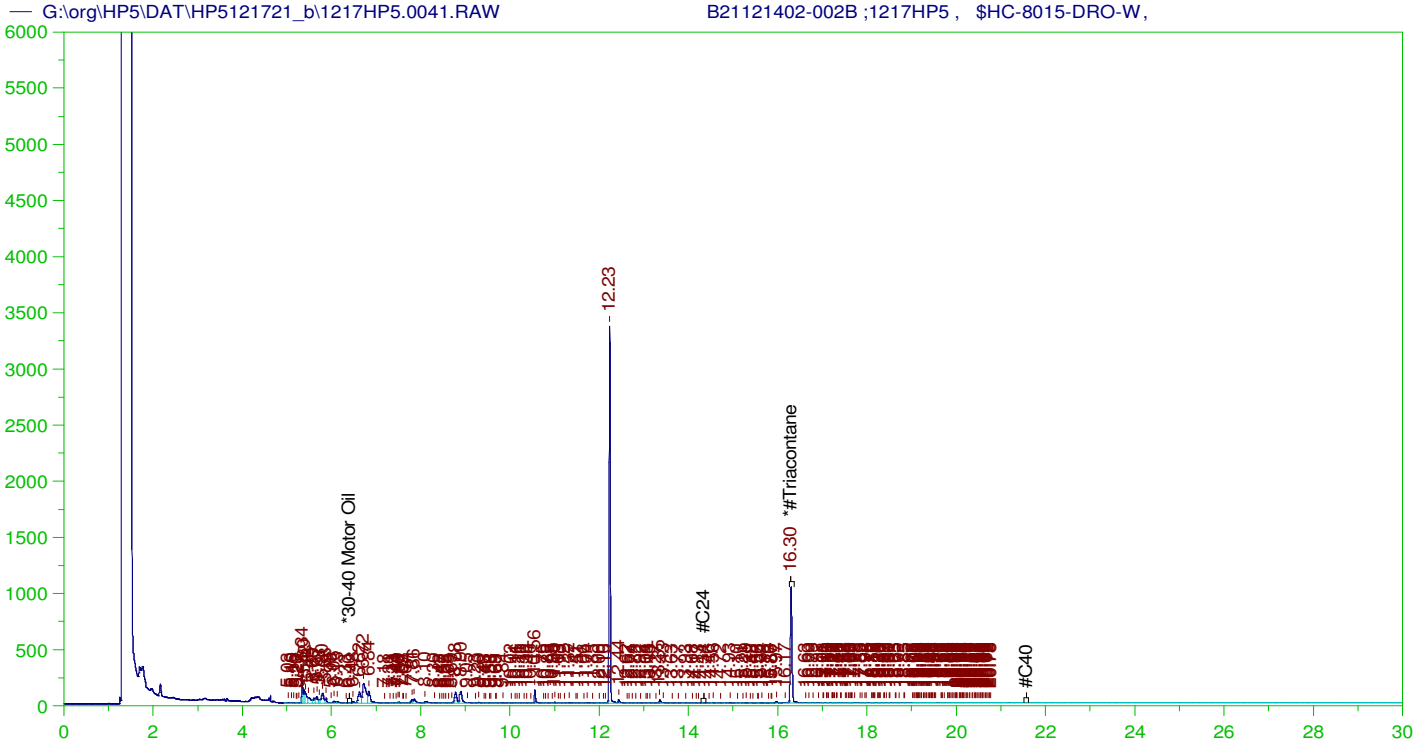
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.232	.208	.188	90.22	-
*1-Chlorooctadecane	13.082	.208	. .01		-
*#Triacontane	16.298	.208	.099	47.43	-

DRO Area:3897191 DRO Amount: 0.1294788
TEH Area:7150422 TEH Amount: 0.2375629

ERH2197 (OWDFMW01) Batch ID: 162268

G:\org\HP5\DAT\HP5121721_b\1217HP5.0041.RAW B21121402-002B ;1217HP5 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121402-002B ;1217HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0041.RAW
Date & Time Acquired: 12/18/2021 1:10:19 PM
Method File: G:\Org\HP5\Methods\DR_OROS-121741-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 960 Dilution: 1 S.A.: 1

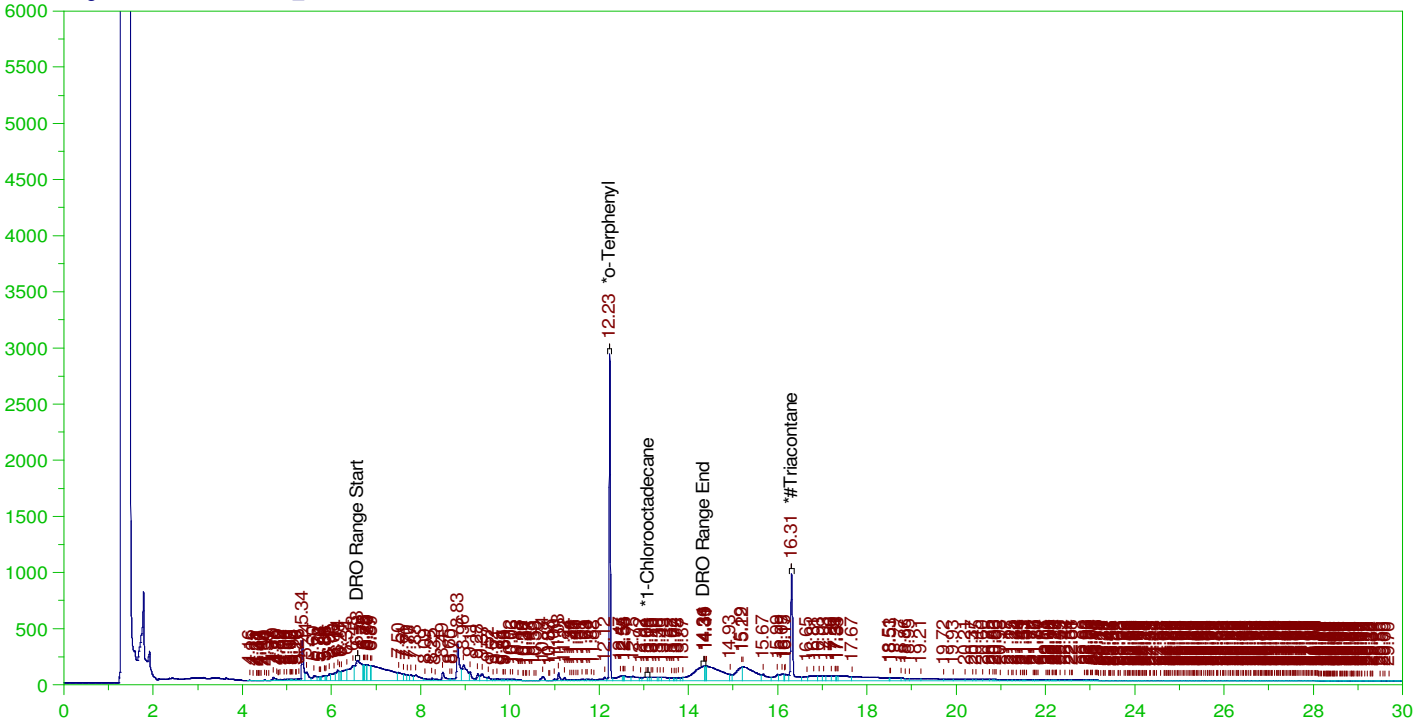
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.298	.521	.099	18.97	-

RRO Area:884390.1 RRO AMOUNT: 3.227617E-02

ERH2203 (RHMW14-03) Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0007.RAW B21121402-003B ;1220HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121402-003B ;1220HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0007.RAW
Date & Time Acquired: 12/20/2021 1:06:52 PM
Method File: G:\Org\HP5\Methods\DR_8015-122007-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

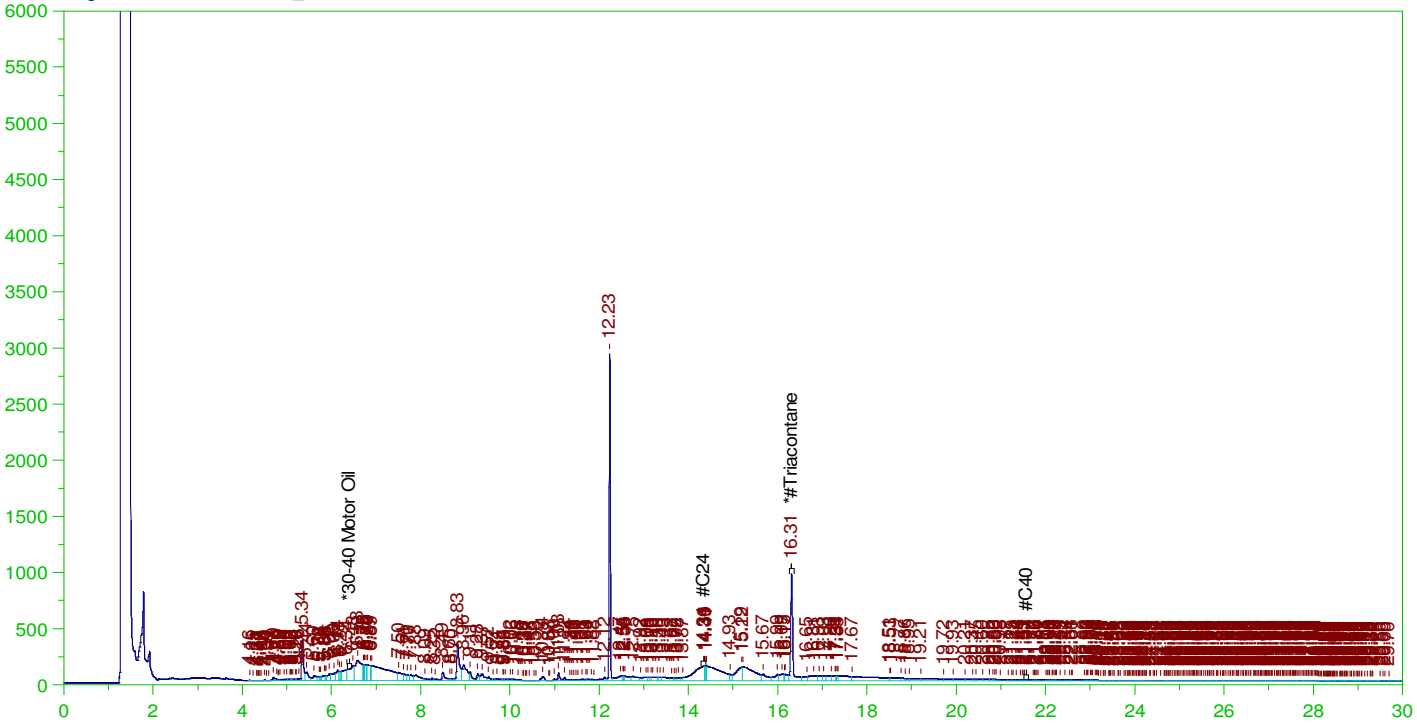
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.233	.196	.153	78.	-
*1-Chlorooctadecane	13.083	.196	.002	1.13	-
*#Triacontane	16.309	.196	.1	50.8	-

DRO Area:2.032198E+07 DRO Amount: 0.6354541
TEH Area:4.385293E+07 TEH Amount: 1.37125

ERH2203 (RHMW14-03) Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0007.RAW B21121402-003B ;1220HP5 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121402-003B ;1220HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0007.RAW
Date & Time Acquired: 12/20/2021 1:06:52 PM
Method File: G:\Org\HP5\Methods\DR_OROS-122007-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

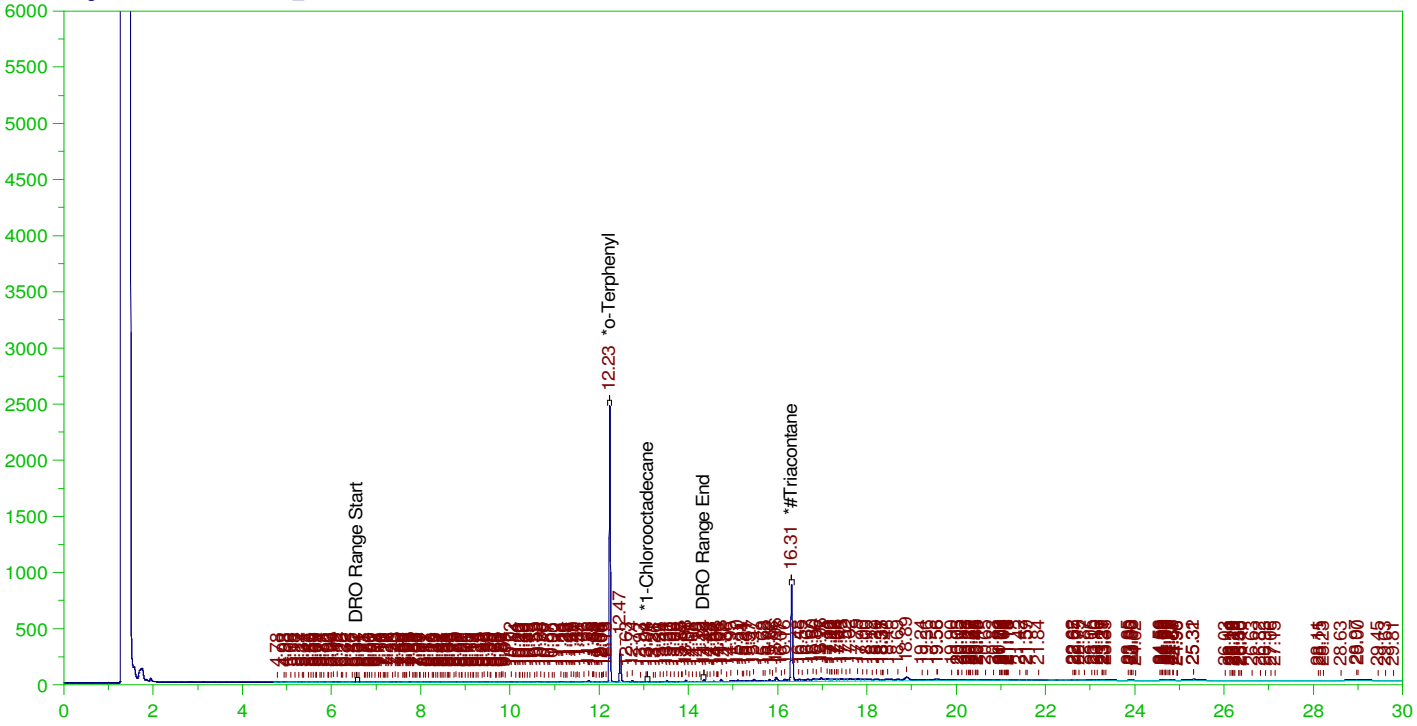
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.309	.49	.099	20.28	-

RRO Area:1.808739E+07 RRO AMOUNT: 0.6212767

ERH2186 (RHMW06) Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0024.RAW B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0024.RAW
Date & Time Acquired: 12/21/2021 1:18:02 AM
Method File: G:\Org\HP5\Methods\DR_8015-122024-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

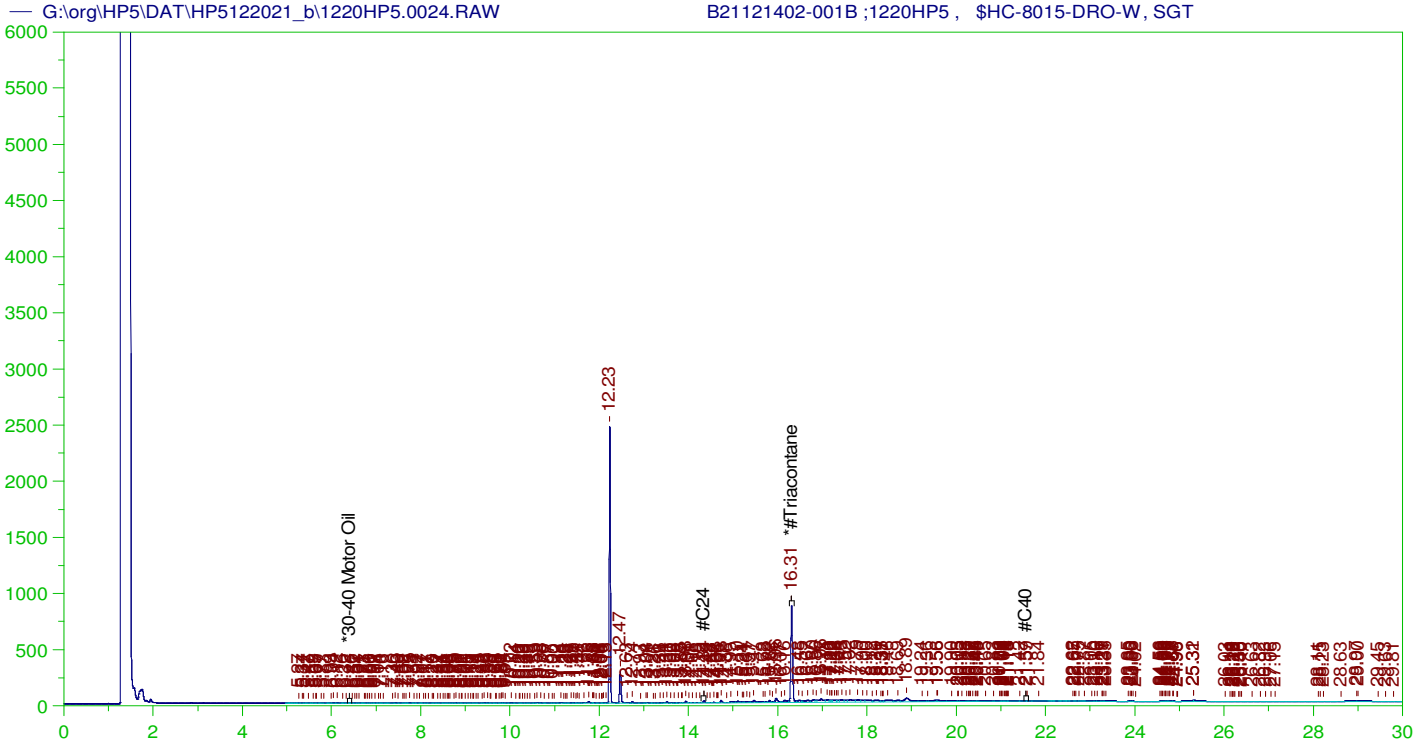
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.235	.202	.132	65.16	-
*1-Chlorooctadecane	13.08	.202	.	.15	-
*#Triacontane	16.311	.202	.078	38.75	-

DRO Area:1324791 DRO Amount: 4.268059E-02
TEH Area:6190134 TEH Amount: 0.1994266

ERH2186 (RHMW06) Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0024.RAW B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0024.RAW
Date & Time Acquired: 12/21/2021 1:18:02 AM
Method File: G:\Org\HP5\Methods\DR_OROS-122024-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

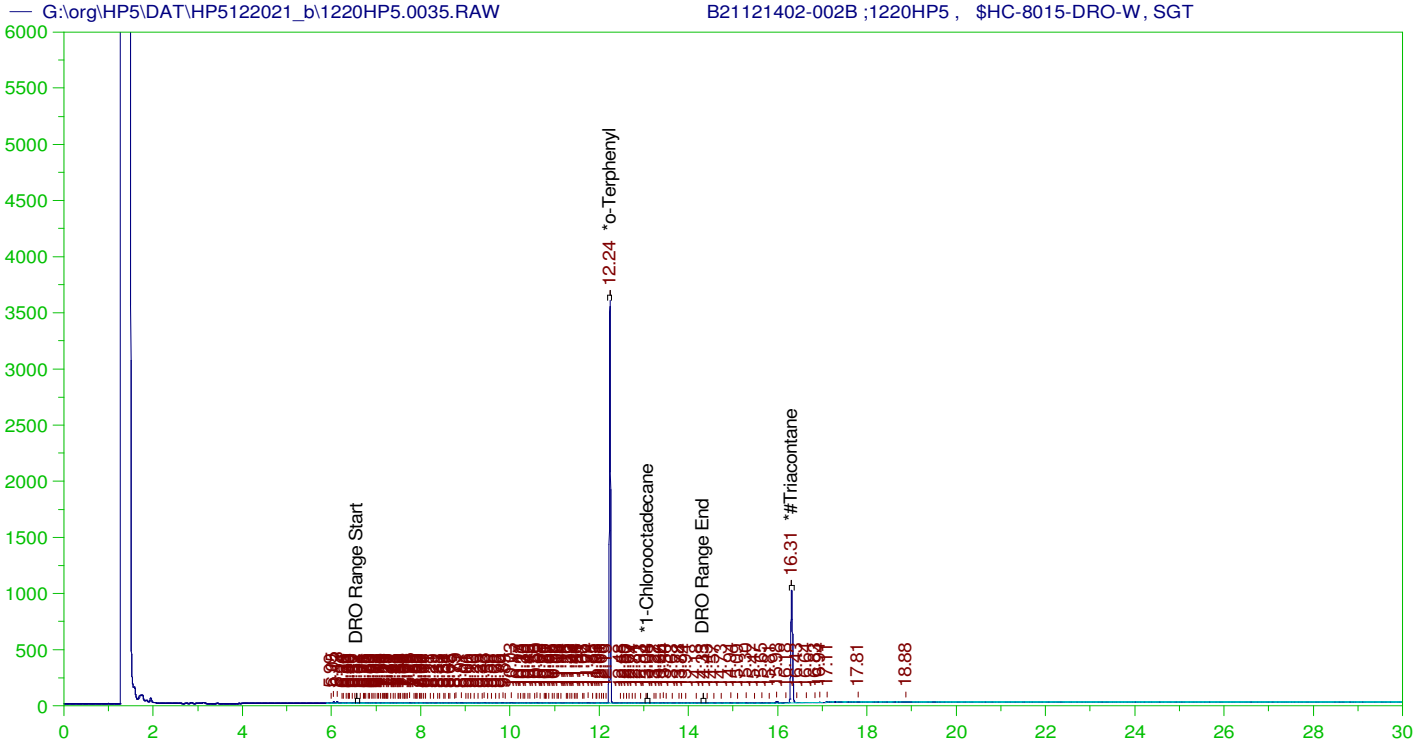
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.311	.505	.078	15.5	-

RRO Area:4434712 RRO AMOUNT: 0.1569421

ERH2197 (OWDFMW01) Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0035.RAW B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0035.RAW
Date & Time Acquired: 12/21/2021 9:10:53 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24Ta-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 960 Dilution: 1 S.A.: 1

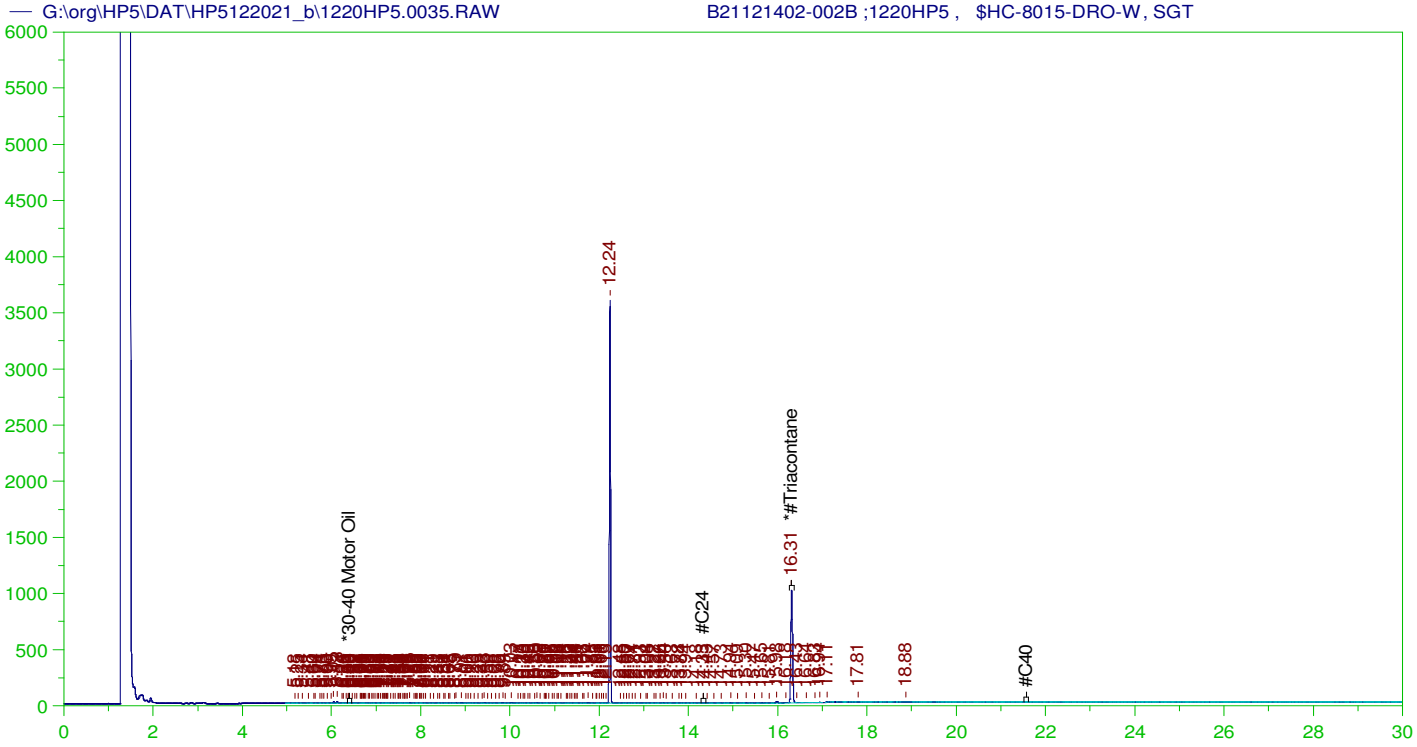
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.238	.208	.196	93.92	-
*1-Chlorooctadecane	13.078	.208	. .04		-
*#Triacontane	16.31	.208	.093	44.44	-

DRO Area:795310.3 DRO Amount: 2.642309E-02
TEH Area:1041488 TEH Amount: 3.460202E-02

ERH2197 (OWDFMW01) Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0035.RAW B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0035.RAW
Date & Time Acquired: 12/21/2021 9:10:53 AM
Method File: G:\Org\HP5\Methods\DR_OROS-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 960 Dilution: 1 S.A.: 1

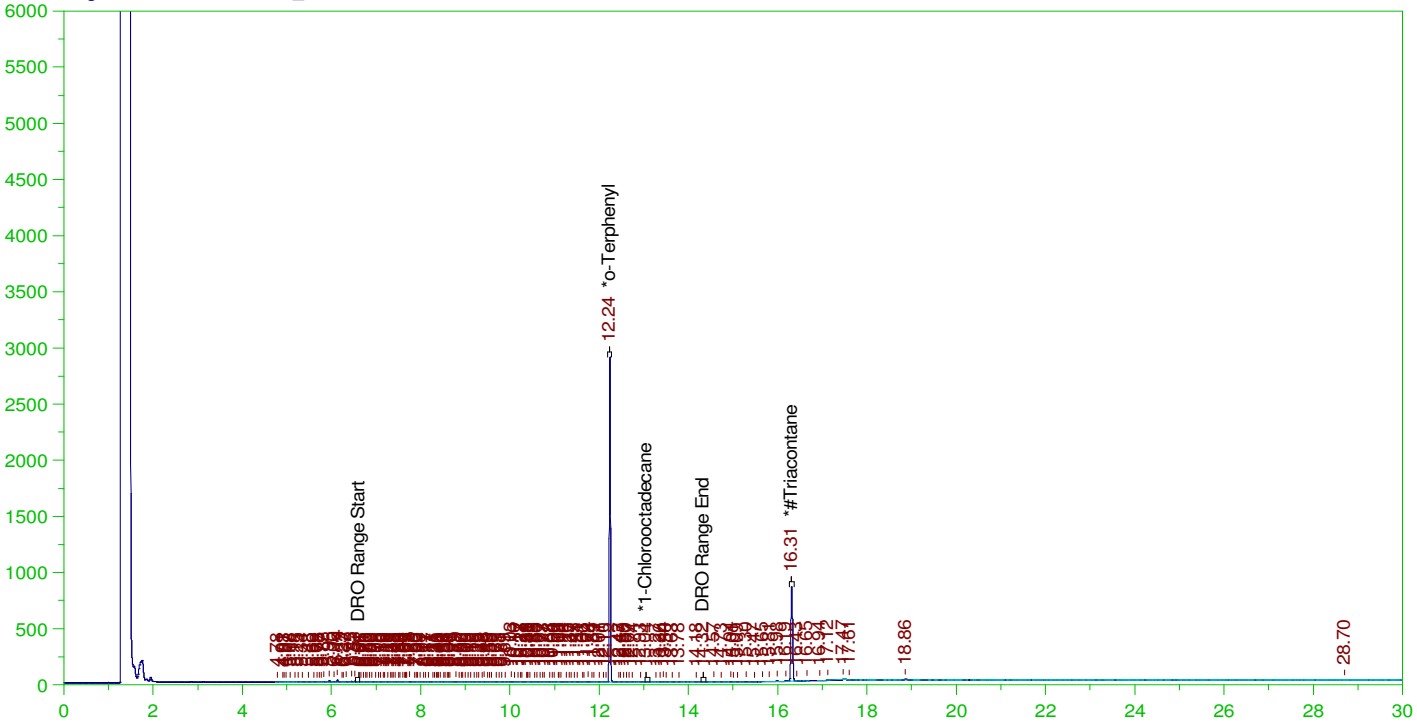
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.31	.521	.093	17.77	-

RRO Area:143518.3 RRO AMOUNT: 5.237759E-03

ERH2203 (RHMW14-03) Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0022.RAW B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0022.RAW
Date & Time Acquired: 12/20/2021 11:51:58 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

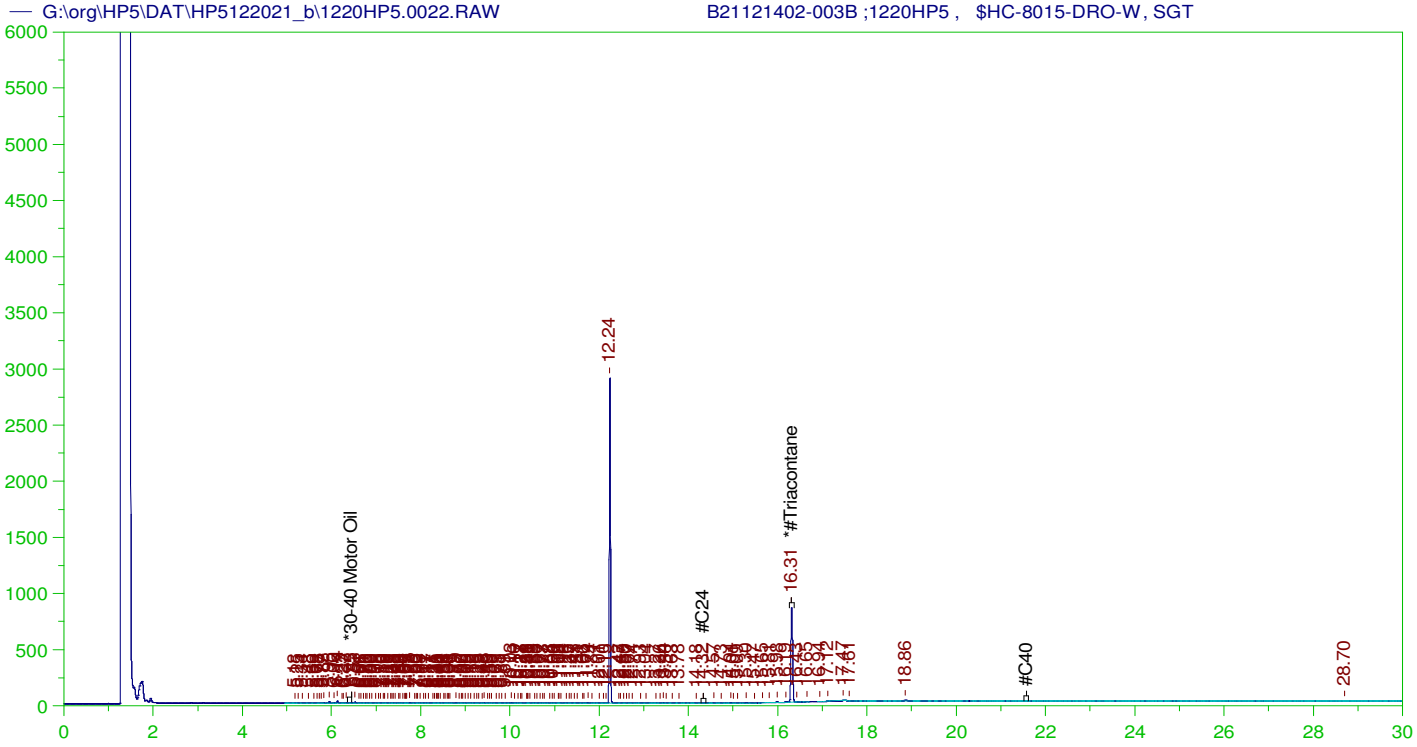
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.236	.196	.149	76.24	-
*1-Chlorooctadecane	13.043	.196	.	.07	-
*#Triacontane	16.311	.196	.071	36.46	-

DRO Area:581825.4 DRO Amount: 1.819327E-02
TEH Area:934758.3 TEH Amount: 2.922923E-02

ERH2203 (RHMW14-03) Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0022.RAW B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0022.RAW
Date & Time Acquired: 12/20/2021 11:51:58 PM
Method File: G:\Org\HP5\Methods\DR_OROS-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.311	.49	.071	14.58	-

RRO Area:115441.9 RRO AMOUNT: 3.96527E-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
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1001 Bishop Street
Suite 1600
Honolulu, HI 96813, United States of America
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From: Tabitha Edwards <tedwards@energylab.com>
Sent: Monday, December 13, 2021 7:05 AM
To: Ramos, Alethea <alethea.ramos@aecom.com>
Cc: Pascua, Margie <Margie.Pascua@aecom.com>; billingsPM@energylab.com
Subject: [EXTERNAL] FW: CV18F0126: Expedited NOI Groundwater Samples, Saturday 12/12 Submission
Importance: High

Alethea,

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

Thank you,

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

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

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

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

Hi Shari and Billings PM,

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

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

Thank you,

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