



ANALYTICAL SUMMARY REPORT

March 08, 2022

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

Work Order: B22021627

Quote ID: 5912

Project Name: CV18F0126, 60571032.02.46.01

Energy Laboratories Inc Billings MT received the following 15 samples from AECOM - Honolulu on 2/24/2022 for analysis.

Lab ID	Client Sample ID	Collect Date	Received Date	Matrix	Test
B22021627-001	ERH2565 (RHMW2254-01 Bailer)	02/22/22 13:20	02/24/2022	Ground Water	Metals Digestion by SW3010A DRO-Liquid-Liquid Extraction SW3520C Low Level PAH by 8270C SIM SW8270CSIM Separatory Funnel SW3510C Liquid-Liquid Ext. Carbon, Total Organic SW9060A Metals by ICP-MS, Dissolved SW6020 Metals by ICP-MS, Total SW6020 8260-Volatile Organic Compounds-Short List SW8260B EDB in Water by ECD SW8011 Gasoline Range Organics SW8015C Diesel Range Organics SW8015C Headspace Gas Analysis SW8015M Semi-Volatile Organic Compounds, Extended List SW8270C SW8011 Microextraction
B22021627-002	ERH2564 (Trip Blank)-14833	02/22/22 13:20	02/24/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22021627-003	ERH2564 (Trip Blank)-14754	02/22/22 13:20	02/24/2022	Trip Blank	Gasoline Range Organics SW8015C
B22021627-004	ERH2564 (Trip Blank)-14733	02/22/22 13:20	02/24/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22021627-005	ERH2564 (Trip Blank)-14808	02/22/22 13:20	02/24/2022	Trip Blank	Headspace Gas Analysis SW8015M



ANALYTICAL SUMMARY REPORT

B22021627-006	ERH2569 (Sump Adit 3)	02/22/22 15:10	02/24/2022	Ground Water	Metals Digestion by SW3010A DRO-Liquid-Liquid Extraction SW3520C Low Level PAH by 8270C SIM SW8270CSIM Separatory Funnel SW3510C Liquid-Liquid Ext. Carbon, Total Organic SW9060A Metals by ICP-MS, Dissolved SW6020 Metals by ICP-MS, Total SW6020 8260-Volatile Organic Compounds-Short List SW8260B EDB in Water by ECD SW8011 Gasoline Range Organics SW8015C Diesel Range Organics SW8015C Headspace Gas Analysis SW8015M Semi-Volatile Organic Compounds, Extended List SW8270C SW8011 Microextraction
B22021627-007	ERH 2568 (Trip Blank)- 14525	02/22/22 15:10	02/24/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22021627-008	ERH 2568 (Trip Blank)- 14754	02/22/22 15:10	02/24/2022	Trip Blank	Gasoline Range Organics SW8015C
B22021627-009	ERH 2568 (Trip Blank)- 14733	02/22/22 15:10	02/24/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22021627-010	ERH 2568 (Trip Blank)- 14732	02/22/22 15:10	02/24/2022	Trip Blank	Headspace Gas Analysis SW8015M
B22021627-011	ERH2567 (RHMW2254- 01 Low-flow)	02/22/22 13:45	02/24/2022	Ground Water	Metals Digestion by SW3010A DRO-Liquid-Liquid Extraction SW3520C Low Level PAH by 8270C SIM SW8270CSIM Separatory Funnel SW3510C Liquid-Liquid Ext. Carbon, Total Organic SW9060A Metals by ICP-MS, Dissolved SW6020 Metals by ICP-MS, Total SW6020 8260-Volatile Organic Compounds-Short List SW8260B EDB in Water by ECD SW8011 Gasoline Range Organics SW8015C Diesel Range Organics SW8015C Headspace Gas Analysis SW8015M Semi-Volatile Organic Compounds, Extended List SW8270C SW8011 Microextraction
B22021627-012	ERH2566 (Trip Blank)- 14833	02/22/22 13:45	02/24/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B



ANALYTICAL SUMMARY REPORT

B22021627-013	ERH2566 (Trip Blank)-14754	02/22/22 13:45	02/24/2022	Trip Blank	Gasoline Range Organics SW8015C
B22021627-014	ERH2566 (Trip Blank)-14833	02/22/22 13:45	02/24/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22021627-015	ERH2566 (Trip Blank)-14732	02/22/22 13:45	02/24/2022	Trip Blank	Headspace Gas Analysis SW8015M

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

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

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

Report Approved By:



CLIENT: AECOM - Honolulu
Project: CV18F0126, 60571032.02.46.01
Work Order: B22021627

Report Date: 3/8/2022

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 SW0060A associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, PO Box 247, Casper, WY, EPA Number WY00002.

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

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

Analysis Specific Comments:

An Analytical QC Exceptions Report has been attached, summarizing all qualified QC results. Where qualified, an analyte exceeded quality control limits, but was not detected in the associated sample(s).

EPA Method 8260B:

Sample ERH2569 (Sump Adit 3) (B22021627-006) had a slightly high recovery for surrogate 1,2-Dichloroethane-d4. This recovery was above the QSM 5.3 recovery limits but within EPA 8260B method defined limits. Re-analysis of a second vial produced similar results.

EPA Method 8270C:

B22021627-011: Insufficient sample was available to perform a re-extraction for low surrogate recovery on 2-Fluorobiphenyl.



Trust our People. Trust our Data.

Chain of Custody & Analytical Request Record

COC # 202202-25NOI

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DoD Samples Page 1 of 1

Account Information (Billing information)

Company/Name AECOM		
Contact Alethea Ramos / Margie Pascua		
Phone 808-529-7283 / 808-356-5373		
Mailing Address 1001 Bishop St., Suite 1600		
City, State, Zip Honolulu, Hawaii 96813		
Email alethea.amos / margie.pascua@aecom.com		
Receive Invoice <input type="checkbox"/> Hard Copy <input checked="" type="checkbox"/> Email	Receive Report <input type="checkbox"/> Hard Copy <input checked="" type="checkbox"/> 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 <input type="checkbox"/> Hard Copy <input checked="" type="checkbox"/> Email	
Special Report/Formats:	
<input checked="" type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC <input checked="" type="checkbox"/> EDD/EDT (contact laboratory) <input type="checkbox"/> Other	

Comments

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

Project Information

Project Name, PWSID, Permit, etc. CV18F0126, 60571032.02.46.01	
Sampler Name MY, NL, KL	Sampler Phone 808-349-4738
Sample Origin State Hawaii	EPA/State Compliance <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The following tests will be subcontracted to other certified laboratories as shown. Signing this COC is authorization to subcontract the analyses as indicated.	
Analysis	Subcontract Lab
TOC	Energy Laboratories Inc., Casper

Matrix Codes

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

Analysis Requested

Project Name, PWSID, Permit, etc. CV18F0126, 60571032.02 46 01			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		
Sampler Name MY, NL, KL	Sampler Phone 808-349-4738																
Sample Origin State Hawaii	EPA/State Compliance <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																
The following tests will be subcontracted to other certified laboratories as shown. Signing this COC is authorization to subcontract the analyses as indicated. Analysis Subcontract Lab																	
TOC Energy Laboratories Inc., Casper																	
Sample Identification (Name, Location, Interval, etc.)		Collection		Number of Containers	Matrix (See Codes Above)	8260 VOC's (Full Suite) + DCA* [40ml VOA w/HCL]	8015 TPH-g [40ml VOA w/ HCL]	RSK175 Methane [40ml VOA w/H2SO4]	8011 EDB [40ml VOA w/HCL]	SVOCs (full suite+Nap, 1-2- Methylnap) by 8270DSIM*	EPA 3630/8015 TPH-d/o +SGC [1-L AG w/H2SO4]	EPA 9060 TOC [250ml AG w/ H3PO4]	EPA 6020 Total Lead [250ml HDPE w/HNO3]	EPA 6020 Diss. Lead [250ml HDPE w/HNO3] (field Filtered)	See Attached	RUSH TAT	
1	ERH2565 (RHMW2254-01 Bailer)	02/22/2022	0920	19	GW	✓	✓	✓	✓	✓	✓	✓	✓	✓		✗	B220211627-001
2	ERH 2564 (Trip Blank)	02/22/2022	0850	8	WQ	✓	✓	✓	✓							✗	-002, -003, -004, -005
3																	
4	TB(8260) -14833	2															-002
5	TB(8260) -14754	2															-003
6	TB(8015) -14733	2															-004
7	TB(Methane) -14808	2	4 W	2/22/22													-005
8																	
9																	

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

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) Alex Edmonds	Date/Time 2/22/22 1515	Signature [Signature]	Received by (print)	Date/Time 1/40	Signature [Signature]
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print) Taylor Binnis	Date/Time 2/24/22 1421	Signature [Signature]
LABORATORY USE ONLY						
Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp 0.1 °C	Temp Blank Y N	On Ice Y N
				Payment Type CC Cash Check	Amount \$	Receipt Number (cash/check only)

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 noted on your analytical report.



Trust our People. Trust our Data.

Chain of Custody & Analytical Request Record

COC # 202202-27NOI

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DoD Samples Page 1 of 1

Account Information (Billing information)

Company/Name AECOM		
Contact Alethea Ramos / Margie Pascua		
Phone 808-529-7283 / 808-356-5373		
Mailing Address 1001 Bishop St., Suite 1600		
City, State, Zip Honolulu, Hawaii 96813		
Email alethea.amos / margie.pascua@aecom.com		
Receive Invoice <input type="checkbox"/> Hard Copy <input checked="" type="checkbox"/> Email	Receive Report <input type="checkbox"/> Hard Copy <input checked="" type="checkbox"/> 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 <input type="checkbox"/> Hard Copy <input checked="" type="checkbox"/> Email		
Special Report/Formats:		
<input checked="" type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC <input checked="" type="checkbox"/> EDD/EDT (contact laboratory) <input type="checkbox"/> Other		

Comments

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

Project Information

Project Name, PWSID, Permit, etc. CV18F0126, 60571032.02.46.01	
Sampler Name Nicolette Lauer	Sampler Phone 9168356425
Sample Origin State Hawaii	EPA/State Compliance <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The following tests will be subcontracted to other certified laboratories as shown. Signing this COC is authorization to subcontract the analyses as indicated.	
Analysis	Subcontract Lab
TOC	Energy Laboratories Inc., Casper

Matrix Codes

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

Analysis Requested

Sample Identification (Name, Location, Interval, etc.)	Collection		Number of Containers	Matrix (See Codes Above)	8260 VOC's (Full Suite) + DCA* [40ml VOA w/HCL]	8015 TPH-g [40ml VOA w/HCL]	RSK175 Methane [40ml VOA w/H2SO4]	9011 EDB [40ml VOA w/HCL]	SVOCs (full suite+Nap, 1-2-Methylnap) by 82700 SIM*	EPA 3630/8015 TPH-d/o +SGC [1-L AG w/H2SO4]	EPA 9060 TOC [250ml AG w/H3PO4]	EPA 6020 Total Lead [250ml HDPE w/HNO3]	EPA 6020 Diss. Lead [250ml HDPE w/HNO3] (field Filtered)	See Attached	RUSH TAT	ELI LAB ID Laboratory Use Only
	Date	Time														
1 ERH2569 (Sump Adit 3)	02/22/2022	11:10	19	GW	✓	✓	✓	✓	✓	✓	✓	✓	✓		X	B22021627-006
2 ERH 2568 (Trip Blank)	02/22/2022	10:45	8	WQ	✓	✓	✓	✓							X	-006 -007 -008 -009
3																
4 TB (8200) -14525	2															-007 -006
5 TB (670) -14754	2															-008 -007
6 TB (8011) -14733	2															-009 -008
7 TB (Methane) -14732	2															-010 -009
8																
9																

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

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) Diana Escobar	Date/Time 2/22/22 15:15	Signature [Signature]	Received by (print)	Date/Time	Signature
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print) Richard SLJ	Date/Time 2/24/22 11:40	Signature [Signature]
LABORATORY USE ONLY						
Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp 0.1 °C	Temp Blank Y N	On Ice Y N
				Payment Type CC Cash Check	Amount \$	Receipt Number (cash/check only)

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 noted on your analytical report.

QC Form

Sample ID/Well Number: SUMPACT3/ERH2568/ERH2569

1. QC SIGN/DATE: 2/21/22 Diana Escobar

2. QC SIGN/DATE: 2/21/22 [Signature]

3. QC SIGN/DATE: 2/22/22 Diana Escobar

Analysis	Container	Preservative	Bottle Count	ERH # from Label	1. QC Prep. kit	2. QC Field Samples	3. QC Packing
VOCs (Full Suite) + DCA by 8260 +TPG-g by 8015	40mL VOAs	HCl	6	ERH 2569	✓	6	✓
Methane by RSK175	40mL VOAs	H2SO4	2	ERH 2569	✓	2	✓
EDB by 8011	40mL VOAs	HCl	3	ERH 2569	✓	3	✓
SVOcs (full suite + Nap, 1-2 Methylnap) by 8270DSIM	1L amber glass	UNPRESERVE D	2	ERH 2569	✓	2	✓
TPH d/o	1L amber glass	H2SO4	2	ERH 2569	✓	2	✓
Total Organic Carbon by EPA 9060	250 mL amber glass	H3PO4	2	ERH 2569	✓	2	✓
Total Lead by EPA 6020	250 mL plastic	HNO3	1	ERH 2569	✓	1	✓
Dissolved Lead by EPA 6020 (field filtered)	250 mL plastic	HNO3	1	ERH 2569	✓	1	✓
TRIP BLANKS							
VOCs, TPH-G	40-mL VOA	HCl	4	ERH 2568	✓	4	✓
EDB	40-mL VOA	HCl	2	ERH 2568	✓	2	✓
Methane	40-mL VOA	H2SO4	2	ERH 2568	✓	2	✓

Comments:

ALL VOAs CHECKED FOR BUBBLES? ☒/N is bubble smaller than a pea-size? ☒/N; if No, please bring to one of the Lead's attention. *TB 8011 (1 bottle)

FILTER INSIDE COOLERS? ☒/N

ADDITIONAL PLASTIC BAGS? ☒/N

CUSTODY SEAL INCLUDED? ☒/N

LIST LABS TO SEND SAMPLES: ENERGY

***** Keep the form attached to the inside top of cooler*****

* Removed # 14833 bubble bigger than a pea-size.

* Now TB # 14525



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DoD Samples Page 1 of 1

Report Information (if different than Account Information)

Comments

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

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

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 SOC.

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

B22021627

Login completed by:

Date Received: 2/24/2022

Reviewed by: BL2000\gmccartney

Received by: tkb

Reviewed Date: 3/1/2022

Carrier name: FedEx

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

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 0.1°C, shipping container 2 was 0.1°C, shipping container 3 was 0.2°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.

Additional Received By:

Richard L. Shular

Taylor K. Burris

The shipping containers are processed by multiple sample receiving personnel. Reference each Chain of Custody for the individual received by signature.

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 Quantitation (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: ERH2565 (RHMW2254-01 Bailer)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-001
Collection Date: 02/22/2022 13:20
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
LOW LEVEL PAH BY 8270C SIM												
1-Methylnaphthalene	ND	ug/L	1	U	0.10	0.048	0.020		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
2-Methylnaphthalene	0.053	ug/L	1	J	0.10	0.048	0.017		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Acenaphthene	0.032	ug/L	1	J	0.10	0.048	0.030		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Acenaphthylene	ND	ug/L	1	U	0.10	0.048	0.024		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Anthracene	0.063	ug/L	1	J	0.10	0.048	0.027		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.048	0.026		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.048	0.033		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.048	0.026		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Chrysene	ND	ug/L	1	U	0.10	0.048	0.044		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.048	0.035		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Fluoranthene	0.063	ug/L	1	J	0.10	0.048	0.022		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Fluorene	0.078	ug/L	1	J	0.10	0.048	0.022		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.048	0.047		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Naphthalene	0.048	ug/L	1	J	0.10	0.048	0.028		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Phenanthrene	0.057	ug/L	1	J	0.10	0.048	0.028		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
Pyrene	0.044	ug/L	1	J	0.10	0.048	0.023		SW8270CSIM	03/3/2022 18:24/jph	SV5975.I_220303A : 7	164073
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.3 to 0.3	0.32	mg/L	1	J	0.50	0.50	0.17		SW9060A	03/1/2022 16:38/eli-ca	SUB-C280105 : 4	C_R280105
METALS, DISSOLVED												
Lead	0.00004	mg/L	1	J	0.001	0.00005	0.00003		SW6020	03/1/2022 15:41/car	ICPMS207-B_220301B : 36	R375488
METALS, TOTAL												
Lead	0.00022	mg/L	1	J	0.001	0.0001	0.00005		SW6020	03/1/2022 16:12/car	ICPMS207-B_220301B : 41	164029
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2565 (RHMW2254-01 Bailer)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-001
Collection Date: 02/22/2022 13:20
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Toluene	ND	ug/L	1	UT	1.0	0.20	0.068		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Xylenes, Total	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Surr: Dibromofluoromethane	112.0	%REC	1		80-119				SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Surr: 1,2-Dichloroethane-d4	118.0	%REC	1		81-118				SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2565 (RHMW2254-01 Bailer)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-001
Collection Date: 02/22/2022 13:20
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Surr: Toluene-d8	106.0	%REC	1		89-112				SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
Surr: p-Bromofluorobenzene	109.0	%REC	1		85-114				SW8260B	02/25/2022 14:52/msc	VOA5975C.I_220225A : 8	R375412
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	02/25/2022 16:54/clt	GECD.I_220225A : 12	164037
Surr: 1,1,1,2-Tetrachloroethane	108.0	%REC	1		70-130				SW8011	02/25/2022 16:54/clt	GECD.I_220225A : 12	164037
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.0		SW8015C	02/25/2022 11:44/jp	VARIAN1_220225A : 5	R375235
Total Purgeable Hydrocarbons	13	ug/L	1	J	20	10	3.1		SW8015C	02/25/2022 11:44/jp	VARIAN1_220225A : 5	R375235
Surr: Trifluorotoluene	75.0	%REC	1		70-130				SW8015C	02/25/2022 11:44/jp	VARIAN1_220225A : 5	R375235
- 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)	0.049	mg/L	1	J	0.30	0.14	0.037		SW8015C	02/28/2022 15:37/amn	GCFID-HP5-B_220228A : 7	164025
Diesel Range Organics (SGT-C10 to C24)	ND	mg/L	1	U	0.30	0.11	0.027		SW8015C	03/1/2022 16:30/amn	GCFID-HP5-B_220301A : 6	164025
Oil Range Hydrocarbons (C24 to C40)	0.18	mg/L	1	J	0.30	0.14	0.084		SW8015C	02/28/2022 15:37/amn	GCFID-HP5-B_220228A : 7	164025
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.14	0.084		SW8015C	03/1/2022 16:30/amn	GCFID-HP5-B_220301A : 6	164025
Total Extractable Hydrocarbons	0.26	mg/L	1	J	0.30	0.14	0.071		SW8015C	02/28/2022 15:37/amn	GCFID-HP5-B_220228A : 7	164025
Total Extractable Hydrocarbons (SGT)	0.083	mg/L	1	J	0.30	0.11	0.034		SW8015C	03/1/2022 16:30/amn	GCFID-HP5-B_220301A : 6	164025
Surr: o-Terphenyl	90.0	%REC	1		56-125				SW8015C	02/28/2022 15:37/amn	GCFID-HP5-B_220228A : 7	164025
Surr: o-Terphenyl (SGT)	90.0	%REC	1		56-125				SW8015C	03/1/2022 16:30/amn	GCFID-HP5-B_220301A : 6	164025
Surr: n-Triacontane	91.0	%REC	1		50-150				SW8015C	02/28/2022 15:37/amn	GCFID-HP5-B_220228A : 7	164025
Surr: n-Triacontane (SGT)	88.0	%REC	1		50-150				SW8015C	03/1/2022 16:30/amn	GCFID-HP5-B_220301A : 6	164025
- 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	03/1/2022 10:11/jdw	FID-HEADSPACE_220301A : 5	R375386
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.1		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.6	4.1		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2565 (RHMW2254-01 Bailer)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-001
Collection Date: 02/22/2022 13:20
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
2,6-Dinitrotoluene	ND	ug/L	1	U	10	4.8	3.1		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
2-Chloronaphthalene	ND	ug/L	1	U	10	4.8	2.1		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
2-Chlorophenol	ND	ug/L	1	U	10	4.8	2.4		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
2-Nitrophenol	ND	ug/L	1	U	10	4.8	2.3		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	4.8	2.0		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.6	2.2		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
4-Chlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.8	2.0		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
4-Nitrophenol	ND	ug/L	1	U	10	9.6	2.4		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Azobenzene	ND	ug/L	1	U	10	4.8	1.0		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.8	1.3		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.8	2.5		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.8	1.4		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.8	1.8		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Butylbenzylphthalate	ND	ug/L	1	U	10	4.8	1.5		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.8	0.90		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.8	1.3		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Diethyl phthalate	ND	ug/L	1	U	10	4.8	2.1		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Dimethyl phthalate	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Hexachlorobenzene	ND	ug/L	1	U	10	4.8	1.3		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Hexachlorobutadiene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Hexachloroethane	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Isophorone	ND	ug/L	1	U	10	4.8	1.6		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
m+p-Cresols	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.8	1.1		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Nitrobenzene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
o-Cresol	ND	ug/L	1	U	10	4.8	1.8		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Pentachlorophenol	ND	ug/L	1	U	10	9.6	4.1		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Phenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Pyridine	ND	ug/L	1	U	10	4.8	3.1		SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Surr: 2,4,6-Tribromophenol	71.0	%REC	1		43-140				SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Surr: 2-Fluorobiphenyl	45.0	%REC	1		44-119				SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Surr: 2-Fluorophenol	34.0	%REC	1		19-119				SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Surr: Nitrobenzene-d5	62.0	%REC	1		44-120				SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2565 (RHMW2254-01 Bailer)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-001
Collection Date: 02/22/2022 13:20
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Surr: Phenol-d5	36.0	%REC	1		10-65				SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073
Surr: Terphenyl-d14	105.0	%REC	1		50-134				SW8270C	03/3/2022 19:10/dsm	SV5973N.I_220303A : 6	164073



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2564 (Trip Blank)-14833
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-002
Collection Date: 02/22/2022 13:20
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Toluene	0.079	ug/L	1	J	1.0	0.20	0.068		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2564 (Trip Blank)-14833
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-002
Collection Date: 02/22/2022 13:20
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Surr: Dibromofluoromethane	109.0	%REC	1		80-119				SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Surr: 1,2-Dichloroethane-d4	117.0	%REC	1		81-118				SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Surr: Toluene-d8	107.0	%REC	1		89-112				SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412
Surr: p-Bromofluorobenzene	108.0	%REC	1		85-114				SW8260B	02/25/2022 16:14/msc	VOA5975C.I_220225A : 10	R375412



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2564 (Trip Blank)-14754
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-003
Collection Date: 02/22/2022 13:20
Date Received: 02/24/2022
Report Date: 03/08/2022

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	2.0		SW8015C	02/25/2022 15:12/jp	VARIAN1_220225A : 8	R375235
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.1		SW8015C	02/25/2022 15:12/jp	VARIAN1_220225A : 8	R375235
Surr: Trifluorotoluene	75.0	%REC	1		70-130				SW8015C	02/25/2022 15:12/jp	VARIAN1_220225A : 8	R375235
- 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: ERH2564 (Trip Blank)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-004
Collection Date: 02/22/2022 13:20
Date Received: 02/24/2022
Report Date: 03/08/2022

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	02/25/2022 14:36/clt	GECD.I_220225A : 5	164037
Surr: 1,1,1,2-Tetrachloroethane	96.0	%REC	1		70-130				SW8011	02/25/2022 14:36/clt	GECD.I_220225A : 5	164037



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2564 (Trip Blank)-14808
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-005
Collection Date: 02/22/2022 13:20
Date Received: 02/24/2022
Report Date: 03/08/2022

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	03/1/2022 10:18/jdw	FID-HEADSPACE_220301A : 6	R375386



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2569 (Sump Adit 3)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-006
Collection Date: 02/22/2022 15:10
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
LOW LEVEL PAH BY 8270C SIM												
1-Methylnaphthalene	0.042	ug/L	1	J	0.10	0.048	0.020		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
2-Methylnaphthalene	0.048	ug/L	1	J	0.10	0.048	0.017		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Acenaphthene	ND	ug/L	1	U	0.10	0.048	0.030		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Acenaphthylene	ND	ug/L	1	U	0.10	0.048	0.024		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Anthracene	ND	ug/L	1	U	0.10	0.048	0.027		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.048	0.026		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.048	0.033		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.048	0.026		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Chrysene	ND	ug/L	1	U	0.10	0.048	0.044		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.048	0.035		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Fluorene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.048	0.047		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Naphthalene	0.074	ug/L	1	J	0.10	0.048	0.028		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Phenanthrene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
Pyrene	ND	ug/L	1	U	0.10	0.048	0.023		SW8270CSIM	03/3/2022 19:29/jph	SV5975.I_220303A : 9	164073
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.5 to 0.5	0.53	mg/L	1		0.50	0.50	0.17		SW9060A	03/1/2022 18:45/eli-ca	SUB-C280105 : 7	C_R280105
METALS, DISSOLVED												
Lead	0.00021	mg/L	1	J	0.001	0.00005	0.00003		SW6020	03/1/2022 17:02/car	ICPMS207-B_220301B : 49	R375488
METALS, TOTAL												
Lead	0.001	mg/L	1		0.001	0.0001	0.00005		SW6020	03/1/2022 17:08/car	ICPMS207-B_220301B : 50	164029
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Chloroform	0.11	ug/L	1	J	1.0	0.20	0.079		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412

LABORATORY ANALYTICAL REPORT

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Client: AECOM - Honolulu
Client Sample ID: ERH2569 (Sump Adit 3)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-006
Collection Date: 02/22/2022 15:10
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Toluene	ND	ug/L	1	UT	1.0	0.20	0.068		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
o-Xylene	0.11	ug/L	1	J	1.0	0.20	0.060		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Xylenes, Total	0.11	ug/L	1	J	1.0	0.20	0.060		SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Surr: Dibromofluoromethane	115.0	%REC	1		80-119				SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Surr: 1,2-Dichloroethane-d4	119.0	%REC	1	S	81-118				SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412



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Matrix: Ground Water

Lab ID: B22021627-006
Collection Date: 02/22/2022 15:10
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Surr: Toluene-d8	107.0	%REC	1		89-112				SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
Surr: p-Bromofluorobenzene	102.0	%REC	1		85-114				SW8260B	02/25/2022 13:58/msc	VOA5975C.I_220225A : 6	R375412
- The sample had a slightly high recovery for surrogate 1,2-Dichloroethane-d4. This recovery was above the QSM 5.3 recovery limits but within EPA 8260B method defined limits. Re-analysis of a second vial produced similar results.												
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	02/25/2022 14:55/clt	GECD.I_220225A : 6	164037
Surr: 1,1,1,2-Tetrachloroethane	105.0	%REC	1		70-130				SW8011	02/25/2022 14:55/clt	GECD.I_220225A : 6	164037
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	12	ug/L	1	J	20	8.7	2.0		SW8015C	02/25/2022 12:52/jp	VARIAN1_220225A : 6	R375235
Total Purgeable Hydrocarbons	135	ug/L	1		20	10	3.1		SW8015C	02/25/2022 12:52/jp	VARIAN1_220225A : 6	R375235
Surr: Trifluorotoluene	77.0	%REC	1		70-130				SW8015C	02/25/2022 12:52/jp	VARIAN1_220225A : 6	R375235
- 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)	1.1	mg/L	1		0.30	0.14	0.037		SW8015C	02/28/2022 17:46/amn	GCFID-HP5-B_220228A : 9	164025
Diesel Range Organics (SGT-C10 to C24)	0.95	mg/L	1		0.30	0.11	0.026		SW8015C	03/1/2022 18:39/amn	GCFID-HP5-B_220301A : 8	164025
Oil Range Hydrocarbons (C24 to C40)	0.16	mg/L	1	J	0.30	0.14	0.083		SW8015C	02/28/2022 17:46/amn	GCFID-HP5-B_220228A : 9	164025
Oil Range Hydrocarbons (SGT-C24 to C40)	0.12	mg/L	1	J	0.30	0.14	0.083		SW8015C	03/1/2022 18:39/amn	GCFID-HP5-B_220301A : 8	164025
Total Extractable Hydrocarbons	1.3	mg/L	1		0.30	0.14	0.071		SW8015C	02/28/2022 17:46/amn	GCFID-HP5-B_220228A : 9	164025
Total Extractable Hydrocarbons (SGT)	1.1	mg/L	1		0.30	0.11	0.034		SW8015C	03/1/2022 18:39/amn	GCFID-HP5-B_220301A : 8	164025
Surr: o-Terphenyl	92.0	%REC	1		56-125				SW8015C	02/28/2022 17:46/amn	GCFID-HP5-B_220228A : 9	164025
Surr: o-Terphenyl (SGT)	90.0	%REC	1		56-125				SW8015C	03/1/2022 18:39/amn	GCFID-HP5-B_220301A : 8	164025
Surr: n-Triacontane	85.0	%REC	1		50-150				SW8015C	02/28/2022 17:46/amn	GCFID-HP5-B_220228A : 9	164025
Surr: n-Triacontane (SGT)	76.0	%REC	1		50-150				SW8015C	03/1/2022 18:39/amn	GCFID-HP5-B_220301A : 8	164025
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
ORGANIC CHARACTERISTICS												
Methane	0.0032	mg/L	1		0.0020	0.0012	0.00070		SW8015M	03/1/2022 10:23/jdw	FID-HEADSPACE_220301A : 7	R375386
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.1		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.6	4.1		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073



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Matrix: Ground Water

Lab ID: B22021627-006
Collection Date: 02/22/2022 15:10
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Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
2,6-Dinitrotoluene	ND	ug/L	1	U	10	4.8	3.1		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
2-Chloronaphthalene	ND	ug/L	1	U	10	4.8	2.1		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
2-Chlorophenol	ND	ug/L	1	U	10	4.8	2.4		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
2-Nitrophenol	ND	ug/L	1	U	10	4.8	2.3		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	4.8	2.0		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.6	2.2		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
4-Chlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.8	2.0		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
4-Nitrophenol	ND	ug/L	1	U	10	9.6	2.4		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Azobenzene	ND	ug/L	1	U	10	4.8	1.0		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.8	1.3		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.8	2.5		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.8	1.4		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.8	1.8		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Butylbenzylphthalate	ND	ug/L	1	U	10	4.8	1.5		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.8	0.90		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.8	1.3		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Diethyl phthalate	ND	ug/L	1	U	10	4.8	2.1		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Dimethyl phthalate	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Hexachlorobenzene	ND	ug/L	1	U	10	4.8	1.3		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Hexachlorobutadiene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Hexachloroethane	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Isophorone	ND	ug/L	1	U	10	4.8	1.6		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
m+p-Cresols	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.8	1.1		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Nitrobenzene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
o-Cresol	ND	ug/L	1	U	10	4.8	1.8		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Pentachlorophenol	ND	ug/L	1	U	10	9.6	4.1		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Phenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Pyridine	ND	ug/L	1	U	10	4.8	3.1		SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Surr: 2,4,6-Tribromophenol	78.0	%REC	1		43-140				SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Surr: 2-Fluorobiphenyl	57.0	%REC	1		44-119				SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Surr: 2-Fluorophenol	33.0	%REC	1		19-119				SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2569 (Sump Adit 3)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-006
Collection Date: 02/22/2022 15:10
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Surr: Nitrobenzene-d5	67.0	%REC	1		44-120				SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Surr: Phenol-d5	34.0	%REC	1		10-65				SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073
Surr: Terphenyl-d14	110.0	%REC	1		50-134				SW8270C	03/3/2022 19:42/dsm	SV5973N.I_220303A : 7	164073

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH 2568 (Trip Blank)-14525
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-007
Collection Date: 02/22/2022 15:10
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Toluene	0.17	ug/L	1	J	1.0	0.20	0.068		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH 2568 (Trip Blank)-14525
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-007
Collection Date: 02/22/2022 15:10
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Surr: Dibromofluoromethane	112.0	%REC	1		80-119				SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Surr: 1,2-Dichloroethane-d4	117.0	%REC	1		81-118				SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Surr: Toluene-d8	106.0	%REC	1		89-112				SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412
Surr: p-Bromofluorobenzene	109.0	%REC	1		85-114				SW8260B	02/25/2022 16:42/msc	VOA5975C.I_220225A : 11	R375412



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH 2568 (Trip Blank)-14754
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-008
Collection Date: 02/22/2022 15:10
Date Received: 02/24/2022
Report Date: 03/08/2022

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	2.0		SW8015C	02/25/2022 15:46/jp	VARIAN1_220225A : 9	R375235
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.1		SW8015C	02/25/2022 15:46/jp	VARIAN1_220225A : 9	R375235
Surr: Trifluorotoluene	77.0	%REC	1		70-130				SW8015C	02/25/2022 15:46/jp	VARIAN1_220225A : 9	R375235
- 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: ERH 2568 (Trip Blank)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-009
Collection Date: 02/22/2022 15:10
Date Received: 02/24/2022
Report Date: 03/08/2022

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	02/25/2022 15:15/clt	GECD.I_220225A : 7	164037
Surr: 1,1,1,2-Tetrachloroethane	106.0	%REC	1		70-130				SW8011	02/25/2022 15:15/clt	GECD.I_220225A : 7	164037



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH 2568 (Trip Blank)-14732
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-010
Collection Date: 02/22/2022 15:10
Date Received: 02/24/2022
Report Date: 03/08/2022

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	03/1/2022 10:50/jdw	FID-HEADSPACE_220301A : 9	R375386



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2567 (RHMW2254-01 Low-flow)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-011
Collection Date: 02/22/2022 13:45
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
LOW LEVEL PAH BY 8270C SIM												
1-Methylnaphthalene	ND	ug/L	1	U	0.10	0.048	0.020		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.048	0.017		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Acenaphthene	ND	ug/L	1	U	0.10	0.048	0.030		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Acenaphthylene	ND	ug/L	1	U	0.10	0.048	0.024		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Anthracene	ND	ug/L	1	U	0.10	0.048	0.027		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.048	0.026		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.048	0.033		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.048	0.025		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Chrysene	ND	ug/L	1	U	0.10	0.048	0.044		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.048	0.035		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Fluorene	ND	ug/L	1	U	0.10	0.048	0.021		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.048	0.047		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Naphthalene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Phenanthrene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
Pyrene	ND	ug/L	1	U	0.10	0.048	0.023		SW8270CSIM	03/3/2022 20:34/jph	SV5975.I_220303A : 11	164073
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.3 to 0.3	0.26	mg/L	1	J	0.50	0.50	0.17		SW9060A	03/1/2022 19:26/eli-ca	SUB-C280105 : 8	C_R280105
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.00005	0.00003		SW6020	03/1/2022 17:14/car	ICPMS207-B_220301B : 51	R375488
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00005		SW6020	03/1/2022 17:20/car	ICPMS207-B_220301B : 52	164029
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2567 (RHMW2254-01 Low-flow)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-011
Collection Date: 02/22/2022 13:45
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Surr: Dibromofluoromethane	110.0	%REC	1		80-119				SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Surr: 1,2-Dichloroethane-d4	112.0	%REC	1		81-118				SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412



LABORATORY ANALYTICAL REPORT

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Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-011
Collection Date: 02/22/2022 13:45
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Surr: Toluene-d8	107.0	%REC	1		89-112				SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
Surr: p-Bromofluorobenzene	107.0	%REC	1		85-114				SW8260B	02/25/2022 14:25/msc	VOA5975C.I_220225A : 7	R375412
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	02/25/2022 15:35/clt	GECD.I_220225A : 8	164037
Surr: 1,1,1,2-Tetrachloroethane	101.0	%REC	1		70-130				SW8011	02/25/2022 15:35/clt	GECD.I_220225A : 8	164037
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.0		SW8015C	02/25/2022 14:03/jp	VARIAN1_220225A : 7	R375235
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.1		SW8015C	02/25/2022 14:03/jp	VARIAN1_220225A : 7	R375235
Surr: Trifluorotoluene	77.0	%REC	1		70-130				SW8015C	02/25/2022 14:03/jp	VARIAN1_220225A : 7	R375235
- Note 1: C6 to C10 is defined as all hydrocarbons eluting between 2-Methylpentane and 1,2,4-Trimethylbenzene.												
- Note 2: Total Purgeable Hydrocarbons are defined as the total hydrocarbon response regardless of elution time.												
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Diesel Range Organics (C10 to C24)	ND	mg/L	1	U	0.30	0.14	0.037		SW8015C	02/28/2022 14:54/amn	GCFID-HP5-B_220228A : 6	164025
Oil Range Hydrocarbons (C24 to C40)	ND	mg/L	1	U	0.30	0.14	0.083		SW8015C	02/28/2022 14:54/amn	GCFID-HP5-B_220228A : 6	164025
Total Extractable Hydrocarbons	ND	mg/L	1	U	0.30	0.14	0.071		SW8015C	02/28/2022 14:54/amn	GCFID-HP5-B_220228A : 6	164025
Surr: o-Terphenyl	106.0	%REC	1		56-125				SW8015C	02/28/2022 14:54/amn	GCFID-HP5-B_220228A : 6	164025
Surr: n-Triacontane	97.0	%REC	1		50-150				SW8015C	02/28/2022 14:54/amn	GCFID-HP5-B_220228A : 6	164025
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
- Since there were no detectable hydrocarbons, Silica Gel Treatment (SGT) results are equivalent to non-SGT results.												
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	03/1/2022 10:56/jdw	FID-HEADSPACE_220301A : 10	R375386
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.1		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.5	4.1		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
2,6-Dinitrotoluene	ND	ug/L	1	U	10	4.8	3.0		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
2-Chloronaphthalene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
2-Chlorophenol	ND	ug/L	1	U	10	4.8	2.4		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
2-Nitrophenol	ND	ug/L	1	U	10	4.8	2.2		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	4.8	2.0		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.5	2.2		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073

LABORATORY ANALYTICAL REPORT

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Client: AECOM - Honolulu
Client Sample ID: ERH2567 (RHMW2254-01 Low-flow)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22021627-011
Collection Date: 02/22/2022 13:45
Date Received: 02/24/2022
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Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
4-Chlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.9		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
4-Nitrophenol	ND	ug/L	1	U	10	9.5	2.4		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Azobenzene	ND	ug/L	1	U	10	4.8	1.0		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.8	1.3		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.8	2.4		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.8	1.4		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.8	1.8		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Butylbenzylphthalate	ND	ug/L	1	U	10	4.8	1.5		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.8	0.89		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.8	1.3		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Diethyl phthalate	ND	ug/L	1	U	10	4.8	2.1		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Dimethyl phthalate	ND	ug/L	1	U	10	4.8	1.6		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Hexachlorobenzene	ND	ug/L	1	U	10	4.8	1.3		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Hexachlorobutadiene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.8	2.8		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Hexachloroethane	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Isophorone	ND	ug/L	1	U	10	4.8	1.6		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
m+p-Cresols	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.8	1.1		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Nitrobenzene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
o-Cresol	ND	ug/L	1	U	10	4.8	1.7		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Pentachlorophenol	ND	ug/L	1	U	10	9.5	4.0		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Phenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Pyridine	ND	ug/L	1	U	10	4.8	3.1		SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Surr: 2,4,6-Tribromophenol	72.0	%REC	1		43-140				SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Surr: 2-Fluorobiphenyl	39.0	%REC	1	S	44-119				SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Surr: 2-Fluorophenol	32.0	%REC	1		19-119				SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Surr: Nitrobenzene-d5	59.0	%REC	1		44-120				SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Surr: Phenol-d5	31.0	%REC	1		10-65				SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073
Surr: Terphenyl-d14	102.0	%REC	1		50-134				SW8270C	03/3/2022 20:15/dsm	SV5973N.I_220303A : 8	164073

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2566 (Trip Blank)-14833
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-012
Collection Date: 02/22/2022 13:45
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2566 (Trip Blank)-14833
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-012
Collection Date: 02/22/2022 13:45
Date Received: 02/24/2022
Report Date: 03/08/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Surr: Dibromofluoromethane	110.0	%REC	1		80-119				SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Surr: 1,2-Dichloroethane-d4	113.0	%REC	1		81-118				SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Surr: Toluene-d8	105.0	%REC	1		89-112				SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412
Surr: p-Bromofluorobenzene	106.0	%REC	1		85-114				SW8260B	02/25/2022 17:09/msc	VOA5975C.I_220225A : 12	R375412



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2566 (Trip Blank)-14754
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-013
Collection Date: 02/22/2022 13:45
Date Received: 02/24/2022
Report Date: 03/08/2022

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	2.0		SW8015C	02/25/2022 16:20/jp	VARIAN1_220225A : 10	R375235
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.1		SW8015C	02/25/2022 16:20/jp	VARIAN1_220225A : 10	R375235
Surr: Trifluorotoluene	78.0	%REC	1		70-130				SW8015C	02/25/2022 16:20/jp	VARIAN1_220225A : 10	R375235
- 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: ERH2566 (Trip Blank)-14833
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-014
Collection Date: 02/22/2022 13:45
Date Received: 02/24/2022
Report Date: 03/08/2022

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	02/25/2022 15:55/clt	GECD.I_220225A : 9	164037
Surr: 1,1,1,2-Tetrachloroethane	102.0	%REC	1		70-130				SW8011	02/25/2022 15:55/clt	GECD.I_220225A : 9	164037



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2566 (Trip Blank)-14732
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22021627-015
Collection Date: 02/22/2022 13:45
Date Received: 02/24/2022
Report Date: 03/08/2022

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	03/1/2022 11:02/jdw	FID-HEADSPACE_220301A : 11	R375386



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5975.I_220303A: 4
Method: SW8270CSIM
Lab ID: MB-164073

SampType: Method Blank
Analysis Date: 03/03/2022 16:46
Units: ug/L

Batch ID: 164073
Prep Date: 02/28/2022 08:50
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	0.10									
2-Methylnaphthalene	ND	0.10									
Acenaphthene	ND	0.10									
Acenaphthylene	ND	0.10									
Anthracene	ND	0.10									
Benzo(a)anthracene	ND	0.10									
Benzo(a)pyrene	ND	0.10									
Benzo(b)fluoranthene	ND	0.10									
Benzo(g,h,i)perylene	ND	0.10									
Benzo(k)fluoranthene	ND	0.10									
Chrysene	ND	0.10									
Dibenzo(a,h)anthracene	ND	0.10									
Fluoranthene	ND	0.10									
Fluorene	ND	0.10									
Indeno(1,2,3-cd)pyrene	ND	0.10									
Naphthalene	ND	0.10									
Phenanthrene	ND	0.10									
Pyrene	ND	0.10									

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C

Run ID: Run Order: SV5975.I_220303A: 5
Method: SW8270CSIM
Lab ID: LLCS-164073

SampType: Laboratory Control Sample
Analysis Date: 03/03/2022 17:18
Units: ug/L

Batch ID: 164073
Prep Date: 02/28/2022 08:50
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.8	0.10	5.0		57.0	41	115				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5975.I_220303A: 5
Method: SW8270CSIM
Lab ID: LLCS-164073

SampType: Laboratory Control Sample
Analysis Date: 03/03/2022 17:18
Units: ug/L

Batch ID: 164073
Prep Date: 02/28/2022 08:50
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Methylnaphthalene	3.4	0.10	5.0		69.0	39	114				
Acenaphthene	3.7	0.10	5.0		75.0	48	114				
Acenaphthylene	3.3	0.10	5.0		67.0	35	121				
Anthracene	4.2	0.10	5.0		83.0	53	119				
Benzo(a)anthracene	4.4	0.10	5.0		88.0	59	120				
Benzo(a)pyrene	3.9	0.10	5.0		79.0	53	120				
Benzo(b)fluoranthene	4.5	0.10	5.0		89.0	53	126				
Benzo(g,h,i)perylene	4.1	0.10	5.0		81.0	44	128				
Benzo(k)fluoranthene	4.1	0.10	5.0		82.0	54	125				
Chrysene	4.6	0.10	5.0		92.0	57	120				
Dibenzo(a,h)anthracene	4.2	0.10	5.0		84.0	44	141				
Fluoranthene	4.0	0.10	5.0		80.0	58	120				
Fluorene	3.8	0.10	5.0		76.0	50	118				
Indeno(1,2,3-cd)pyrene	4.2	0.10	5.0		83.0	48	130				
Naphthalene	3.0	0.10	5.0		60.0	43	114				
Phenanthrene	4.2	0.10	5.0		84.0	53	115				
Pyrene	4.3	0.10	5.0		85.0	53	121				

Associated Samples: **B22021627-001C, B22021627-006C, B22021627-011C**

Run ID: Run Order: SV5975.I_220303A: 6
Method: SW8270CSIM
Lab ID: LLCSD-164073

SampType: Laboratory Control Sample Duplicate
Analysis Date: 03/03/2022 17:51
Units: ug/L

Batch ID: 164073
Prep Date: 02/28/2022 08:50
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.5	0.10	5.0		50.0	41	115	2.8	13.0	40.0	
2-Methylnaphthalene	3.0	0.10	5.0		60.0	39	114	3.4	14.0	40.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5975.I_220303A: 6
Method: SW8270CSIM
Lab ID: LLCSD-164073

SampType: Laboratory Control Sample Duplicate
Analysis Date: 03/03/2022 17:51
Units: ug/L

Batch ID: 164073
Prep Date: 02/28/2022 08:50
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Acenaphthene	3.6	0.10	5.0		72.0	48	114	3.7	3.8	40.0	
Acenaphthylene	3.2	0.10	5.0		65.0	35	121	3.3	3.1	40.0	
Anthracene	4.3	0.10	5.0		86.0	53	119	4.2	3.0	40.0	
Benzo(a)anthracene	4.4	0.10	5.0		87.0	59	120	4.4	1.0	40.0	
Benzo(a)pyrene	3.9	0.10	5.0		78.0	53	120	3.9	1.7	40.0	
Benzo(b)fluoranthene	4.4	0.10	5.0		88.0	53	126	4.5	1.1	40.0	
Benzo(g,h,i)perylene	4.1	0.10	5.0		82.0	44	128	4.1	0.3	40.0	
Benzo(k)fluoranthene	4.4	0.10	5.0		88.0	54	125	4.1	6.3	40.0	
Chrysene	4.6	0.10	5.0		92.0	57	120	4.6	0.2	40.0	
Dibenzo(a,h)anthracene	4.1	0.10	5.0		82.0	44	141	4.2	2.7	40.0	
Fluoranthene	3.9	0.10	5.0		79.0	58	120	4.0	1.0	40.0	
Fluorene	3.7	0.10	5.0		75.0	50	118	3.8	1.3	40.0	
Indeno(1,2,3-cd)pyrene	4.1	0.10	5.0		82.0	48	130	4.2	1.9	40.0	
Naphthalene	2.5	0.10	5.0		49.0	43	114	3.0	20.0	40.0	
Phenanthrene	4.2	0.10	5.0		83.0	53	115	4.2	1.3	40.0	
Pyrene	4.3	0.10	5.0		87.0	53	121	4.3	1.4	40.0	

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C

Run ID: Run Order: SV5975.I_220303A: 8
Method: SW8270CSIM
Lab ID: B22021627-001CLMS

SampType: Sample Matrix Spike
Analysis Date: 03/03/2022 18:56
Units: ug/L

Batch ID: 164073
Prep Date: 02/28/2022 08:51
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.3	0.10	4.8	0.0	48.0	41	115				
2-Methylnaphthalene	2.8	0.10	4.8	0.053	57.0	39	114				
Acenaphthene	3.0	0.10	4.8	0.032	62.0	48	114				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5975.I_220303A: 8
Method: SW8270CSIM
Lab ID: B22021627-001CLMS

SampType: Sample Matrix Spike
Analysis Date: 03/03/2022 18:56
Units: ug/L

Batch ID: 164073
Prep Date: 02/28/2022 08:51
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Acenaphthylene	2.6	0.10	4.8	0.0	55.0	35	121				
Anthracene	3.9	0.10	4.8	0.063	81.0	53	119				
Benzo(a)anthracene	4.3	0.10	4.8	0.0	90.0	59	120				
Benzo(a)pyrene	3.8	0.10	4.8	0.0	79.0	53	120				
Benzo(b)fluoranthene	5.3	0.10	4.8	0.0	109.0	53	126				
Benzo(g,h,i)perylene	4.6	0.10	4.8	0.0	95.0	44	128				
Benzo(k)fluoranthene	4.6	0.10	4.8	0.0	95.0	54	125				
Chrysene	4.3	0.10	4.8	0.0	89.0	57	120				
Dibenzo(a,h)anthracene	5.0	0.10	4.8	0.0	105.0	44	141				
Fluoranthene	3.9	0.10	4.8	0.063	79.0	58	120				
Fluorene	3.5	0.10	4.8	0.078	71.0	50	118				
Indeno(1,2,3-cd)pyrene	4.4	0.10	4.8	0.0	91.0	48	130				
Naphthalene	2.4	0.10	4.8	0.048	48.0	43	114				
Phenanthrene	4.0	0.10	4.8	0.057	81.0	53	115				
Pyrene	4.0	0.10	4.8	0.044	82.0	53	121				

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5975.I_220303A: 10

SampType: Sample Matrix Spike

Batch ID: 164073

Method: SW8270CSIM

Analysis Date: 03/03/2022 20:02

Prep Date: 02/28/2022 08:51

Lab ID: B22021627-006CLMS

Units: ug/L

Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.2	0.10	4.8	0.042	45.0	41	115				
2-Methylnaphthalene	2.3	0.10	4.8	0.048	47.0	39	114				
Acenaphthene	2.4	0.10	4.8	0.0	50.0	48	114				
Acenaphthylene	2.0	0.10	4.8	0.0	42.0	35	121				
Anthracene	3.7	0.10	4.8	0.0	76.0	53	119				
Benzo(a)anthracene	4.0	0.10	4.8	0.0	83.0	59	120				
Benzo(a)pyrene	3.5	0.10	4.8	0.0	72.0	53	120				
Benzo(b)fluoranthene	4.1	0.10	4.8	0.0	85.0	53	126				
Benzo(g,h,i)perylene	3.6	0.10	4.8	0.0	75.0	44	128				
Benzo(k)fluoranthene	3.7	0.10	4.8	0.0	76.0	54	125				
Chrysene	4.0	0.10	4.8	0.0	84.0	57	120				
Dibenzo(a,h)anthracene	3.8	0.10	4.8	0.0	78.0	44	141				
Fluoranthene	3.5	0.10	4.8	0.0	74.0	58	120				
Fluorene	2.8	0.10	4.8	0.0	59.0	50	118				
Indeno(1,2,3-cd)pyrene	3.6	0.10	4.8	0.0	74.0	48	130				
Naphthalene	2.1	0.10	4.8	0.074	43.0	43	114				
Phenanthrene	3.6	0.10	4.8	0.0	75.0	53	115				
Pyrene	3.8	0.10	4.8	0.0	79.0	53	121				

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5975.I_220303A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375581
Method: SW8270CSIM **Analysis Date:** 03/03/2022 12:25 **Prep Date:**
Lab ID: 03-Mar-22_CCV_2 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.0	0.10	2.0		99.0	80	120				
2-Methylnaphthalene	2.0	0.10	2.0		99.0	80	120				
Acenaphthene	1.9	0.10	2.0		95.0	80	120				
Acenaphthylene	1.7	0.10	2.0		87.0	80	120				
Anthracene	1.8	0.10	2.0		88.0	80	120				
Benzo(a)anthracene	1.8	0.10	2.0		89.0	80	120				
Benzo(a)pyrene	1.9	0.10	2.0		96.0	80	120				
Benzo(b)fluoranthene	2.1	0.10	2.0		106.0	80	120				
Benzo(g,h,i)perylene	2.0	0.10	2.0		100.0	80	120				
Benzo(k)fluoranthene	2.0	0.10	2.0		98.0	80	120				
Chrysene	2.0	0.10	2.0		98.0	80	120				
Dibenzo(a,h)anthracene	1.9	0.10	2.0		97.0	80	120				
Fluoranthene	1.7	0.10	2.0		84.0	80	120				
Fluorene	1.9	0.10	2.0		93.0	80	120				
Indeno(1,2,3-cd)pyrene	1.8	0.10	2.0		92.0	80	120				
Naphthalene	1.9	0.10	2.0		93.0	80	120				
Phenanthrene	1.8	0.10	2.0		90.0	80	120				
Pyrene	1.7	0.10	2.0		87.0	80	120				

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C

Run ID: Run Order: SV5975.I_220303A: 17 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375581
Method: SW8270CSIM **Analysis Date:** 03/03/2022 23:50 **Prep Date:**
Lab ID: 03-Mar-22_CCV_23 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	1.9	0.10	2.0		94.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5975.I_220303A: 17

SampType: Continuing Calibration Verification Standard

Batch ID: R375581

Method: SW8270CSIM

Analysis Date: 03/03/2022 23:50

Prep Date:

Lab ID: 03-Mar-22_CCV_23

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Methylnaphthalene	2.1	0.10	2.0		107.0	50	150				
Acenaphthene	1.8	0.10	2.0		91.0	50	150				
Acenaphthylene	1.7	0.10	2.0		86.0	50	150				
Anthracene	1.8	0.10	2.0		89.0	50	150				
Benzo(a)anthracene	1.8	0.10	2.0		89.0	50	150				
Benzo(a)pyrene	1.9	0.10	2.0		93.0	50	150				
Benzo(b)fluoranthene	2.0	0.10	2.0		101.0	50	150				
Benzo(g,h,i)perylene	1.9	0.10	2.0		97.0	50	150				
Benzo(k)fluoranthene	2.0	0.10	2.0		102.0	50	150				
Chrysene	1.8	0.10	2.0		92.0	50	150				
Dibenzo(a,h)anthracene	1.9	0.10	2.0		96.0	50	150				
Fluoranthene	1.8	0.10	2.0		88.0	50	150				
Fluorene	1.8	0.10	2.0		89.0	50	150				
Indeno(1,2,3-cd)pyrene	1.9	0.10	2.0		95.0	50	150				
Naphthalene	1.9	0.10	2.0		95.0	50	150				
Phenanthrene	1.8	0.10	2.0		90.0	50	150				
Pyrene	1.8	0.10	2.0		89.0	50	150				

Associated Samples: **B22021627-001C, B22021627-006C, B22021627-011C**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SUB-C280105: 2 **SampType:** Method Blank **Batch ID:** C_R280105
Method: SW9060A **Analysis Date:** 03/01/2022 15:18 **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: B22021627-001E, B22021627-006E, B22021627-011E
- TOC Range is 0.0 to 0.0

Run ID: Run Order: SUB-C280105: 1 **SampType:** Laboratory Control Sample **Batch ID:** C_R280105
Method: SW9060A **Analysis Date:** 03/01/2022 14:37 **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)	5.0	0.50	5.0		99.0	91	111				

Associated Samples: B22021627-001E, B22021627-006E, B22021627-011E
- TOC Range is 4.9 to 5.0

Run ID: Run Order: SUB-C280105: 5 **SampType:** Sample Matrix Spike **Batch ID:** C_R280105
Method: SW9060A **Analysis Date:** 03/01/2022 17:20 **Prep Date:**
Lab ID: C22030010-001EMS **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.1	0.50	5.0	0.32	96.0	91	111				

Associated Samples: B22021627-001E, B22021627-006E, B22021627-011E
- TOC Range is 5.1 to 5.1



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SUB-C280105: 6 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** C_R280105
Method: SW9060A **Analysis Date:** 03/01/2022 18:02 **Prep Date:**
Lab ID: C22030010-001EMSD **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.1	0.50	5.0	0.32	96.0	91	111	5.1	0.1	10.0	

Associated Samples: B22021627-001E, B22021627-006E, B22021627-011E
- TOC Range is 5.1 to 5.1

Run ID: Run Order: SUB-C280105: 3 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R280105
Method: SW9060A **Analysis Date:** 03/01/2022 15:57 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	4.8	0.50	5.0		97.0	90	110				

Associated Samples: B22021627-001E, B22021627-006E, B22021627-011E
- TOC Range is 4.8 to 4.9

Run ID: Run Order: SUB-C280105: 9 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R280105
Method: SW9060A **Analysis Date:** 03/01/2022 22:49 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	4.9	0.50	5.0		97.0	90	110				

Associated Samples: B22021627-001E, B22021627-006E, B22021627-011E
- TOC Range is 4.8 to 4.9



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: ICPMS207-B_220301B: 45 **SampType:** Post Digestion/Distillation Spike **Batch ID:** R375488
Method: SW6020 **Analysis Date:** 03/01/2022 16:37 **Prep Date:** 02/25/2022 08:25
Lab ID: B22021627-001BPDS1 **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	0.052	0	94.0	80	120				

Associated Samples: B22021627-001A, B22021627-001B, B22021627-006A, B22021627-011A

Run ID: Run Order: ICPMS207-B_220301B: 23 **SampType:** Method Blank **Batch ID:** R375488
Method: SW6020 **Analysis Date:** 03/01/2022 14:19 **Prep Date:**
Lab ID: LRB **Units:** mg/L **Prep Method:**

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

Associated Samples: B22021627-001A, B22021627-006A, B22021627-011A

Run ID: Run Order: ICPMS207-B_220301B: 24 **SampType:** Laboratory Fortified Blank **Batch ID:** R375488
Method: SW6020 **Analysis Date:** 03/01/2022 14:26 **Prep Date:**
Lab ID: LFB **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.050	0.001	0.050		101.0	85	115				

Associated Samples: B22021627-001A, B22021627-006A, B22021627-011A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: ICPMS207-B_220301B: 38 **SampType:** Sample Matrix Spike **Batch ID:** R375488
Method: SW6020 **Analysis Date:** 03/01/2022 15:53 **Prep Date:**
Lab ID: B22021627-001AMS **Units:** mg/L **Prep Method:**

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

Associated Samples: B22021627-001A, B22021627-006A, B22021627-011A

Run ID: Run Order: ICPMS207-B_220301B: 39 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R375488
Method: SW6020 **Analysis Date:** 03/01/2022 15:59 **Prep Date:**
Lab ID: B22021627-001AMSD **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.051	0.001	0.050	0	101.0	88	115	0.050	0.9	20.0	

Associated Samples: B22021627-001A, B22021627-006A, B22021627-011A

Run ID: Run Order: ICPMS207-B_220301B: 37 **SampType:** Serial Dilution **Batch ID:** R375488
Method: SW6020 **Analysis Date:** 03/01/2022 15:47 **Prep Date:**
Lab ID: B22021627-001ADIL **Units:** mg/L **Prep Method:**

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

Associated Samples: B22021627-001A, B22021627-006A, B22021627-011A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: ICPMS207-B_220301B: 33 **SampType:** Laboratory Control Sample **Batch ID:** 164029
Method: SW6020 **Analysis Date:** 03/01/2022 15:22 **Prep Date:** 02/25/2022 08:24
Lab ID: LCS4-164029 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.097	0.001	0.100		97.0	88	115				

Associated Samples: B22021627-001B, B22021627-006B, B22021627-011B

Run ID: Run Order: ICPMS207-B_220301B: 46 **SampType:** Matrix Spike **Batch ID:** 164029
Method: SW6020 **Analysis Date:** 03/01/2022 16:43 **Prep Date:** 02/25/2022 08:25
Lab ID: B22021627-001BMS4 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.098	0.001	0.100	0	97.0	88	115				

Associated Samples: B22021627-001B, B22021627-006B, B22021627-011B

Run ID: Run Order: ICPMS207-B_220301B: 47 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 164029
Method: SW6020 **Analysis Date:** 03/01/2022 16:49 **Prep Date:** 02/25/2022 08:25
Lab ID: B22021627-001BMSD4 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.095	0.001	0.100	0	95.0	88	115	0.098	2.5	20.0	

Associated Samples: B22021627-001B, B22021627-006B, B22021627-011B



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: ICPMS207-B_220301B: 31 **SampType:** Method Blank **Batch ID:** 164029
Method: SW6020 **Analysis Date:** 03/01/2022 15:09 **Prep Date:** 02/25/2022 08:24
Lab ID: MB-164029 **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: B22021627-001B, B22021627-006B, B22021627-011B

Run ID: Run Order: ICPMS207-B_220301B: 42 **SampType:** Serial Dilution **Batch ID:** 164029
Method: SW6020 **Analysis Date:** 03/01/2022 16:18 **Prep Date:** 02/25/2022 08:25
Lab ID: B22021627-001BDIL **Units:** mg/L **Prep Method:** SW3010A

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

Associated Samples: B22021627-001B, B22021627-006B, B22021627-011B

Run ID: Run Order: ICPMS207-B_220301B: 29 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375488
Method: SW6020 **Analysis Date:** 03/01/2022 14:57 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.048	0.001	0.050		96.0	90	110				

Associated Samples: B22021627-001A, B22021627-001B, B22021627-006A, B22021627-006B, B22021627-011A, B22021627-011B



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: ICPMS207-B_220301B: 43 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375488
Method: SW6020 **Analysis Date:** 03/01/2022 16:24 **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	0.050	0.001	0.050		100.0	90	110				

Associated Samples: B22021627-001A, B22021627-001B, B22021627-006A, B22021627-006B, B22021627-011A, B22021627-011B

Run ID: Run Order: ICPMS207-B_220301B: 53 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375488
Method: SW6020 **Analysis Date:** 03/01/2022 17:27 **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: B22021627-001A, B22021627-001B, B22021627-006A, B22021627-006B, B22021627-011A, B22021627-011B



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 4

SampType: Method Blank

Batch ID: R375412

Method: SW8260B

Analysis Date: 02/25/2022 12:37

Prep Date:

Lab ID: MBLK022522_

Units: ug/L

Prep Method:

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



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 4

SampType: Method Blank

Batch ID: R375412

Method: SW8260B

Analysis Date: 02/25/2022 12:37

Prep Date:

Lab ID: MBLK022522_

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
trans-1,3-Dichloropropene	ND	0.50									
Ethylbenzene	ND	0.50									
Methyl tert-butyl ether (MTBE)	ND	0.50									
Methyl ethyl ketone	ND	10									
Methylene chloride	ND	0.50									
Styrene	ND	0.50									
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
Vinyl chloride	ND	0.50									
m+p-Xylenes	ND	0.50									
o-Xylene	ND	0.50									
Xylenes, Total	ND	0.50									
Surr: 1,2-Dichloroethane-d4	11	0.50	10		114.0	81	118				
Surr: Dibromofluoromethane	11	0.50	10		112.0	80	119				
Surr: p-Bromofluorobenzene	11	0.50	10		106.0	85	114				
Surr: Toluene-d8	11	0.50	10		105.0	89	112				

Associated Samples: B22021627-001F, B22021627-002A, B22021627-006F, B22021627-007A, B22021627-011F, B22021627-012A

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 3

SampType: Laboratory Control Sample

Batch ID: R375412

Method: SW8260B

Analysis Date: 02/25/2022 11:42

Prep Date:

Lab ID: LCS022522_

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	4.7	0.50	5.0		95.0	79	120				
Bromobenzene	5.0	0.50	5.0		100.0	80	120				
Bromochloromethane	4.6	0.50	5.0		92.0	78	123				
Bromodichloromethane	4.9	0.50	5.0		98.0	79	125				
Bromoform	4.9	0.50	5.0		99.0	66	130				
Carbon tetrachloride	4.6	0.50	5.0		92.0	72	136				
Chlorobenzene	4.9	0.50	5.0		98.0	82	118				
Chlorodibromomethane	4.7	0.50	5.0		94.0	74	126				
Chloroethane	5.3	0.50	5.0		105.0	60	138				
Chloroform	4.5	0.50	5.0		89.0	79	124				
Chloromethane	5.1	0.50	5.0		102.0	50	139				
1,2-Dibromoethane	4.8	0.50	5.0		96.0	78	122				
2-Chlorotoluene	4.9	0.50	5.0		98.0	79	122				
Dibromomethane	4.8	0.50	5.0		96.0	79	123				
1,2-Dichlorobenzene	4.9	0.50	5.0		98.0	80	119				
4-Chlorotoluene	5.1	0.50	5.0		103.0	78	122				
1,3-Dichlorobenzene	5.0	0.50	5.0		100.0	80	119				
1,4-Dichlorobenzene	4.9	0.50	5.0		98.0	79	118				
Dichlorodifluoromethane	4.9	0.50	5.0		98.0	32	152				
1,1-Dichloroethane	4.7	0.50	5.0		95.0	77	125				
1,2-Dichloroethane	4.6	0.50	5.0		92.0	73	128				
1,1-Dichloroethene	4.6	0.50	5.0		92.0	71	131				
cis-1,2-Dichloroethene	4.6	0.50	5.0		93.0	78	123				
trans-1,2-Dichloroethene	4.7	0.50	5.0		95.0	75	124				
1,2-Dichloropropane	4.8	0.50	5.0		97.0	78	122				
1,3-Dichloropropane	4.8	0.50	5.0		97.0	80	119				
2,2-Dichloropropane	4.8	0.50	5.0		96.0	60	139				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R375412
Method: SW8260B **Analysis Date:** 02/25/2022 11:42 **Prep Date:**
Lab ID: LCS022522_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	4.5	0.50	5.0		89.0	79	125				
cis-1,3-Dichloropropene	4.5	0.50	5.0		91.0	75	124				
trans-1,3-Dichloropropene	4.9	0.50	5.0		99.0	73	127				
Ethylbenzene	4.7	0.50	5.0		94.0	79	121				
Methyl tert-butyl ether (MTBE)	4.7	0.50	5.0		93.0	71	124				
Methyl ethyl ketone	50	10	50		99.0	56	143				
Methylene chloride	4.6	0.50	5.0		93.0	74	124				
Styrene	4.8	0.50	5.0		95.0	78	123				
1,1,1,2-Tetrachloroethane	4.6	0.50	5.0		92.0	78	124				
1,1,2,2-Tetrachloroethane	5.0	0.50	5.0		101.0	71	121				
Tetrachloroethene	4.6	0.50	5.0		91.0	74	129				
Toluene	4.9	0.50	5.0		97.0	80	121				
1,1,1-Trichloroethane	4.6	0.50	5.0		92.0	74	131				
1,1,2-Trichloroethane	5.0	0.50	5.0		99.0	80	119				
Trichloroethene	4.8	0.50	5.0		96.0	79	123				
Trichlorofluoromethane	5.5	0.50	5.0		109.0	65	141				
1,2,3-Trichloropropane	4.8	0.50	5.0		96.0	73	125				
Vinyl chloride	5.4	0.50	5.0		108.0	58	137				
m+p-Xylenes	9.2	0.50	10		92.0	80	121				
o-Xylene	4.7	0.50	5.0		95.0	78	122				
Xylenes, Total	14	0.50	15		93.0	79	121				
Surr: 1,2-Dichloroethane-d4	11	0.50	10		114.0	81	118				
Surr: Dibromofluoromethane	11	0.50	10		109.0	80	119				
Surr: p-Bromofluorobenzene	11	0.50	10		108.0	85	114				
Surr: Toluene-d8	11	0.50	10		109.0	89	112				

Associated Samples: B22021627-001F, B22021627-002A, B22021627-006F, B22021627-007A, B22021627-011F, B22021627-012A

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 14

SampType: Sample Matrix Spike

Batch ID: R375412

Method: SW8260B

Analysis Date: 02/25/2022 17:36

Prep Date:

Lab ID: B22021627-011FMS

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	4.8	0.50	5.0	0.0	97.0	79	120				
Bromobenzene	5.0	0.50	5.0	0.0	101.0	80	120				
Bromochloromethane	4.6	0.50	5.0	0.0	92.0	78	123				
Bromodichloromethane	4.9	0.50	5.0	0.0	97.0	79	125				
Bromoform	4.8	0.50	5.0	0.0	97.0	66	130				
Carbon tetrachloride	4.8	0.50	5.0	0.0	96.0	72	136				
Chlorobenzene	5.0	0.50	5.0	0.0	99.0	82	118				
Chlorodibromomethane	4.9	0.50	5.0	0.0	97.0	74	126				
Chloroethane	4.7	0.50	5.0	0.0	94.0	60	138				
Chloroform	4.5	0.50	5.0	0.0	90.0	79	124				
Chloromethane	4.7	0.50	5.0	0.0	93.0	50	139				
1,2-Dibromoethane	4.7	0.50	5.0	0.0	94.0	78	122				
2-Chlorotoluene	5.3	0.50	5.0	0.0	105.0	79	122				
Dibromomethane	4.8	0.50	5.0	0.0	96.0	79	123				
1,2-Dichlorobenzene	4.9	0.50	5.0	0.0	98.0	80	119				
4-Chlorotoluene	5.3	0.50	5.0	0.0	107.0	78	122				
1,3-Dichlorobenzene	5.0	0.50	5.0	0.0	100.0	80	119				
1,4-Dichlorobenzene	5.0	0.50	5.0	0.0	100.0	79	118				
Dichlorodifluoromethane	4.7	0.50	5.0	0.0	94.0	32	152				
1,1-Dichloroethane	4.9	0.50	5.0	0.0	97.0	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	94.0	71	131				
cis-1,2-Dichloroethene	4.7	0.50	5.0	0.0	95.0	78	123				
trans-1,2-Dichloroethene	4.7	0.50	5.0	0.0	94.0	75	124				
1,2-Dichloropropane	4.8	0.50	5.0	0.0	96.0	78	122				
1,3-Dichloropropane	4.7	0.50	5.0	0.0	93.0	80	119				
2,2-Dichloropropane	4.9	0.50	5.0	0.0	99.0	60	139				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 14

SampType: Sample Matrix Spike

Batch ID: R375412

Method: SW8260B

Analysis Date: 02/25/2022 17:36

Prep Date:

Lab ID: B22021627-011FMS

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	4.7	0.50	5.0	0.0	94.0	79	125				
cis-1,3-Dichloropropene	4.5	0.50	5.0	0.0	90.0	75	124				
trans-1,3-Dichloropropene	5.1	0.50	5.0	0.0	101.0	73	127				
Ethylbenzene	4.9	0.50	5.0	0.0	97.0	79	121				
Methyl tert-butyl ether (MTBE)	4.5	0.50	5.0	0.0	90.0	71	124				
Methyl ethyl ketone	48	10	50	0.0	95.0	56	143				
Methylene chloride	4.6	0.50	5.0	0.0	92.0	74	124				
Styrene	4.9	0.50	5.0	0.0	98.0	78	123				
1,1,1,2-Tetrachloroethane	4.8	0.50	5.0	0.0	97.0	78	124				
1,1,2,2-Tetrachloroethane	5.0	0.50	5.0	0.0	100.0	71	121				
Tetrachloroethene	5.0	0.50	5.0	0.0	100.0	74	129				
Toluene	5.0	0.50	5.0	0.0	99.0	80	121				
1,1,1-Trichloroethane	4.8	0.50	5.0	0.0	96.0	74	131				
1,1,2-Trichloroethane	4.8	0.50	5.0	0.0	97.0	80	119				
Trichloroethene	4.9	0.50	5.0	0.0	97.0	79	123				
Trichlorofluoromethane	4.9	0.50	5.0	0.0	98.0	65	141				
1,2,3-Trichloropropane	4.7	0.50	5.0	0.0	93.0	73	125				
Vinyl chloride	4.9	0.50	5.0	0.0	98.0	58	137				
m+p-Xylenes	9.5	0.50	10	0.0	95.0	80	121				
o-Xylene	4.9	0.50	5.0	0.0	98.0	78	122				
Xylenes, Total	14	0.50	15	0.0	96.0	79	121				
Surr: 1,2-Dichloroethane-d4	11	0.50	10	0.0	108.0	81	118				
Surr: Dibromofluoromethane	11	0.50	10	0.0	108.0	80	119				
Surr: p-Bromofluorobenzene	11	0.50	10	0.0	105.0	85	114				
Surr: Toluene-d8	11	0.50	10	0.0	111.0	89	112				

Associated Samples: B22021627-001F, B22021627-002A, B22021627-006F, B22021627-007A, B22021627-011F, B22021627-012A

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 15
Method: SW8260B
Lab ID: B22021627-011FMSD
SampType: Sample Matrix Spike Duplicate
Analysis Date: 02/25/2022 18:03
Units: ug/L

Batch ID: R375412
Prep Date:
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	100.0	79	120	4.8	3.3	20.0	
Bromobenzene	5.3	0.50	5.0	0.0	105.0	80	120	5.0	4.8	20.0	
Bromochloromethane	4.6	0.50	5.0	0.0	93.0	78	123	4.6	1.0	20.0	
Bromodichloromethane	5.2	0.50	5.0	0.0	103.0	79	125	4.9	6.0	20.0	
Bromoform	4.9	0.50	5.0	0.0	99.0	66	130	4.8	2.0	20.0	
Carbon tetrachloride	5.1	0.50	5.0	0.0	101.0	72	136	4.8	5.0	20.0	
Chlorobenzene	5.1	0.50	5.0	0.0	103.0	82	118	5.0	3.2	20.0	
Chlorodibromomethane	5.0	0.50	5.0	0.0	100.0	74	126	4.9	2.9	20.0	
Chloroethane	4.7	0.50	5.0	0.0	95.0	60	138	4.7	0.7	20.0	
Chloroform	4.7	0.50	5.0	0.0	94.0	79	124	4.5	3.5	20.0	
Chloromethane	4.9	0.50	5.0	0.0	98.0	50	139	4.7	5.4	20.0	
1,2-Dibromoethane	5.1	0.50	5.0	0.0	102.0	78	122	4.7	8.6	20.0	
2-Chlorotoluene	5.3	0.50	5.0	0.0	107.0	79	122	5.3	1.5	20.0	
Dibromomethane	5.1	0.50	5.0	0.0	101.0	79	123	4.8	5.8	20.0	
1,2-Dichlorobenzene	5.2	0.50	5.0	0.0	104.0	80	119	4.9	5.5	20.0	
4-Chlorotoluene	5.5	0.50	5.0	0.0	110.0	78	122	5.3	3.3	20.0	
1,3-Dichlorobenzene	5.3	0.50	5.0	0.0	107.0	80	119	5.0	6.6	20.0	
1,4-Dichlorobenzene	5.2	0.50	5.0	0.0	104.0	79	118	5.0	3.4	20.0	
Dichlorodifluoromethane	4.8	0.50	5.0	0.0	97.0	32	152	4.7	3.3	20.0	
1,1-Dichloroethane	5.0	0.50	5.0	0.0	99.0	77	125	4.9	2.0	20.0	
1,2-Dichloroethane	4.8	0.50	5.0	0.0	96.0	73	128	4.7	1.4	20.0	
1,1-Dichloroethene	4.9	0.50	5.0	0.0	98.0	71	131	4.7	4.0	20.0	
cis-1,2-Dichloroethene	5.0	0.50	5.0	0.0	99.0	78	123	4.7	4.3	20.0	
trans-1,2-Dichloroethene	4.8	0.50	5.0	0.0	97.0	75	124	4.7	3.4	20.0	
1,2-Dichloropropane	5.2	0.50	5.0	0.0	104.0	78	122	4.8	7.7	20.0	
1,3-Dichloropropane	4.9	0.50	5.0	0.0	98.0	80	119	4.7	5.7	20.0	
2,2-Dichloropropane	5.0	0.50	5.0	0.0	99.0	60	139	4.9	0.2	20.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 15
Method: SW8260B
Lab ID: B22021627-011FMSD
SampType: Sample Matrix Spike Duplicate
Analysis Date: 02/25/2022 18:03
Units: ug/L

Batch ID: R375412
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	4.8	0.50	5.0	0.0	97.0	79	125	4.7	3.0	20.0	
cis-1,3-Dichloropropene	4.8	0.50	5.0	0.0	96.0	75	124	4.5	6.3	20.0	
trans-1,3-Dichloropropene	5.2	0.50	5.0	0.0	104.0	73	127	5.1	2.2	20.0	
Ethylbenzene	5.0	0.50	5.0	0.0	100.0	79	121	4.9	3.0	20.0	
Methyl tert-butyl ether (MTBE)	4.9	0.50	5.0	0.0	98.0	71	124	4.5	8.0	20.0	
Methyl ethyl ketone	49	10	50	0.0	98.0	56	143	48	2.7	20.0	
Methylene chloride	4.7	0.50	5.0	0.0	94.0	74	124	4.6	2.2	20.0	
Styrene	5.1	0.50	5.0	0.0	101.0	78	123	4.9	3.3	20.0	
1,1,1,2-Tetrachloroethane	5.0	0.50	5.0	0.0	101.0	78	124	4.8	4.1	20.0	
1,1,2,2-Tetrachloroethane	5.4	0.50	5.0	0.0	108.0	71	121	5.0	8.0	20.0	
Tetrachloroethene	5.1	0.50	5.0	0.0	101.0	74	129	5.0	1.5	20.0	
Toluene	5.2	0.50	5.0	0.0	105.0	80	121	5.0	5.7	20.0	
1,1,1-Trichloroethane	5.1	0.50	5.0	0.0	102.0	74	131	4.8	5.8	20.0	
1,1,2-Trichloroethane	5.1	0.50	5.0	0.0	101.0	80	119	4.8	4.7	20.0	
Trichloroethene	5.0	0.50	5.0	0.0	100.0	79	123	4.9	2.9	20.0	
Trichlorofluoromethane	5.4	0.50	5.0	0.0	107.0	65	141	4.9	9.0	20.0	
1,2,3-Trichloropropane	5.1	0.50	5.0	0.0	102.0	73	125	4.7	9.1	20.0	
Vinyl chloride	5.1	0.50	5.0	0.0	102.0	58	137	4.9	4.5	20.0	
m+p-Xylenes	10	0.50	10	0.0	100.0	80	121	9.5	4.4	20.0	
o-Xylene	5.0	0.50	5.0	0.0	101.0	78	122	4.9	2.4	20.0	
Xylenes, Total	15	0.50	15	0.0	100.0	79	121	14	3.8	20.0	
Surr: 1,2-Dichloroethane-d4	11	0.50	10	0.0	110.0	81	118	0.0			
Surr: Dibromofluoromethane	11	0.50	10	0.0	107.0	80	119	0.0			
Surr: p-Bromofluorobenzene	11	0.50	10	0.0	105.0	85	114	0.0			
Surr: Toluene-d8	11	0.50	10	0.0	110.0	89	112	0.0			

Associated Samples: B22021627-001F, B22021627-002A, B22021627-006F, B22021627-007A, B22021627-011F, B22021627-012A

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 2

SampType: Continuing Calibration Verification Standard

Batch ID: R375412

Method: SW8260B

Analysis Date: 02/25/2022 10:46

Prep Date:

Lab ID: CCV022522_

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.2	0.50	5.0		104.0	80	120				
Bromobenzene	5.3	0.50	5.0		106.0	80	120				
Bromochloromethane	4.9	0.50	5.0		99.0	80	120				
Bromodichloromethane	5.3	0.50	5.0		105.0	80	120				
Bromoform	5.3	0.50	5.0		106.0	80	120				
Carbon tetrachloride	5.2	0.50	5.0		104.0	80	120				
Chlorobenzene	5.2	0.50	5.0		104.0	80	120				
Chlorodibromomethane	5.2	0.50	5.0		105.0	80	120				
Chloroethane	5.0	0.50	5.0		100.0	80	120				
Chloroform	5.0	0.50	5.0		100.0	80	120				
Chloromethane	5.0	0.50	5.0		100.0	80	120				
1,2-Dibromoethane	5.4	0.50	5.0		108.0	80	120				
2-Chlorotoluene	5.4	0.50	5.0		107.0	80	120				
Dibromomethane	5.3	0.50	5.0		105.0	80	120				
1,2-Dichlorobenzene	5.1	0.50	5.0		102.0	80	120				
4-Chlorotoluene	5.5	0.50	5.0		109.0	80	120				
1,3-Dichlorobenzene	5.2	0.50	5.0		104.0	80	120				
1,4-Dichlorobenzene	5.2	0.50	5.0		104.0	80	120				
Dichlorodifluoromethane	4.9	0.50	5.0		98.0	80	120				
1,1-Dichloroethane	5.2	0.50	5.0		105.0	80	120				
1,2-Dichloroethane	5.1	0.50	5.0		101.0	80	120				
1,1-Dichloroethene	5.1	0.50	5.0		102.0	80	120				
cis-1,2-Dichloroethene	5.1	0.50	5.0		102.0	80	120				
trans-1,2-Dichloroethene	4.9	0.50	5.0		99.0	80	120				
1,2-Dichloropropane	5.3	0.50	5.0		105.0	80	120				
1,3-Dichloropropane	5.3	0.50	5.0		107.0	80	120				
2,2-Dichloropropane	5.3	0.50	5.0		106.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 2

SampType: Continuing Calibration Verification Standard

Batch ID: R375412

Method: SW8260B

Analysis Date: 02/25/2022 10:46

Prep Date:

Lab ID: CCV022522_

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	5.3	0.50	5.0		105.0	80	120				
cis-1,3-Dichloropropene	5.1	0.50	5.0		103.0	80	120				
trans-1,3-Dichloropropene	5.4	0.50	5.0		107.0	80	120				
Ethylbenzene	5.1	0.50	5.0		102.0	80	120				
Methyl tert-butyl ether (MTBE)	5.0	0.50	5.0		99.0	80	120				
Methyl ethyl ketone	48	10	50		95.0	80	120				
Methylene chloride	5.1	0.50	5.0		102.0	80	120				
Styrene	5.1	0.50	5.0		101.0	80	120				
1,1,1,2-Tetrachloroethane	5.2	0.50	5.0		103.0	80	120				
1,1,2,2-Tetrachloroethane	5.5	0.50	5.0		111.0	80	120				
Tetrachloroethene	5.1	0.50	5.0		102.0	80	120				
Toluene	5.4	0.50	5.0		107.0	80	120				
1,1,1-Trichloroethane	5.2	0.50	5.0		104.0	80	120				
1,1,2-Trichloroethane	5.2	0.50	5.0		104.0	80	120				
Trichloroethene	5.1	0.50	5.0		103.0	80	120				
Trichlorofluoromethane	5.2	0.50	5.0		103.0	80	120				
1,2,3-Trichloropropane	5.5	0.50	5.0		109.0	80	120				
Vinyl chloride	4.9	0.50	5.0		98.0	80	120				
m+p-Xylenes	10	0.50	10		103.0	80	120				
o-Xylene	5.0	0.50	5.0		100.0	80	120				
Xylenes, Total	15	0.50	15		102.0	80	120				
Surr: 1,2-Dichloroethane-d4	11	0.50	10		113.0	80	120				
Surr: Dibromofluoromethane	11	0.50	10		108.0	80	120				
Surr: p-Bromofluorobenzene	11	0.50	10		108.0	80	120				
Surr: Toluene-d8	11	0.50	10		110.0	80	120				

Associated Samples: B22021627-001F, B22021627-002A, B22021627-006F, B22021627-007A, B22021627-011F, B22021627-012A

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 16

SampType: Continuing Calibration Verification Standard

Batch ID: R375412

Method: SW8260B

Analysis Date: 02/25/2022 18:58

Prep Date:

Lab ID: CCV022522_Closing

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		97.0	50	150				
Bromobenzene	5.0	0.50	5.0		100.0	50	150				
Bromochloromethane	4.7	0.50	5.0		94.0	50	150				
Bromodichloromethane	5.0	0.50	5.0		100.0	50	150				
Bromoform	4.8	0.50	5.0		96.0	50	150				
Carbon tetrachloride	5.5	0.50	5.0		109.0	50	150				
Chlorobenzene	5.0	0.50	5.0		100.0	50	150				
Chlorodibromomethane	5.1	0.50	5.0		102.0	50	150				
Chloroethane	5.0	0.50	5.0		100.0	50	150				
Chloroform	4.8	0.50	5.0		95.0	50	150				
Chloromethane	4.6	0.50	5.0		93.0	50	150				
1,2-Dibromoethane	5.0	0.50	5.0		100.0	50	150				
2-Chlorotoluene	5.0	0.50	5.0		100.0	50	150				
Dibromomethane	4.9	0.50	5.0		99.0	50	150				
1,2-Dichlorobenzene	4.9	0.50	5.0		99.0	50	150				
4-Chlorotoluene	5.1	0.50	5.0		102.0	50	150				
1,3-Dichlorobenzene	4.9	0.50	5.0		98.0	50	150				
1,4-Dichlorobenzene	4.8	0.50	5.0		96.0	50	150				
Dichlorodifluoromethane	5.1	0.50	5.0		101.0	50	150				
1,1-Dichloroethane	4.9	0.50	5.0		97.0	50	150				
1,2-Dichloroethane	4.8	0.50	5.0		97.0	50	150				
1,1-Dichloroethene	5.1	0.50	5.0		102.0	50	150				
cis-1,2-Dichloroethene	4.7	0.50	5.0		95.0	50	150				
trans-1,2-Dichloroethene	4.7	0.50	5.0		95.0	50	150				
1,2-Dichloropropane	4.9	0.50	5.0		97.0	50	150				
1,3-Dichloropropane	4.9	0.50	5.0		97.0	50	150				
2,2-Dichloropropane	5.2	0.50	5.0		104.0	50	150				

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VOA5975C.I_220225A: 16
Method: SW8260B
Lab ID: CCV022522_Closing

SampType: Continuing Calibration Verification Standard
Analysis Date: 02/25/2022 18:58
Units: ug/L

Batch ID: R375412
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	5.3	0.50	5.0		105.0	50	150				
cis-1,3-Dichloropropene	4.9	0.50	5.0		97.0	50	150				
trans-1,3-Dichloropropene	5.1	0.50	5.0		103.0	50	150				
Ethylbenzene	5.1	0.50	5.0		101.0	50	150				
Methyl tert-butyl ether (MTBE)	4.7	0.50	5.0		95.0	50	150				
Methyl ethyl ketone	41	10	50		81.0	50	150				
Methylene chloride	4.6	0.50	5.0		91.0	50	150				
Styrene	5.1	0.50	5.0		102.0	50	150				
1,1,1,2-Tetrachloroethane	5.1	0.50	5.0		103.0	50	150				
1,1,2,2-Tetrachloroethane	4.4	0.50	5.0		88.0	50	150				
Tetrachloroethene	5.3	0.50	5.0		106.0	50	150				
Toluene	5.2	0.50	5.0		105.0	50	150				
1,1,1-Trichloroethane	5.2	0.50	5.0		105.0	50	150				
1,1,2-Trichloroethane	4.8	0.50	5.0		96.0	50	150				
Trichloroethene	5.1	0.50	5.0		103.0	50	150				
Trichlorofluoromethane	5.6	0.50	5.0		112.0	50	150				
1,2,3-Trichloropropane	4.9	0.50	5.0		99.0	50	150				
Vinyl chloride	4.4	0.50	5.0		88.0	50	150				
m+p-Xylenes	10	0.50	10		103.0	50	150				
o-Xylene	5.0	0.50	5.0		101.0	50	150				
Xylenes, Total	15	0.50	15		102.0	50	150				
Surr: 1,2-Dichloroethane-d4	11	0.50	10		108.0	50	150				
Surr: Dibromofluoromethane	11	0.50	10		107.0	50	150				
Surr: p-Bromofluorobenzene	10	0.50	10		101.0	50	150				
Surr: Toluene-d8	11	0.50	10		111.0	50	150				

Associated Samples: B22021627-001F, B22021627-002A, B22021627-006F, B22021627-007A, B22021627-011F, B22021627-012A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: GECD.I_220225A: 2 **SampType:** Method Blank **Batch ID:** 164037
Method: SW8011 **Analysis Date:** 02/25/2022 13:16 **Prep Date:** 02/25/2022 09:49
Lab ID: MB-164037 **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		100.0	70	130				

Associated Samples: B22021627-001H, B22021627-004A, B22021627-006H, B22021627-009A, B22021627-011H, B22021627-014A

Run ID: Run Order: GECD.I_220225A: 3 **SampType:** Laboratory Control Sample **Batch ID:** 164037
Method: SW8011 **Analysis Date:** 02/25/2022 13:36 **Prep Date:** 02/25/2022 09:49
Lab ID: LCS-164037 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.25	0.010	0.25		98.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.098	0.020	0.10		98.0	70	130				

Associated Samples: B22021627-001H, B22021627-004A, B22021627-006H, B22021627-009A, B22021627-011H, B22021627-014A

Run ID: Run Order: GECD.I_220225A: 4 **SampType:** Laboratory Control Sample **Batch ID:** 164037
Method: SW8011 **Analysis Date:** 02/25/2022 13:56 **Prep Date:** 02/25/2022 09:49
Lab ID: LCS1-164037 **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		102.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.098	0.020	0.10		98.0	70	130				

Associated Samples: B22021627-001H, B22021627-004A, B22021627-006H, B22021627-009A, B22021627-011H, B22021627-014A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: GECD.I_220225A: 13 **SampType:** Sample Matrix Spike **Batch ID:** 164037
Method: SW8011 **Analysis Date:** 02/25/2022 17:14 **Prep Date:** 02/25/2022 09:50
Lab ID: B22021627-001HMS **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.25	0.010	0.24	0.0	102.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.10	0.020	0.098	0.0	102.0	70	130				

Associated Samples: B22021627-001H, B22021627-004A, B22021627-006H, B22021627-009A, B22021627-011H, B22021627-014A

Run ID: Run Order: GECD.I_220225A: 14 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 164037
Method: SW8011 **Analysis Date:** 02/25/2022 17:34 **Prep Date:** 02/25/2022 09:50
Lab ID: B22021627-001HMSD **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.25	0.010	0.24	0.0	105.0	60	140	0.25	2.1	20.0	
Surr: 1,1,1,2-Tetrachloroethane	0.10	0.020	0.097	0.0	107.0	70	130	0.0			

Associated Samples: B22021627-001H, B22021627-004A, B22021627-006H, B22021627-009A, B22021627-011H, B22021627-014A

Run ID: Run Order: GECD.I_220225A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 164037
Method: SW8011 **Analysis Date:** 02/25/2022 12:56 **Prep Date:** 02/25/2022 09:50
Lab ID: CK3-164037 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.10		111.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.10	0.020	0.10		101.0	80	120				

Associated Samples: B22021627-001H, B22021627-004A, B22021627-006H, B22021627-009A, B22021627-011H, B22021627-014A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: GECD.I_220225A: 15

SampType: Continuing Calibration Verification Standard

Batch ID: 164037

Method: SW8011

Analysis Date: 02/25/2022 18:13

Prep Date: 02/25/2022 09:50

Lab ID: CK5-164037

Units: ug/L

Prep Method: SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.45	0.010	0.40		112.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.46	0.020	0.40		115.0	80	120				

Associated Samples: B22021627-001H, B22021627-004A, B22021627-006H, B22021627-009A, B22021627-011H, B22021627-014A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VARIAN1_220225A: 4
Method: SW8015C
Lab ID: MBLK_0225VAR07r
SampType: Method Blank
Analysis Date: 02/25/2022 11:10
Units: ug/L

Batch ID: R375235
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	ND	10									
Total Purgeable Hydrocarbons	ND	10									
Surr: Trifluorotoluene	19	1.0	25		77.0	70	130				

Associated Samples: B22021627-001G, B22021627-003A, B22021627-006G, B22021627-008A, B22021627-011G, B22021627-013A

Run ID: Run Order: VARIAN1_220225A: 3
Method: SW8015C
Lab ID: LCS_0225VAR05r
SampType: Laboratory Control Sample
Analysis Date: 02/25/2022 10:02
Units: ug/L

Batch ID: R375235
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	173	20	170		102.0	78	122				
Total Purgeable Hydrocarbons	208	20	200		104.0	70	130				
Surr: Trifluorotoluene	23	1.0	25		91.0	70	130				

Associated Samples: B22021627-001G, B22021627-003A, B22021627-006G, B22021627-008A, B22021627-011G, B22021627-013A

Run ID: Run Order: VARIAN1_220225A: 11
Method: SW8015C
Lab ID: B22021627-001GMS
SampType: Sample Matrix Spike
Analysis Date: 02/25/2022 16:54
Units: ug/L

Batch ID: R375235
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	163	20	170	0.0	96.0	78	122				
Total Purgeable Hydrocarbons	203	20	200	13	95.0	70	130				
Surr: Trifluorotoluene	22	1.0	25	0.0	86.0	70	130				

Associated Samples: B22021627-001G, B22021627-003A, B22021627-006G, B22021627-008A, B22021627-011G, B22021627-013A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VARIAN1_220225A: 12
Method: SW8015C
Lab ID: B22021627-001GMSD
SampType: Sample Matrix Spike Duplicate
Analysis Date: 02/25/2022 17:28
Units: ug/L

Batch ID: R375235
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	169	20	170	0.0	100.0	78	122	163	4.0	20.0	
Total Purgeable Hydrocarbons	207	20	200	13	97.0	70	130	203	2.0	20.0	
Surr: Trifluorotoluene	22	1.0	25	0.0	87.0	70	130	0.0			

Associated Samples: B22021627-001G, B22021627-003A, B22021627-006G, B22021627-008A, B22021627-011G, B22021627-013A

Run ID: Run Order: GCFID-HP5-B_220228A: 5
Method: SW8015C
Lab ID: MB-164025
SampType: Method Blank
Analysis Date: 02/28/2022 14:11
Units: mg/L

Batch ID: 164025
Prep Date: 02/24/2022 16:20
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	0.21	0.0020	0.20		105.0	56	125				
Surr: n-Triacontane	0.097	0.0020	0.10		97.0	50	150				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: GCFID-HP5-B_220301A: 5 **SampType:** Method Blank **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 03/01/2022 15:48 **Prep Date:** 02/24/2022 16:20
Lab ID: MB-164025 **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		98.0	56	125				
Surr: n-Triacontane (SGT)	0.088	0.0020	0.10		88.0	50	150				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220228A: 3 **SampType:** Laboratory Control Sample **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 02/28/2022 12:45 **Prep Date:** 02/24/2022 16:20
Lab ID: LCS-164025 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	14	0.30	15		90.0	36	132				
Total Extractable Hydrocarbons	14	0.30	15		96.0	60	132				
Surr: o-Terphenyl	0.21	0.0020	0.20		104.0	56	125				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220228A: 4 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 02/28/2022 13:28 **Prep Date:** 02/24/2022 16:20
Lab ID: LCSD-164025 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	14	0.30	15		93.0	36	132	14	3.1	20.0	
Total Extractable Hydrocarbons	15	0.30	15		99.0	60	132	14	3.2	20.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: GCFID-HP5-B_220228A: 4 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 02/28/2022 13:28 **Prep Date:** 02/24/2022 16:20
Lab ID: LCSD-164025 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: o-Terphenyl	0.21	0.0020	0.20		105.0	56	125	0.0			

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220228A: 11 **SampType:** Laboratory Control Sample **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 02/28/2022 19:12 **Prep Date:** 02/24/2022 16:20
Lab ID: LCS-RRO-164025 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.3	0.30	5.0		106.0	41	113				
Surr: n-Triacontane	0.088	0.0020	0.10		88.0	50	150				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220228A: 12 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 02/28/2022 19:56 **Prep Date:** 02/24/2022 16:20
Lab ID: LCSD-RRO-164025 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.6	0.30	5.0		113.0	41	113	5.3	6.4	20.0	
Surr: n-Triacontane	0.095	0.0020	0.10		95.0	50	150	0.0			

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: GCFID-HP5-B_220301A: 3 **SampType:** Laboratory Control Sample **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 03/01/2022 14:23 **Prep Date:** 02/24/2022 16:20
Lab ID: LCS-164025 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	12	0.30	15		80.0	36	132				
Total Extractable Hydrocarbons (SGT)	13	0.30	15		85.0	60	132				
Surr: o-Terphenyl (SGT)	0.20	0.0020	0.20		98.0	56	125				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220301A: 4 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 03/01/2022 15:05 **Prep Date:** 02/24/2022 16:20
Lab ID: LCSD-164025 **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		76.0	36	132	12	5.1	20.0	
Total Extractable Hydrocarbons (SGT)	12	0.30	15		81.0	60	132	13	5.2	20.0	
Surr: o-Terphenyl (SGT)	0.18	0.0020	0.20		92.0	56	125	0.0			

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220301A: 10 **SampType:** Laboratory Control Sample **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 03/01/2022 20:47 **Prep Date:** 02/24/2022 16:20
Lab ID: LCS-RRO-164025 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	5.3	0.30	5.0		106.0	41	113				
Surr: n-Triacontane (SGT)	0.084	0.0020	0.10		84.0	50	150				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: GCFID-HP5-B_220301A: 11 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 03/01/2022 21:30 **Prep Date:** 02/24/2022 16:20
Lab ID: LCSD-RRO-164025 **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)	5.2	0.30	5.0		104.0	41	113	5.3	1.3	20.0	
Surr: n-Triacontane (SGT)	0.080	0.0020	0.10		80.0	50	150	0.0			

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220228A: 8 **SampType:** Sample Matrix Spike **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 02/28/2022 16:19 **Prep Date:** 02/24/2022 16:20
Lab ID: B22021627-001DMS **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	12	0.30	14	0.049	83.0	36	132				
Total Extractable Hydrocarbons	13	0.30	14	0.26	89.0	60	132				
Surr: o-Terphenyl	0.17	0.0020	0.19	0.0	88.0	56	125				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220228A: 10 **SampType:** Sample Matrix Spike **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 02/28/2022 18:29 **Prep Date:** 02/24/2022 16:21
Lab ID: B22021627-006DMS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.1	0.30	4.7	0.44	98.0	41	113				
Surr: n-Triacontane	0.087	0.0020	0.094	0.0	92.0	50	150				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: GCFID-HP5-B_220301A: 7 **SampType:** Sample Matrix Spike **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 03/01/2022 17:13 **Prep Date:** 02/24/2022 16:20
Lab ID: B22021627-001DMS **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	11	0.30	14	0.0	76.0	36	132				
Total Extractable Hydrocarbons (SGT)	11	0.30	14	0.083	80.0	60	132				
Surr: o-Terphenyl (SGT)	0.16	0.0020	0.19	0.0	85.0	56	125				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220301A: 9 **SampType:** Sample Matrix Spike **Batch ID:** 164025
Method: SW8015C **Analysis Date:** 03/01/2022 19:21 **Prep Date:** 02/24/2022 16:21
Lab ID: B22021627-006DMS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	4.8	0.30	4.7	0.35	94.0	41	113				
Surr: n-Triacontane (SGT)	0.075	0.0020	0.094	0.0	80.0	50	150				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: VARIAN1_220225A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375235
Method: SW8015C **Analysis Date:** 02/25/2022 09:28 **Prep Date:**
Lab ID: CCV_0225VAR04r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	176	20	168		105.0	80	120				
Total Purgeable Hydrocarbons	212	20	200		106.0	80	120				
Surr: Trifluorotoluene	22	1.0	25		88.0	80	120				

Associated Samples: B22021627-001G, B22021627-003A, B22021627-006G, B22021627-008A, B22021627-011G, B22021627-013A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: VARIAN1_220225A: 14 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375235
Method: SW8015C **Analysis Date:** 02/25/2022 19:11 **Prep Date:**
Lab ID: CCV_0225VAR21r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	177	20	168		105.0	80	120				
Total Purgeable Hydrocarbons	212	20	200		106.0	80	120				
Surr: Trifluorotoluene	23	1.0	25		91.0	80	120				

Associated Samples: B22021627-001G, B22021627-003A, B22021627-006G, B22021627-008A, B22021627-011G, B22021627-013A

Run ID: Run Order: GCFID-HP5-B_220228A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375375
Method: SW8015C **Analysis Date:** 02/28/2022 09:54 **Prep Date:**
Lab ID: CCV_0228HP504r-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	0.17	0.0020	0.20		87.0	80	120				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220228A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375375
Method: SW8015C **Analysis Date:** 02/28/2022 10:37 **Prep Date:**
Lab ID: CCV_0228HP505r **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		108.0	80	120				
Total Extractable Hydrocarbons	17	0.30	15		112.0	80	120				
Surr: o-Terphenyl	0.21	0.0020	0.20		103.0	80	120				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: GCFID-HP5-B_220228A: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375375
Method: SW8015C **Analysis Date:** 02/28/2022 21:22 **Prep Date:**
Lab ID: CCV_0228HP520r-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		97.0	80	120				
Surr: n-Triacontane	0.18	0.0020	0.20		89.0	80	120				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220228A: 14 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375375
Method: SW8015C **Analysis Date:** 02/28/2022 22:05 **Prep Date:**
Lab ID: CCV_0228HP521r **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		107.0	80	120				
Surr: o-Terphenyl	0.20	0.0020	0.20		99.0	80	120				

Associated Samples: B22021627-001D, B22021627-006D, B22021627-011D

Run ID: Run Order: GCFID-HP5-B_220301A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375439
Method: SW8015C **Analysis Date:** 03/01/2022 11:33 **Prep Date:**
Lab ID: CCV_0301HP504r-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	0.18	0.0020	0.20		90.0	80	120				

Associated Samples: B22021627-001D, B22021627-006D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: GCFID-HP5-B_220301A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375439
Method: SW8015C **Analysis Date:** 03/01/2022 12:16 **Prep Date:**
Lab ID: CCV_0301HP505r **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		106.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		109.0	80	120				
Surr: o-Terphenyl	0.20	0.0020	0.20		101.0	80	120				

Associated Samples: **B22021627-001D, B22021627-006D**

Run ID: Run Order: GCFID-HP5-B_220301A: 12 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375439
Method: SW8015C **Analysis Date:** 03/01/2022 22:56 **Prep Date:**
Lab ID: CCV_0301HP520r-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	0.18	0.0020	0.20		89.0	80	120				

Associated Samples: **B22021627-001D, B22021627-006D**

Run ID: Run Order: GCFID-HP5-B_220301A: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R375439
Method: SW8015C **Analysis Date:** 03/01/2022 23:40 **Prep Date:**
Lab ID: CCV_0301HP521r **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		90.0	80	120				
Total Extractable Hydrocarbons	14	0.30	15		93.0	80	120				
Surr: o-Terphenyl	0.18	0.0020	0.20		92.0	80	120				

Associated Samples: **B22021627-001D, B22021627-006D**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: FID-HEADSPACE_220301A: 4
Method: SW8015M
Lab ID: MBLK
SampType: Method Blank
Analysis Date: 03/01/2022 10:05
Units: mg/L

Batch ID: R375386
Prep Date:
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: B22021627-001I, B22021627-005A, B22021627-006I, B22021627-010A, B22021627-011I, B22021627-015A

Run ID: Run Order: FID-HEADSPACE_220301A: 2
Method: SW8015M
Lab ID: LCS
SampType: Laboratory Control Sample
Analysis Date: 03/01/2022 08:54
Units: ppm

Batch ID: R375386
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	100	2.0	100		101.0	85	115				

Associated Samples: B22021627-001I, B22021627-005A, B22021627-006I, B22021627-010A, B22021627-011I, B22021627-015A

Run ID: Run Order: FID-HEADSPACE_220301A: 3
Method: SW8015M
Lab ID: LCSD
SampType: Laboratory Control Sample Duplicate
Analysis Date: 03/01/2022 09:00
Units: ppm

Batch ID: R375386
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	100	2.0	100		102.0	85	115	100	1.0	20.0	

Associated Samples: B22021627-001I, B22021627-005A, B22021627-006I, B22021627-010A, B22021627-011I, B22021627-015A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: FID-HEADSPACE_220301A: 8
Method: SW8015M
Lab ID: B22021627-006IDUP
SampType: Sample Duplicate
Analysis Date: 03/01/2022 10:39
Units: mg/L

Batch ID: R375386
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	0.0034	0.0020			0.0			0.0032	4.2	20.0	

Associated Samples: B22021627-001I, B22021627-005A, B22021627-006I, B22021627-010A, B22021627-011I, B22021627-015A

Run ID: Run Order: FID-HEADSPACE_220301A: 1
Method: SW8015M
Lab ID: CCV
SampType: Continuing Calibration Verification Standard
Analysis Date: 03/01/2022 08:49
Units: ppm

Batch ID: R375386
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	98	2.0	100		98.0	85	115				

Associated Samples: B22021627-001I, B22021627-005A, B22021627-006I, B22021627-010A, B22021627-011I, B22021627-015A

Run ID: Run Order: FID-HEADSPACE_220301A: 12
Method: SW8015M
Lab ID: CCV
SampType: Continuing Calibration Verification Standard
Analysis Date: 03/01/2022 11:06
Units: ppm

Batch ID: R375386
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	98	2.0	100		98.0	85	115				

Associated Samples: B22021627-001I, B22021627-005A, B22021627-006I, B22021627-010A, B22021627-011I, B22021627-015A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 3

SampType: Method Blank

Batch ID: 164073

Method: SW8270C

Analysis Date: 03/03/2022 17:33

Prep Date: 02/28/2022 08:50

Lab ID: MB-164073

Units: ug/L

Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,4,5-Trichlorophenol	ND	5.0									
2,4,6-Trichlorophenol	ND	5.0									
2,4-Dichlorophenol	ND	5.0									
2,4-Dimethylphenol	ND	5.0									
2,4-Dinitrophenol	ND	10									
2,4-Dinitrotoluene	ND	5.0									
2,6-Dinitrotoluene	ND	5.0									
2-Chloronaphthalene	ND	5.0									
2-Chlorophenol	ND	5.0									
2-Nitrophenol	ND	5.0									
3,3'-Dichlorobenzidine	ND	10									
4,6-Dinitro-2-methylphenol	ND	10									
4-Bromophenyl phenyl ether	ND	5.0									
4-Chloro-3-methylphenol	ND	5.0									
4-Chlorophenol	ND	5.0									
4-Chlorophenyl phenyl ether	ND	5.0									
4-Nitrophenol	ND	10									
Azobenzene	ND	5.0									
bis(-2-chloroethoxy)Methane	ND	5.0									
bis(-2-chloroethyl)Ether	ND	5.0									
bis(2-chloroisopropyl)Ether	ND	5.0									
bis(2-ethylhexyl)Phthalate	ND	5.0									
Butylbenzylphthalate	ND	5.0									



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 3

SampType: Method Blank

Batch ID: 164073

Method: SW8270C

Analysis Date: 03/03/2022 17:33

Prep Date: 02/28/2022 08:50

Lab ID: MB-164073

Units: ug/L

Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	ND	5.0									
Dimethyl phthalate	ND	5.0									
Di-n-butyl phthalate	ND	5.0									
Di-n-octyl phthalate	ND	5.0									
Hexachlorobenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Hexachlorocyclopentadiene	ND	5.0									
Hexachloroethane	ND	5.0									
Isophorone	ND	5.0									
m+p-Cresols	ND	5.0									
Nitrobenzene	ND	5.0									
n-Nitrosodimethylamine	ND	5.0									
n-Nitroso-di-n-propylamine	ND	5.0									
n-Nitrosodiphenylamine	ND	10									
o-Cresol	ND	5.0									
Pentachlorophenol	ND	10									
Phenol	ND	5.0									
Pyridine	ND	5.0									
Surr: 2,4,6-Tribromophenol	135	5.0	200		68.0	25	140				
Surr: 2-Fluorobiphenyl	52	5.0	100		52.0	28	107				
Surr: 2-Fluorophenol	64	5.0	200		32.0	10	75				
Surr: Nitrobenzene-d5	62	5.0	100		62.0	32	94				
Surr: Phenol-d5	70	5.0	200		35.0	10	65				
Surr: Terphenyl-d14	102	5.0	100		102.0	32	122				

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 4

SampType: Laboratory Control Sample

Batch ID: 164073

Method: SW8270C

Analysis Date: 03/03/2022 18:05

Prep Date: 02/28/2022 08:50

Lab ID: LCS-164073

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	67	10	100		67.0	29	116				
1,2-Dichlorobenzene	60	10	100		60.0	32	111				
1,3-Dichlorobenzene	58	10	100		58.0	28	110				
1,4-Dichlorobenzene	54	10	100		54.0	29	112				
2,4,5-Trichlorophenol	83	10	100		83.0	53	123				
2,4,6-Trichlorophenol	86	10	100		86.0	50	125				
2,4-Dichlorophenol	67	10	100		67.0	47	121				
2,4-Dimethylphenol	75	10	100		75.0	31	124				
2,4-Dinitrophenol	100	10	100		100.0	23	142				
2,4-Dinitrotoluene	100	10	100		100.0	57	128				
2,6-Dinitrotoluene	87	10	100		87.0	50	118				
2-Chloronaphthalene	91	10	100		91.0	40	116				
2-Chlorophenol	63	10	100		63.0	38	117				
2-Nitrophenol	78	10	100		78.0	47	123				
3,3'-Dichlorobenzidine	64	10	100		64.0	27	129				
4,6-Dinitro-2-methylphenol	90	10	100		90.0	44	137				
4-Bromophenyl phenyl ether	92	10	100		92.0	55	124				
4-Chloro-3-methylphenol	87	10	100		87.0	52	119				
4-Chlorophenol	74	10	100		74.0	41	81				
4-Chlorophenyl phenyl ether	103	10	100		103.0	53	121				
4-Nitrophenol	36	10	100		36.0	15	36				
Azobenzene	76	10	100		76.0	61	116				
bis(-2-chloroethoxy)Methane	82	10	100		82.0	48	120				
bis(-2-chloroethyl)Ether	70	10	100		70.0	43	118				
bis(2-chloroisopropyl)Ether	62	10	100		62.0	37	130				
bis(2-ethylhexyl)Phthalate	88	10	100		88.0	55	135				
Butylbenzylphthalate	83	10	100		83.0	53	134				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 4
Method: SW8270C
Lab ID: LCS-164073

SampType: Laboratory Control Sample
Analysis Date: 03/03/2022 18:05
Units: ug/L

Batch ID: 164073
Prep Date: 02/28/2022 08:50
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	103	10	100		103.0	56	125				
Dimethyl phthalate	103	10	100		103.0	45	127				
Di-n-butyl phthalate	91	10	100		91.0	59	127				
Di-n-octyl phthalate	71	10	100		71.0	51	140				
Hexachlorobenzene	88	10	100		88.0	53	125				
Hexachlorobutadiene	60	10	100		60.0	22	124				
Hexachlorocyclopentadiene	73	10	100		73.0	39	91				
Hexachloroethane	52	10	100		52.0	21	115				
Isophorone	85	10	100		85.0	42	124				
m+p-Cresols	68	10	100		68.0	29	110				
Nitrobenzene	68	10	100		68.0	45	121				
n-Nitrosodimethylamine	56	10	100		56.0	20	45				S
n-Nitroso-di-n-propylamine	89	10	100		89.0	49	119				
n-Nitrosodiphenylamine	94	10	100		94.0	51	123				
o-Cresol	72	10	100		72.0	30	117				
Pentachlorophenol	90	10	100		90.0	35	138				
Phenol	50	10	100		50.0	37	75				
Pyridine	40	10	100		40.0	16	45				
Surr: 2,4,6-Tribromophenol	161	10	200		81.0	43	140				
Surr: 2-Fluorobiphenyl	71	10	100		71.0	44	119				
Surr: 2-Fluorophenol	78	10	200		39.0	19	119				
Surr: Nitrobenzene-d5	70	10	100		70.0	44	120				
Surr: Phenol-d5	87	10	200		44.0	10	65				
Surr: Terphenyl-d14	100	10	100		100.0	50	134				

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 5
Method: SW8270C
Lab ID: LCSD-164073

SampType: Laboratory Control Sample Duplicate
Analysis Date: 03/03/2022 18:38
Units: ug/L

Batch ID: 164073
Prep Date: 02/28/2022 08:50
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	81	10	100		81.0	29	116	67	19.0	20.0	
1,2-Dichlorobenzene	73	10	100		73.0	32	111	60	19.0	20.0	
1,3-Dichlorobenzene	70	10	100		70.0	28	110	58	19.0	20.0	
1,4-Dichlorobenzene	69	10	100		69.0	29	112	54	24.0	20.0	R
2,4,5-Trichlorophenol	89	10	100		89.0	53	123	83	6.3	20.0	
2,4,6-Trichlorophenol	90	10	100		90.0	50	125	86	5.4	20.0	
2,4-Dichlorophenol	79	10	100		79.0	47	121	67	17.0	20.0	
2,4-Dimethylphenol	90	10	100		90.0	31	124	75	17.0	20.0	
2,4-Dinitrophenol	101	10	100		101.0	23	142	100	1.4	20.0	
2,4-Dinitrotoluene	104	10	100		104.0	57	128	100	3.3	20.0	
2,6-Dinitrotoluene	99	10	100		99.0	50	118	87	13.0	20.0	
2-Chloronaphthalene	98	10	100		98.0	40	116	91	7.5	20.0	
2-Chlorophenol	73	10	100		73.0	38	117	63	15.0	20.0	
2-Nitrophenol	88	10	100		88.0	47	123	78	13.0	20.0	
3,3'-Dichlorobenzidine	67	10	100		67.0	27	129	64	4.8	20.0	
4,6-Dinitro-2-methylphenol	92	10	100		92.0	44	137	90	1.7	20.0	
4-Bromophenyl phenyl ether	96	10	100		96.0	55	124	92	4.2	20.0	
4-Chloro-3-methylphenol	93	10	100		93.0	52	119	87	6.3	20.0	
4-Chlorophenol	87	10	100		87.0	41	81	74	16.0	20.0	S
4-Chlorophenyl phenyl ether	112	10	100		112.0	53	121	103	7.7	20.0	
4-Nitrophenol	39	10	100		39.0	15	36	36	8.5	20.0	S
Azobenzene	87	10	100		87.0	61	116	76	13.0	20.0	
bis(-2-chloroethoxy)Methane	82	10	100		82.0	48	120	82	0.8	20.0	
bis(-2-chloroethyl)Ether	76	10	100		76.0	43	118	70	9.1	20.0	
bis(2-chloroisopropyl)Ether	69	10	100		69.0	37	130	62	12.0	20.0	
bis(2-ethylhexyl)Phthalate	90	10	100		90.0	55	135	88	1.7	20.0	
Butylbenzylphthalate	90	10	100		90.0	53	134	83	7.4	20.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 5
Method: SW8270C
Lab ID: LCSD-164073

SampType: Laboratory Control Sample Duplicate
Analysis Date: 03/03/2022 18:38
Units: ug/L

Batch ID: 164073
Prep Date: 02/28/2022 08:50
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	114	10	100		114.0	56	125	103	9.2	20.0	
Dimethyl phthalate	111	10	100		111.0	45	127	103	7.8	20.0	
Di-n-butyl phthalate	94	10	100		94.0	59	127	91	3.0	20.0	
Di-n-octyl phthalate	76	10	100		76.0	51	140	71	7.5	20.0	
Hexachlorobenzene	90	10	100		90.0	53	125	88	2.5	20.0	
Hexachlorobutadiene	71	10	100		71.0	22	124	60	17.0	20.0	
Hexachlorocyclopentadiene	81	10	100		81.0	39	91	73	11.0	20.0	
Hexachloroethane	61	10	100		61.0	21	115	52	16.0	20.0	
Isophorone	98	10	100		98.0	42	124	85	14.0	20.0	
m+p-Cresols	76	10	100		76.0	29	110	68	11.0	20.0	
Nitrobenzene	82	10	100		82.0	45	121	68	19.0	20.0	
n-Nitrosodimethylamine	60	10	100		60.0	20	45	56	7.5	20.0	S
n-Nitroso-di-n-propylamine	101	10	100		101.0	49	119	89	13.0	20.0	
n-Nitrosodiphenylamine	95	10	100		95.0	51	123	94	0.8	20.0	
o-Cresol	77	10	100		77.0	30	117	72	6.9	20.0	
Pentachlorophenol	99	10	100		99.0	35	138	90	9.8	20.0	
Phenol	56	10	100		56.0	37	75	50	11.0	20.0	
Pyridine	42	10	100		42.0	16	45	40	6.3	20.0	
Surr: 2,4,6-Tribromophenol	162	10	200		81.0	43	140	0.0	0.0		
Surr: 2-Fluorobiphenyl	98	10	100		98.0	44	119	0.0	0.0		
Surr: 2-Fluorophenol	90	10	200		45.0	19	119	0.0	0.0		
Surr: Nitrobenzene-d5	76	10	100		76.0	44	120	0.0	0.0		
Surr: Phenol-d5	97	10	200		49.0	10	65	0.0	0.0		
Surr: Terphenyl-d14	101	10	100		101.0	50	134	0.0	0.0		

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 9

SampType: Sample Matrix Spike

Batch ID: 164073

Method: SW8270C

Analysis Date: 03/03/2022 20:47

Prep Date: 02/28/2022 08:51

Lab ID: B22021627-011CMS

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	95	0.0	61.0	29	116				
1,2-Dichlorobenzene	55	10	95	0.0	58.0	32	111				
1,3-Dichlorobenzene	52	10	95	0.0	54.0	28	110				
1,4-Dichlorobenzene	49	10	95	0.0	51.0	29	112				
2,4,5-Trichlorophenol	84	10	95	0.0	88.0	53	123				
2,4,6-Trichlorophenol	84	10	95	0.0	88.0	50	125				
2,4-Dichlorophenol	70	10	95	0.0	73.0	47	121				
2,4-Dimethylphenol	75	10	95	0.0	79.0	31	124				
2,4-Dinitrophenol	95	10	95	0.0	100.0	23	142				
2,4-Dinitrotoluene	92	10	95	0.0	97.0	57	128				
2,6-Dinitrotoluene	77	10	95	0.0	81.0	50	118				
2-Chloronaphthalene	86	10	95	0.0	91.0	40	116				
2-Chlorophenol	65	10	95	0.0	68.0	38	117				
2-Nitrophenol	76	10	95	0.0	79.0	47	123				
3,3'-Dichlorobenzidine	66	10	95	0.0	70.0	27	129				
4,6-Dinitro-2-methylphenol	82	10	95	0.0	86.0	44	137				
4-Bromophenyl phenyl ether	85	10	95	0.0	90.0	55	124				
4-Chloro-3-methylphenol	78	10	95	0.0	82.0	52	119				
4-Chlorophenol	70	10	95	0.0	74.0	41	81				
4-Chlorophenyl phenyl ether	95	10	95	0.0	100.0	53	121				
4-Nitrophenol	35	10	95	0.0	37.0	15	36				S
Azobenzene	76	10	95	0.0	80.0	61	116				
bis(-2-chloroethoxy)Methane	75	10	95	0.0	79.0	48	120				
bis(-2-chloroethyl)Ether	69	10	95	0.0	72.0	43	118				
bis(2-chloroisopropyl)Ether	62	10	95	0.0	65.0	37	130				
bis(2-ethylhexyl)Phthalate	89	10	95	0.0	93.0	55	135				
Butylbenzylphthalate	88	10	95	0.0	92.0	53	134				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 9

SampType: Sample Matrix Spike

Batch ID: 164073

Method: SW8270C

Analysis Date: 03/03/2022 20:47

Prep Date: 02/28/2022 08:51

Lab ID: B22021627-011CMS

Units: ug/L

Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	101	10	95	0.0	106.0	56	125				
Dimethyl phthalate	100	10	95	0.0	105.0	45	127				
Di-n-butyl phthalate	89	10	95	0.0	94.0	59	127				
Di-n-octyl phthalate	75	10	95	0.0	79.0	51	140				
Hexachlorobenzene	83	10	95	0.0	87.0	53	125				
Hexachlorobutadiene	53	10	95	0.0	56.0	22	124				
Hexachlorocyclopentadiene	59	10	95	0.0	62.0	39	91				
Hexachloroethane	45	10	95	0.0	48.0	21	115				
Isophorone	85	10	95	0.0	89.0	42	124				
m+p-Cresols	67	10	95	0.0	70.0	29	110				
Nitrobenzene	69	10	95	0.0	72.0	45	121				
n-Nitrosodimethylamine	55	10	95	0.0	57.0	20	45				S
n-Nitroso-di-n-propylamine	90	10	95	0.0	94.0	49	119				
n-Nitrosodiphenylamine	89	10	95	0.0	94.0	51	123				
o-Cresol	72	10	95	0.0	76.0	30	117				
Pentachlorophenol	91	10	95	0.0	96.0	35	138				
Phenol	46	10	95	0.0	48.0	37	75				
Pyridine	33	10	95	0.0	34.0	16	45				
Surr: 2,4,6-Tribromophenol	152	10	190	0.0	80.0	43	140				
Surr: 2-Fluorobiphenyl	74	10	95	0.0	78.0	44	119				
Surr: 2-Fluorophenol	72	10	190	0.0	38.0	19	119				
Surr: Nitrobenzene-d5	68	10	95	0.0	71.0	44	120				
Surr: Phenol-d5	78	10	190	0.0	41.0	10	65				
Surr: Terphenyl-d14	92	10	95	0.0	97.0	50	134				

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 11

SampType: Sample Matrix Spike

Batch ID: 164073

Method: SW8270C

Analysis Date: 03/03/2022 21:52

Prep Date: 02/28/2022 08:51

Lab ID: B22021684-001CMS

Units: ug/L

Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	44	10	100	0.0	44.0	29	116				
1,2-Dichlorobenzene	47	10	100	0.0	47.0	32	111				
1,3-Dichlorobenzene	42	10	100	0.0	42.0	28	110				
1,4-Dichlorobenzene	42	10	100	0.0	42.0	29	112				
2,4,5-Trichlorophenol	80	10	100	0.0	80.0	53	123				
2,4,6-Trichlorophenol	77	10	100	0.0	77.0	50	125				
2,4-Dichlorophenol	83	10	100	0.0	83.0	47	121				
2,4-Dimethylphenol	84	10	100	0.0	84.0	31	124				
2,4-Dinitrophenol	69	20	100	0.0	69.0	23	142				
2,4-Dinitrotoluene	84	10	100	0.0	84.0	57	128				
2,6-Dinitrotoluene	72	10	100	0.0	72.0	50	118				
2-Chloronaphthalene	56	10	100	0.0	56.0	40	116				
2-Chlorophenol	79	10	100	0.0	79.0	38	117				
2-Nitrophenol	81	10	100	0.0	81.0	47	123				
3,3'-Dichlorobenzidine	37	20	100	0.0	37.0	27	129				
4,6-Dinitro-2-methylphenol	50	20	100	0.0	50.0	44	137				
4-Bromophenyl phenyl ether	45	10	100	0.0	45.0	55	124				S
4-Chloro-3-methylphenol	91	10	100	0.0	91.0	52	119				
4-Chlorophenol	81	10	100	0.0	81.0	41	81				
4-Chlorophenyl phenyl ether	44	10	100	0.0	44.0	53	121				S
4-Nitrophenol	59	20	100	0.0	59.0	15	36				S
Azobenzene	52	10	100	0.0	52.0	61	116				S
bis(-2-chloroethoxy)Methane	82	10	100	0.0	82.0	48	120				
bis(-2-chloroethyl)Ether	64	10	100	0.0	64.0	43	118				
bis(2-chloroisopropyl)Ether	56	10	100	0.0	56.0	37	130				
bis(2-ethylhexyl)Phthalate	55	10	100	0.0	55.0	55	135				
Butylbenzylphthalate	68	10	100	0.0	68.0	53	134				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 11
Method: SW8270C
Lab ID: B22021684-001CMS

SampType: Sample Matrix Spike
Analysis Date: 03/03/2022 21:52
Units: ug/L

Batch ID: 164073
Prep Date: 02/28/2022 08:51
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	75	10	100	0.0	75.0	56	125				
Dimethyl phthalate	85	10	100	0.0	85.0	45	127				
Di-n-butyl phthalate	60	10	100	0.0	60.0	59	127				
Di-n-octyl phthalate	36	10	100	0.0	36.0	51	140				S
Hexachlorobenzene	39	10	100	0.0	39.0	53	125				S
Hexachlorobutadiene	30	10	100	0.0	30.0	22	124				
Hexachlorocyclopentadiene	16	10	100	0.0	16.0	39	91				S
Hexachloroethane	37	10	100	0.0	37.0	21	115				
Isophorone	78	10	100	0.0	78.0	42	124				
m+p-Cresols	191	10	100	72	119.0	29	110				S
Nitrobenzene	74	10	100	0.0	74.0	45	121				
n-Nitrosodimethylamine	58	10	100	0.0	58.0	20	45				S
n-Nitroso-di-n-propylamine	94	10	100	0.0	94.0	49	119				
n-Nitrosodiphenylamine	63	20	100	0.0	63.0	51	123				
o-Cresol	77	10	100	0.0	77.0	30	117				
Pentachlorophenol	86	20	100	0.0	86.0	35	138				
Phenol	91	10	100	20	71.0	37	75				
Pyridine	39	10	100	0.0	39.0	16	45				
Surr: 2,4,6-Tribromophenol	146	10	200	0.0	73.0	43	140				
Surr: 2-Fluorobiphenyl	44	10	100	0.0	44.0	44	119				
Surr: 2-Fluorophenol	107	10	200	0.0	54.0	19	119				
Surr: Nitrobenzene-d5	69	10	100	0.0	69.0	44	120				
Surr: Phenol-d5	99	10	200	0.0	50.0	10	65				
Surr: Terphenyl-d14	78	10	100	0.0	78.0	50	134				

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 2

SampType: Continuing Calibration Verification Standard

Batch ID: R375601

Method: SW8270C

Analysis Date: 03/03/2022 17:00

Prep Date:

Lab ID: 03-Mar-22_CCv_2

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		103.0	80	120				
1,2-Dichlorobenzene	83	10	75		110.0	80	120				
1,3-Dichlorobenzene	82	10	75		109.0	80	120				
1,4-Dichlorobenzene	78	10	75		104.0	80	120				
2,4,5-Trichlorophenol	73	10	75		98.0	80	120				
2,4,6-Trichlorophenol	74	10	75		99.0	80	120				
2,4-Dichlorophenol	67	10	75		89.0	80	120				
2,4-Dimethylphenol	73	10	75		97.0	80	120				
2,4-Dinitrophenol	93	10	75		123.0	80	120				S
2,4-Dinitrotoluene	90	10	75		120.0	80	120				
2,6-Dinitrotoluene	77	10	75		102.0	80	120				
2-Chloronaphthalene	92	10	75		123.0	80	120				S
2-Chlorophenol	69	10	75		92.0	80	120				
2-Nitrophenol	76	10	75		102.0	80	120				
3,3'-Dichlorobenzidine	72	10	75		96.0	80	120				
4,6-Dinitro-2-methylphenol	83	10	75		111.0	80	120				
4-Bromophenyl phenyl ether	77	10	75		102.0	80	120				
4-Chloro-3-methylphenol	73	10	75		97.0	80	120				
4-Chlorophenol	82	10	75		109.0	80	120				
4-Chlorophenyl phenyl ether	86	10	75		115.0	80	120				
4-Nitrophenol	71	10	75		95.0	80	120				
Azobenzene	76	10	75		101.0	80	120				
bis(-2-chloroethoxy)Methane	76	10	75		101.0	80	120				
bis(-2-chloroethyl)Ether	76	10	75		101.0	80	120				
bis(2-chloroisopropyl)Ether	78	10	75		104.0	80	120				
bis(2-ethylhexyl)Phthalate	76	10	75		101.0	80	120				
Butylbenzylphthalate	76	10	75		101.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 2

SampType: Continuing Calibration Verification Standard

Batch ID: R375601

Method: SW8270C

Analysis Date: 03/03/2022 17:00

Prep Date:

Lab ID: 03-Mar-22_CCV_2

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	79	10	75		105.0	80	120				
Dimethyl phthalate	85	10	75		114.0	80	120				
Di-n-butyl phthalate	71	10	75		95.0	80	120				
Di-n-octyl phthalate	66	10	75		88.0	80	120				
Hexachlorobenzene	79	10	75		105.0	80	120				
Hexachlorobutadiene	77	10	75		102.0	80	120				
Hexachlorocyclopentadiene	84	10	75		113.0	80	120				
Hexachloroethane	74	10	75		98.0	80	120				
Isophorone	87	10	75		116.0	80	120				
m+p-Cresols	74	10	75		99.0	80	120				
Nitrobenzene	69	10	75		92.0	80	120				
n-Nitrosodimethylamine	85	10	75		114.0	80	120				
n-Nitroso-di-n-propylamine	81	10	75		108.0	80	120				
n-Nitrosodiphenylamine	79	10	75		105.0	80	120				
o-Cresol	77	10	75		103.0	80	120				
Pentachlorophenol	71	10	75		95.0	80	120				
Phenol	86	10	75		114.0	80	120				
Pyridine	89	10	75		119.0	80	120				
Surr: 2,4,6-Tribromophenol	72	10	75		96.0	80	120				
Surr: 2-Fluorobiphenyl	82	10	75		109.0	80	120				
Surr: 2-Fluorophenol	75	10	75		101.0	80	120				
Surr: Nitrobenzene-d5	69	10	75		93.0	80	120				
Surr: Phenol-d5	84	10	75		112.0	80	120				
Surr: Terphenyl-d14	79	10	75		106.0	80	120				

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 17

SampType: Continuing Calibration Verification Standard

Batch ID: R375601

Method: SW8270C

Analysis Date: 03/04/2022 01:06

Prep Date:

Lab ID: 03-Mar-22_CCV_17

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	82	10	75		109.0	50	150				
1,2-Dichlorobenzene	81	10	75		108.0	50	150				
1,3-Dichlorobenzene	78	10	75		104.0	50	150				
1,4-Dichlorobenzene	77	10	75		103.0	50	150				
2,4,5-Trichlorophenol	78	10	75		103.0	50	150				
2,4,6-Trichlorophenol	83	10	75		110.0	50	150				
2,4-Dichlorophenol	79	10	75		105.0	50	150				
2,4-Dimethylphenol	81	10	75		109.0	50	150				
2,4-Dinitrophenol	81	10	75		109.0	50	150				
2,4-Dinitrotoluene	79	10	75		105.0	50	150				
2,6-Dinitrotoluene	83	10	75		110.0	50	150				
2-Chloronaphthalene	78	10	75		103.0	50	150				
2-Chlorophenol	80	10	75		107.0	50	150				
2-Nitrophenol	77	10	75		102.0	50	150				
3,3'-Dichlorobenzidine	65	10	75		87.0	50	150				
4,6-Dinitro-2-methylphenol	79	10	75		105.0	50	150				
4-Bromophenyl phenyl ether	80	10	75		107.0	50	150				
4-Chloro-3-methylphenol	81	10	75		108.0	50	150				
4-Chlorophenol	85	10	75		113.0	50	150				
4-Chlorophenyl phenyl ether	84	10	75		112.0	50	150				
4-Nitrophenol	82	10	75		109.0	50	150				
Azobenzene	81	10	75		107.0	50	150				
bis(-2-chloroethoxy)Methane	74	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	78	10	75		104.0	50	150				
Butylbenzylphthalate	78	10	75		104.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Run ID: Run Order: SV5973N.I_220303A: 17

SampType: Continuing Calibration Verification Standard

Batch ID: R375601

Method: SW8270C

Analysis Date: 03/04/2022 01:06

Prep Date:

Lab ID: 03-Mar-22_CCV_17

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	88	10	75		117.0	50	150				
Dimethyl phthalate	89	10	75		119.0	50	150				
Di-n-butyl phthalate	84	10	75		112.0	50	150				
Di-n-octyl phthalate	65	10	75		87.0	50	150				
Hexachlorobenzene	76	10	75		101.0	50	150				
Hexachlorobutadiene	80	10	75		107.0	50	150				
Hexachlorocyclopentadiene	79	10	75		105.0	50	150				
Hexachloroethane	75	10	75		101.0	50	150				
Isophorone	83	10	75		110.0	50	150				
m+p-Cresols	77	10	75		102.0	50	150				
Nitrobenzene	81	10	75		108.0	50	150				
n-Nitrosodimethylamine	88	10	75		118.0	50	150				
n-Nitroso-di-n-propylamine	81	10	75		108.0	50	150				
n-Nitrosodiphenylamine	83	10	75		110.0	50	150				
o-Cresol	79	10	75		105.0	50	150				
Pentachlorophenol	83	10	75		110.0	50	150				
Phenol	82	10	75		109.0	50	150				
Pyridine	74	10	75		98.0	50	150				
Surr: 2,4,6-Tribromophenol	80	10	75		107.0	50	150				
Surr: 2-Fluorobiphenyl	79	10	75		105.0	50	150				
Surr: 2-Fluorophenol	80	10	75		107.0	50	150				
Surr: Nitrobenzene-d5	78	10	75		104.0	50	150				
Surr: Phenol-d5	87	10	75		116.0	50	150				
Surr: Terphenyl-d14	77	10	75		103.0	50	150				

Associated Samples: B22021627-001C, B22021627-006C, B22021627-011C

Analytical QC Exceptions Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22021627
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

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	164029	001B, 006B, 011B	SD	B22021627-001BDIL	3/1/2022	16:18	Lead					10.0	N
SW8270C	Semi-Volatile Organic Compounds, Extended List	164073	001C, 006C, 011C	LCS-DOD	LCS-164073	3/3/2022	18:05	n-Nitrosodimethylamine	56.0	20	45			S
				LCSD-DOD	LCSD-164073	3/3/2022	18:38	1,4-Dichlorobenzene	69.0	29	112	24	20.0	R
								4-Chlorophenol	87.0	41	81	16	20.0	S
								4-Nitrophenol	39.0	15	36	8.5	20.0	S
								n-Nitrosodimethylamine	60.0	20	45	7.5	20.0	S
				MS-DOD	B22021627-011CMS	3/3/2022	20:47	4-Nitrophenol	37.0	15	36			S
								n-Nitrosodimethylamine	57.0	20	45			S
				MS-DOD	B22021684-001CMS	3/3/2022	21:52	4-Bromophenyl phenyl ether	45.0	55	124			S
								4-Chlorophenyl phenyl ether	44.0	53	121			S
								4-Nitrophenol	59.0	15	36			S
								Azobenzene	52.0	61	116			S
								Di-n-octyl phthalate	36.0	51	140			S
								Hexachlorobenzene	39.0	53	125			S
								Hexachlorocyclopentadiene	16.0	39	91			S
								m+p-Cresols	119.0	29	110			S
								n-Nitrosodimethylamine	58.0	20	45			S
		R375601	001C, 006C, 011C	CCV	03-Mar-22_CCV_2	3/3/2022	17:00	2,4-Dinitrophenol	123.0	80	120			S
								2-Chloronaphthalene	123.0	80	120			S



Preparation and Analysis Dates Report

Work Order: B22021627

Client: AECOM - Honolulu

Project Name: CV18F0126, 60571032.02.46.01

Report Date: 3/08/2022

Lab ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Method	Prep Date	Prep Batch	Analysis Method	Analysis Date
001B	ERH2565 (RHMW2254-01 Bailer)	02/22/2022 13:20	Ground Water	Metals by ICP-MS, Total		SW3010A	02/25/2022 08:25	164029	SW6020	03/01/2022 16:12
001C	ERH2565 (RHMW2254-01 Bailer)	02/22/2022 13:20	Ground Water	Low Level PAH by 8270C SIM		SW3510C	02/28/2022 08:50	164073	SW8270CSIM	03/03/2022 18:24
				Semi-Volatile Organic Compounds, Extended List		SW3510C	02/28/2022 08:50	164073	SW8270C	03/03/2022 19:10
001D	ERH2565 (RHMW2254-01 Bailer)	02/22/2022 13:20	Ground Water	Diesel Range Organics		SW3520C	02/24/2022 16:20	164025	SW8015C	02/28/2022 15:37
						SW3520C	02/24/2022 16:20	164025	SW8015C	03/01/2022 16:30
001H	ERH2565 (RHMW2254-01 Bailer)	02/22/2022 13:20	Ground Water	EDB in Water by ECD		SW8011	02/25/2022 09:50	164037	SW8011	02/25/2022 16:54
004A	ERH2564 (Trip Blank)-14733	02/22/2022 13:20	Trip Blank	EDB in Water by ECD		SW8011	02/25/2022 09:50	164037	SW8011	02/25/2022 14:36
006B	ERH2569 (Sump Adit 3)	02/22/2022 15:10	Ground Water	Metals by ICP-MS, Total		SW3010A	02/25/2022 08:25	164029	SW6020	03/01/2022 17:08
006C	ERH2569 (Sump Adit 3)	02/22/2022 15:10	Ground Water	Low Level PAH by 8270C SIM		SW3510C	02/28/2022 08:50	164073	SW8270CSIM	03/03/2022 19:29
				Semi-Volatile Organic Compounds, Extended List		SW3510C	02/28/2022 08:50	164073	SW8270C	03/03/2022 19:42
006D	ERH2569 (Sump Adit 3)	02/22/2022 15:10	Ground Water	Diesel Range Organics		SW3520C	02/24/2022 16:21	164025	SW8015C	02/28/2022 17:46
						SW3520C	02/24/2022 16:21	164025	SW8015C	03/01/2022 18:39
006H	ERH2569 (Sump Adit 3)	02/22/2022 15:10	Ground Water	EDB in Water by ECD		SW8011	02/25/2022 09:50	164037	SW8011	02/25/2022 14:55
009A	ERH 2568 (Trip Blank)-14733	02/22/2022 15:10	Trip Blank	EDB in Water by ECD		SW8011	02/25/2022 09:50	164037	SW8011	02/25/2022 15:15
011B	ERH2567 (RHMW2254-01 Low-flow)	02/22/2022 13:45	Ground Water	Metals by ICP-MS, Total		SW3010A	02/25/2022 08:25	164029	SW6020	03/01/2022 17:20
011C	ERH2567 (RHMW2254-01 Low-flow)	02/22/2022 13:45	Ground Water	Low Level PAH by 8270C SIM		SW3510C	02/28/2022 08:50	164073	SW8270CSIM	03/03/2022 20:34
				Semi-Volatile Organic Compounds, Extended List		SW3510C	02/28/2022 08:50	164073	SW8270C	03/03/2022 20:15
011D	ERH2567 (RHMW2254-01 Low-flow)	02/22/2022 13:45	Ground Water	Diesel Range Organics		SW3520C	02/24/2022 16:21	164025	SW8015C	02/28/2022 14:54
011H	ERH2567 (RHMW2254-01 Low-flow)	02/22/2022 13:45	Ground Water	EDB in Water by ECD		SW8011	02/25/2022 09:50	164037	SW8011	02/25/2022 15:35
014A	ERH2566 (Trip Blank)-14833	02/22/2022 13:45	Trip Blank	EDB in Water by ECD		SW8011	02/25/2022 09:50	164037	SW8011	02/25/2022 15:55



Chemical Abstracts Service (CAS) Registry Numbers

Prepared by Billings, MT Branch

Client: AECOM - Honolulu

Workorder: B22021627

Project: CV18F0126, 60571032.02.46.01

Report Date: 03/08/2022

Analyses	CAS No
LOW LEVEL PAH BY 8270C SIM	
1-Methylnaphthalene	90-12-0
2-Methylnaphthalene	91-57-6
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Benzo(k)fluoranthene	207-08-9
Chrysene	218-01-9
Dibenzo(a,h)anthracene	53-70-3
Fluoranthene	206-44-0
Fluorene	86-73-7
Indeno(1,2,3-cd)pyrene	193-39-5
Naphthalene	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0
AGGREGATE ORGANICS	
Organic Carbon, Total (TOC)	7440-44-0
METALS, TOTAL	
Lead	7439-92-1
METALS, DISSOLVED	
Lead	7439-92-1
VOLATILE ORGANIC COMPOUNDS	
Benzene	71-43-2
Bromobenzene	108-86-1
Bromochloromethane	74-97-5
Bromodichloromethane	75-27-4
Bromoform	75-25-2
Carbon tetrachloride	56-23-5
Chlorobenzene	108-90-7
Chlorodibromomethane	124-48-1
Chloroethane	75-00-3
Chloroform	67-66-3
Chloromethane	74-87-3
1,2-Dibromoethane	106-93-4

2-Chlorotoluene	95-49-8
4-Chlorotoluene	106-43-4
Dibromomethane	74-95-3
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Dichlorodifluoromethane	75-71-8
1,1-Dichloroethane	75-34-3
1,2-Dichloroethane	107-06-2
1,1-Dichloroethene	75-35-4
cis-1,2-Dichloroethene	156-59-2
trans-1,2-Dichloroethene	156-60-5
1,2-Dichloropropane	78-87-5
1,3-Dichloropropane	142-28-9
2,2-Dichloropropane	594-20-7
1,1-Dichloropropene	563-58-6
cis-1,3-Dichloropropene	10061-01-5
trans-1,3-Dichloropropene	10061-02-6
Ethylbenzene	100-41-4
Methyl ethyl ketone	78-93-3
Methyl tert-butyl ether (MTBE)	1634-04-4
Methylene chloride	75-09-2
Styrene	100-42-5
1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	79-34-5
Tetrachloroethene	127-18-4
Toluene	108-88-3
1,1,1-Trichloroethane	71-55-6
1,1,2-Trichloroethane	79-00-5
Trichloroethene	79-01-6
Trichlorofluoromethane	75-69-4
1,2,3-Trichloropropane	96-18-4
Vinyl chloride	75-01-4
m+p-Xylenes	179601-23-1
o-Xylene	95-47-6
Xylenes, Total	1330-20-7

VOCS BY MICROEXTRACTION-ECD

1,2-Dibromoethane	106-93-4
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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
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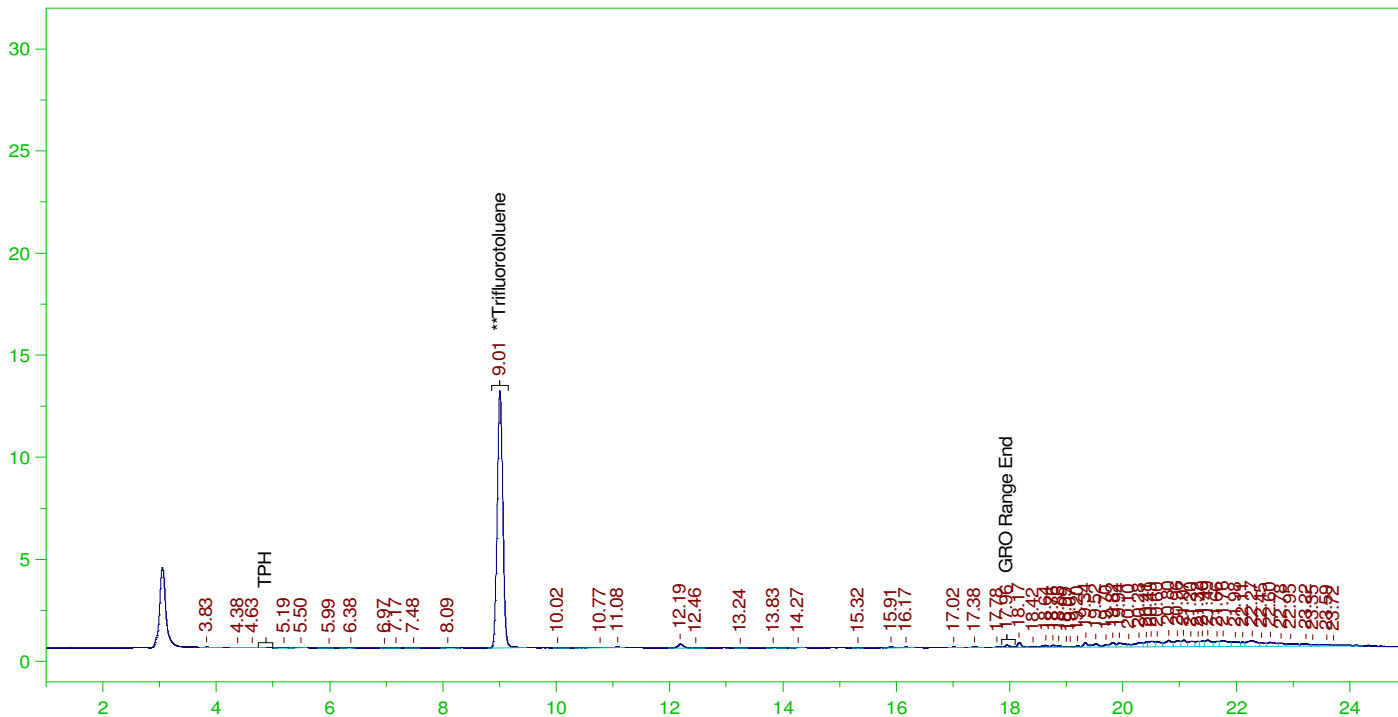
SEMI-VOLATILE ORGANIC COMPOUNDS

1,2,4-Trichlorobenzene	120-82-1
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
2,4-Dichlorophenol	120-83-2
2,4-Dimethylphenol	105-67-9
2,4-Dinitrophenol	51-28-5
2,4-Dinitrotoluene	121-14-2
2,6-Dinitrotoluene	606-20-2
2-Chloronaphthalene	91-58-7
2-Chlorophenol	95-57-8
2-Nitrophenol	88-75-5
3,3'-Dichlorobenzidine	91-94-1
4,6-Dinitro-2-methylphenol	534-52-1
4-Bromophenyl phenyl ether	101-55-3
4-Chloro-3-methylphenol	59-50-7
4-Chlorophenol	106-48-9
4-Chlorophenyl phenyl ether	7005-72-3
4-Nitrophenol	100-02-7
Azobenzene	103-33-3
bis(-2-chloroethoxy)Methane	111-91-1
bis(-2-chloroethyl)Ether	111-44-4
bis(2-chloroisopropyl)Ether	108-60-1
bis(2-ethylhexyl)Phthalate	117-81-7
Butylbenzylphthalate	85-68-7
Di-n-butyl phthalate	84-74-2
Di-n-octyl phthalate	117-84-0
Diethyl phthalate	84-66-2
Dimethyl phthalate	131-11-3
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachlorocyclopentadiene	77-47-4
Hexachloroethane	67-72-1
Isophorone	78-59-1
m+p-Cresols	15831-10-4
n-Nitroso-di-n-propylamine	621-64-7
n-Nitrosodimethylamine	62-75-9
n-Nitrosodiphenylamine	86-30-6
Nitrobenzene	98-95-3
o-Cresol	95-48-7
Pentachlorophenol	87-86-5
Phenol	108-95-2
Pyridine	110-86-1

ERH2565 (RHMW2254-01 Bailer)

— G:\Org\VAR\DAT\VAR022522_b\0225VARB.0008.RAW

B22021627-001G ;0225VAR , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22021627-001G ;0225VAR , \$HC-8015-GRO-W,
Raw File: G:\Org\VAR\DAT\VAR022522_b\0225VARB.0008.RAW
Date & Time Acquired: 2/25/2022 11:44:21 AM
Method File: G:\Org\VAR\Methods\211208G1627-1DoDB%.MET
Calibration File: G:\Org\VAR\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 979.9788

Mean RF for TPH: 955.6747

Rt range for Gasoline Range Organics: 4.75 to 18.09

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	9.006	25.	18.689	74.76	-

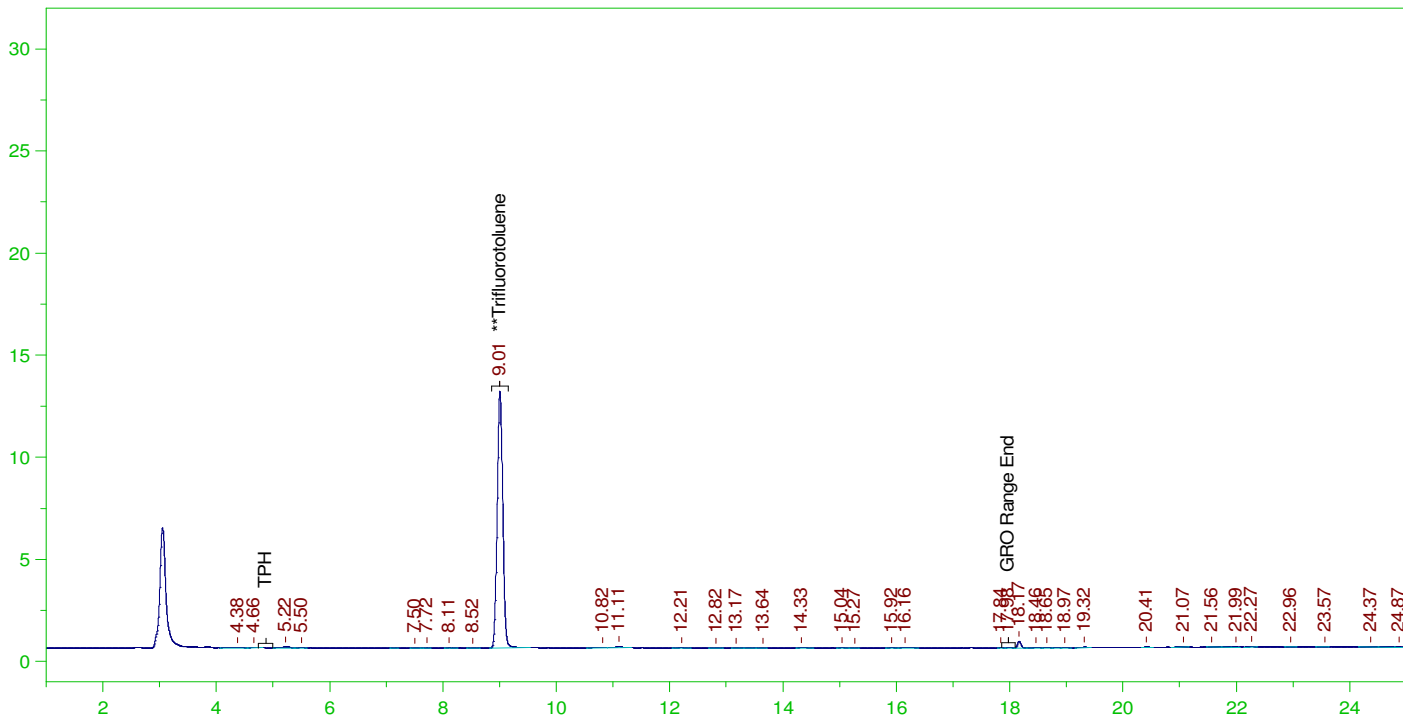
C6 to C10 Area:5688.481 C6 to C10 Amount: 1.16094

TPH Area:61703.75 TPH Amount: 12.91313

ERH2564 (Trip Blank)-14754

G:\Org\VAR\DAT\VAR022522_b\0225VARB.0014.RAW

B22021627-003A ;0225VAR , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22021627-003A ;0225VAR , \$HC-8015-GRO-W,
Raw File: G:\Org\VAR\DAT\VAR022522_b\0225VARB.0014.RAW
Date & Time Acquired: 2/25/2022 3:12:09 PM
Method File: G:\Org\VAR\Methods\211208G1627-3DoDB%.MET
Calibration File: G:\Org\VAR\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 979.9788

Mean RF for TPH: 955.6747

Rt range for Gasoline Range Organics: 4.75 to 18.09

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	9.005	25.	18.651	74.6

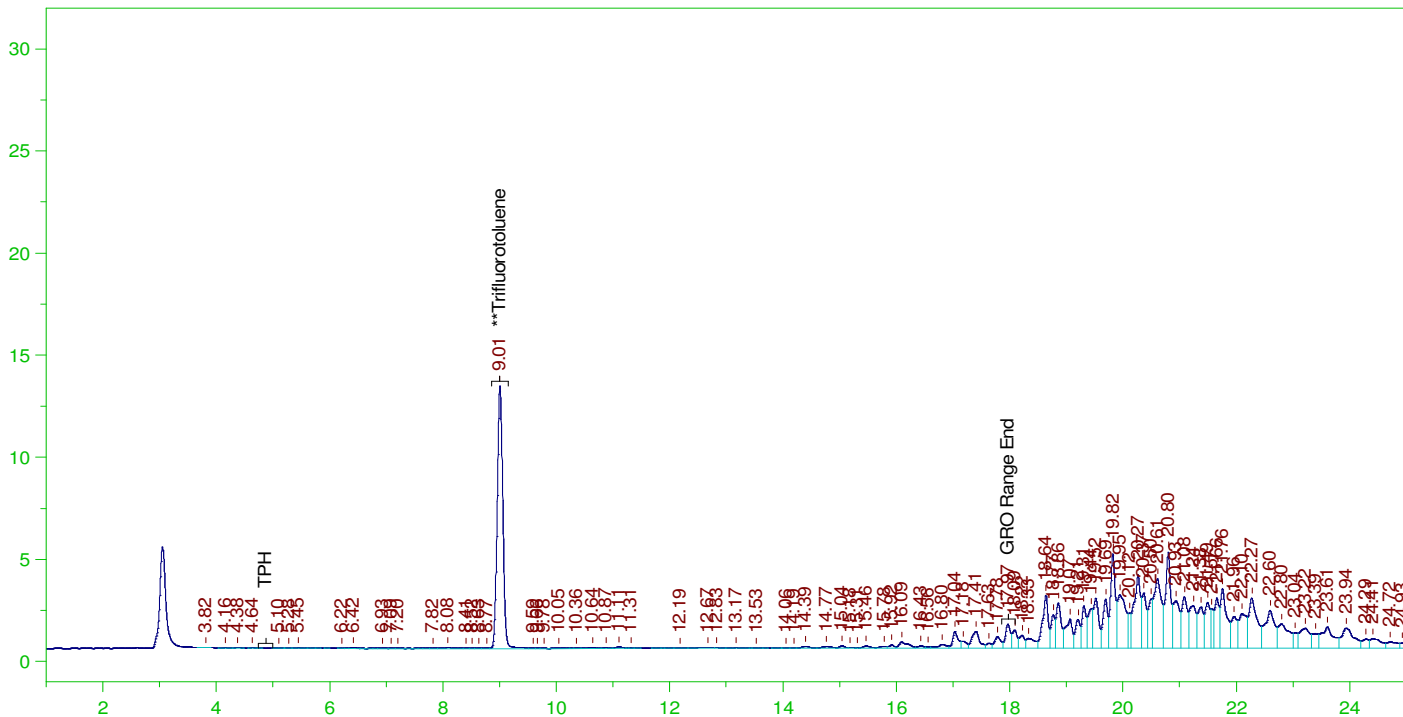
C6 to C10 Area:3587.475 C6 to C10 Amount: 0.7321536

TPH Area:7749.319 TPH Amount: 1.621748

ERH2569 (Sump Adit 3)

G:\Org\VAR\DAT\VAR022522_b\0225VARB.0010.RAW

B22021627-006G ;0225VAR , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22021627-006G ;0225VAR , \$HC-8015-GRO-W,
Raw File: G:\Org\VAR\DAT\VAR022522_b\0225VARB.0010.RAW
Date & Time Acquired: 2/25/2022 12:52:30 PM
Method File: G:\Org\VAR\Methods\211208G1627-6DoDB%.MET
Calibration File: G:\Org\VAR\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 979.9788

Mean RF for TPH: 955.6747

Rt range for Gasoline Range Organics: 4.75 to 18.09

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	9.006	25.	19.217	76.87	-

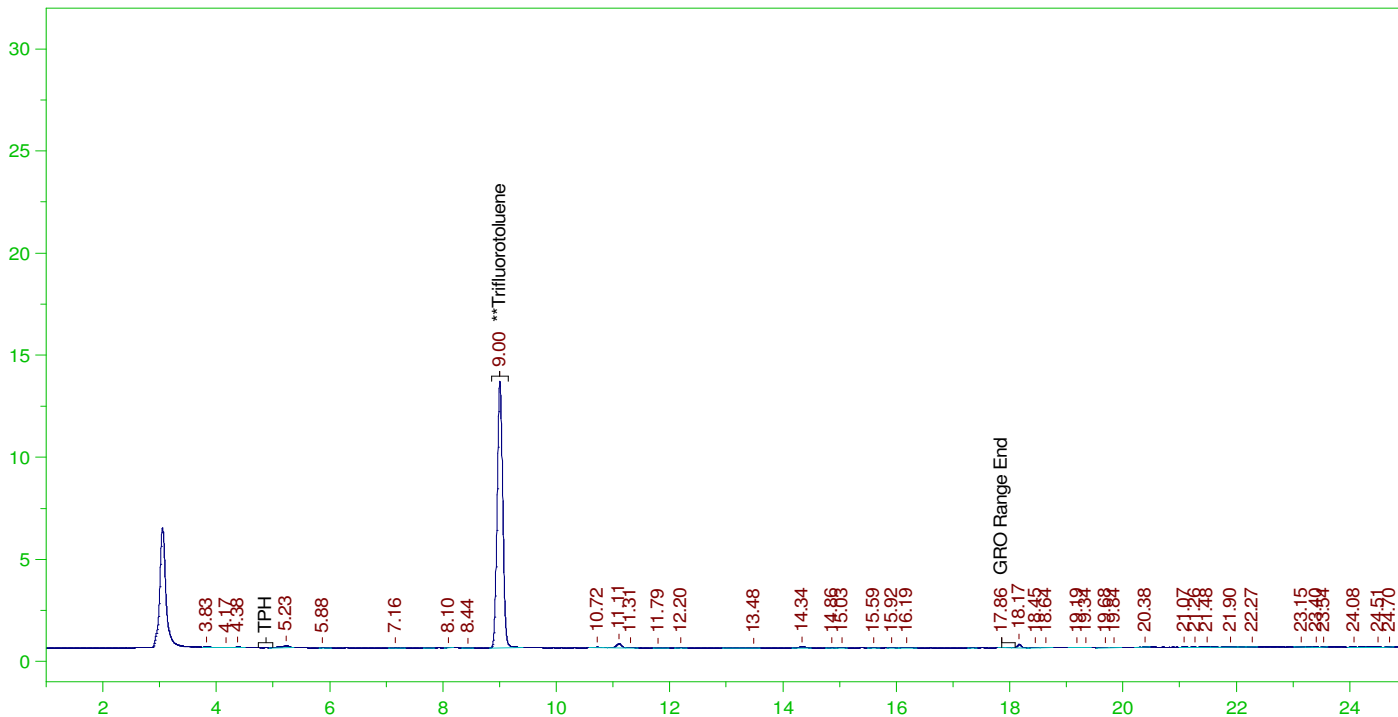
C6 to C10 Area:56909.14 C6 to C10 Amount: 11.61436

TPH Area:646048.9 TPH Amount: 135.2027

ERH 2568 (Trip Blank)-14754

G:\Org\VAR\DAT\VAR022522_b\0225VARB.0015.RAW

B22021627-008A ;0225VAR , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22021627-008A ;0225VAR , \$HC-8015-GRO-W,
Raw File: G:\Org\VAR\DAT\VAR022522_b\0225VARB.0015.RAW
Date & Time Acquired: 2/25/2022 3:46:27 PM
Method File: G:\Org\VAR\Methods\211208G1627-8DoDB%.MET
Calibration File: G:\Org\VAR\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 979.9788

Mean RF for TPH: 955.6747

Rt range for Gasoline Range Organics: 4.75 to 18.09

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
**Trifluorotoluene	9.004	25.	19.317	77.27	-

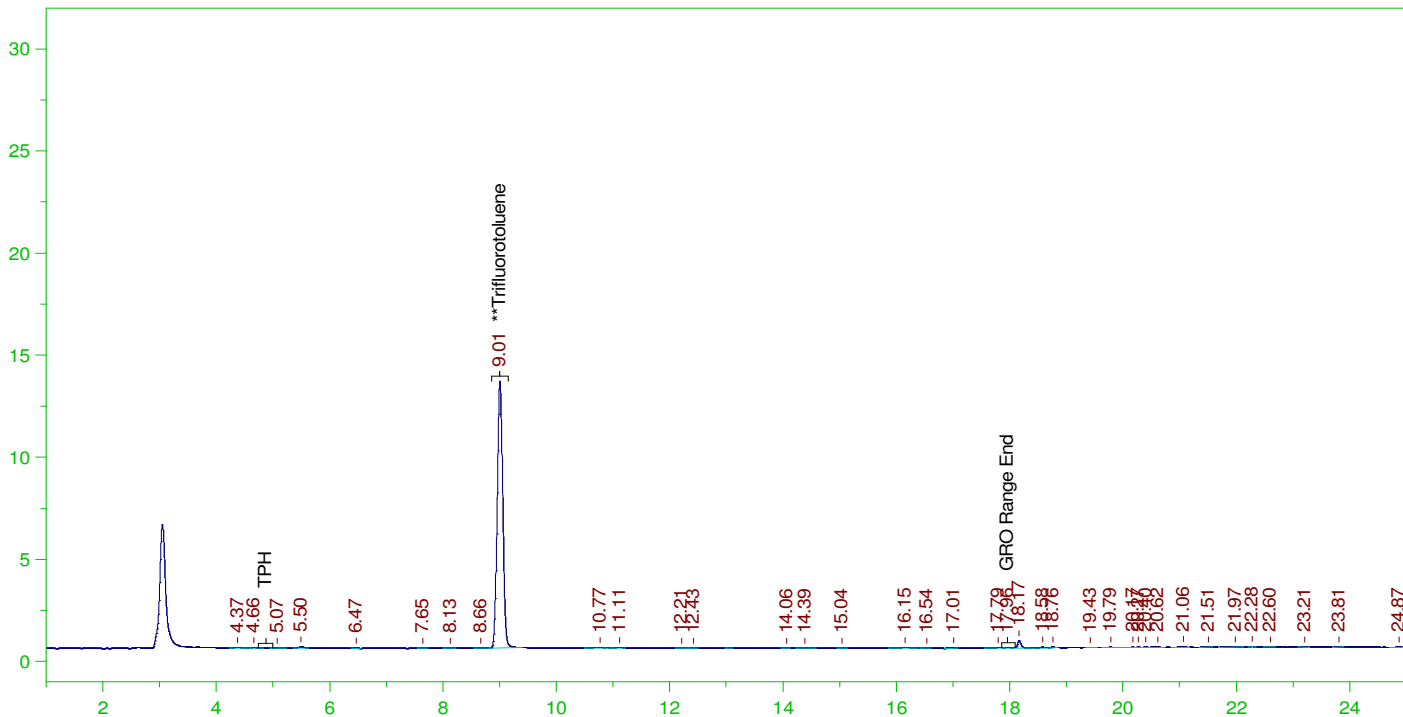
C6 to C10 Area:5160.613 C6 to C10 Amount: 1.053209

TPH Area:9337.213 TPH Amount: 1.954057

ERH2567 (RHMW2254-01 Low-flow)

— G:\Org\VAR\DAT\VAR022522_b\0225VARB.0012.RAW

B22021627-011G ;0225VAR , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22021627-011G ;0225VAR , \$HC-8015-GRO-W,
Raw File: G:\Org\VAR\DAT\VAR022522_b\0225VARB.0012.RAW
Date & Time Acquired: 2/25/2022 2:03:46 PM
Method File: G:\Org\VAR\Methods\211208G1627-11DoDB%.MET
Calibration File: G:\Org\VAR\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 979.9788

Mean RF for TPH: 955.6747

Rt range for Gasoline Range Organics: 4.75 to 18.09

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	9.005	25.	19.313	77.25

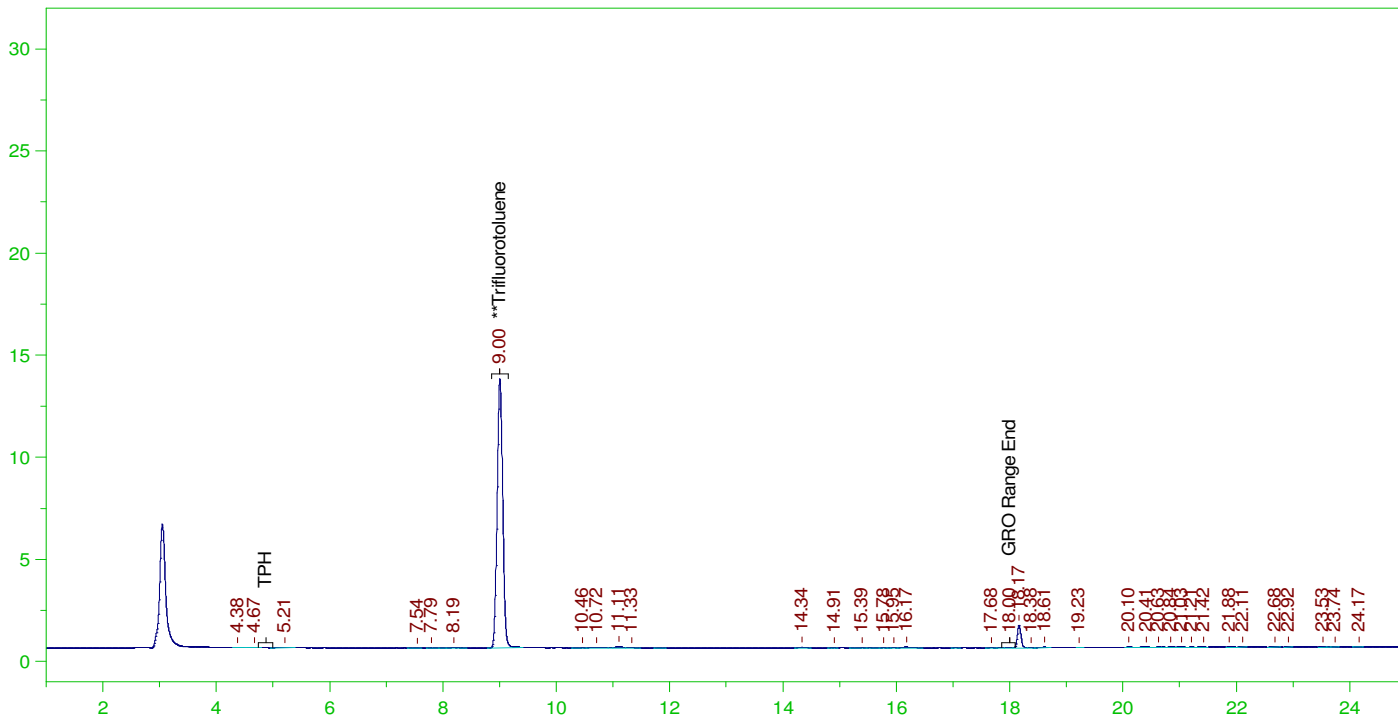
C6 to C10 Area:3250.948 C6 to C10 Amount: 0.6634732

TPH Area:8040.776 TPH Amount: 1.682743

ERH2566 (Trip Blank)-14754

G:\Org\VAR\DAT\VAR022522_b\0225VARB.0016.RAW

B22021627-013A ;0225VAR , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22021627-013A ;0225VAR , \$HC-8015-GRO-W,
Raw File: G:\Org\VAR\DAT\VAR022522_b\0225VARB.0016.RAW
Date & Time Acquired: 2/25/2022 4:20:42 PM
Method File: G:\Org\VAR\Methods\211208G1627-13DoDB%.MET
Calibration File: G:\Org\VAR\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 979.9788

Mean RF for TPH: 955.6747

Rt range for Gasoline Range Organics: 4.75 to 18.09

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	9.004	25.	19.525	78.1

C6 to C10 Area:3857.252 C6 to C10 Amount: 0.7872113

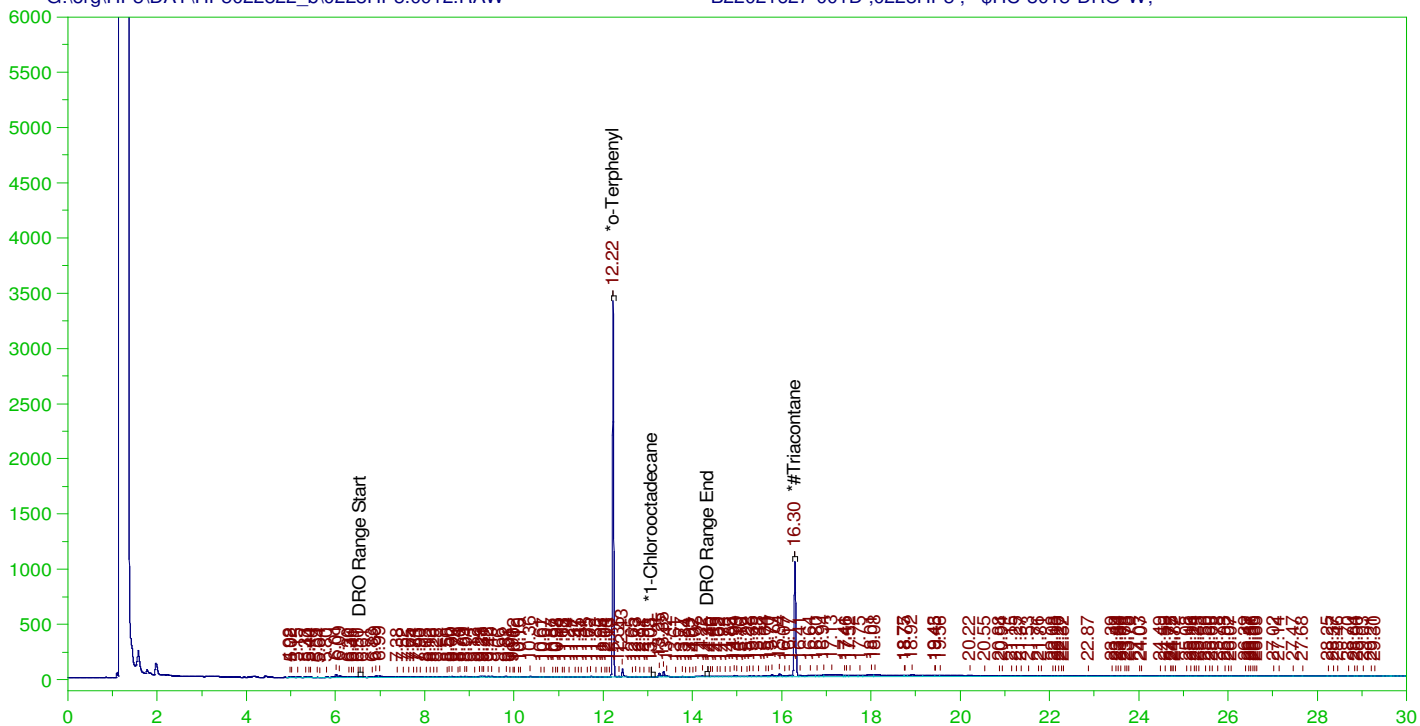
TPH Area:11847.42 TPH Amount: 2.479384

ERH2565 (RHMW2254-01 Bailer)

— G:\org\HP5\DAT\HP5022822_b\0228HP5.0012.RAW

Batch ID: 164025

B22021627-001D ;0228HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22021627-001D ;0228HP5 , \$HC-8015-DRO-W,

Raw File: G:\org\HP5\DAT\HP5022822_b\0228HP5.0012.RAW

Date & Time Acquired: 2/28/2022 3:37:03 PM

Method File: G:\Org\HP5\Methods\D3_8015-C24T-JFb-L%.met

Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JFb-C24-T.CAL

Sample Weight: 1050

Dilution: 1

S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.51 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.218	.19	.172	90.11	-
*1-Chlorooctadecane	13.08	.19	.	.09	-
*#Triacontane	16.295	.19	.091	47.97	-

DRO Area:1683136

DRO Amount: 4.905796E-02

TEH Area:8866128

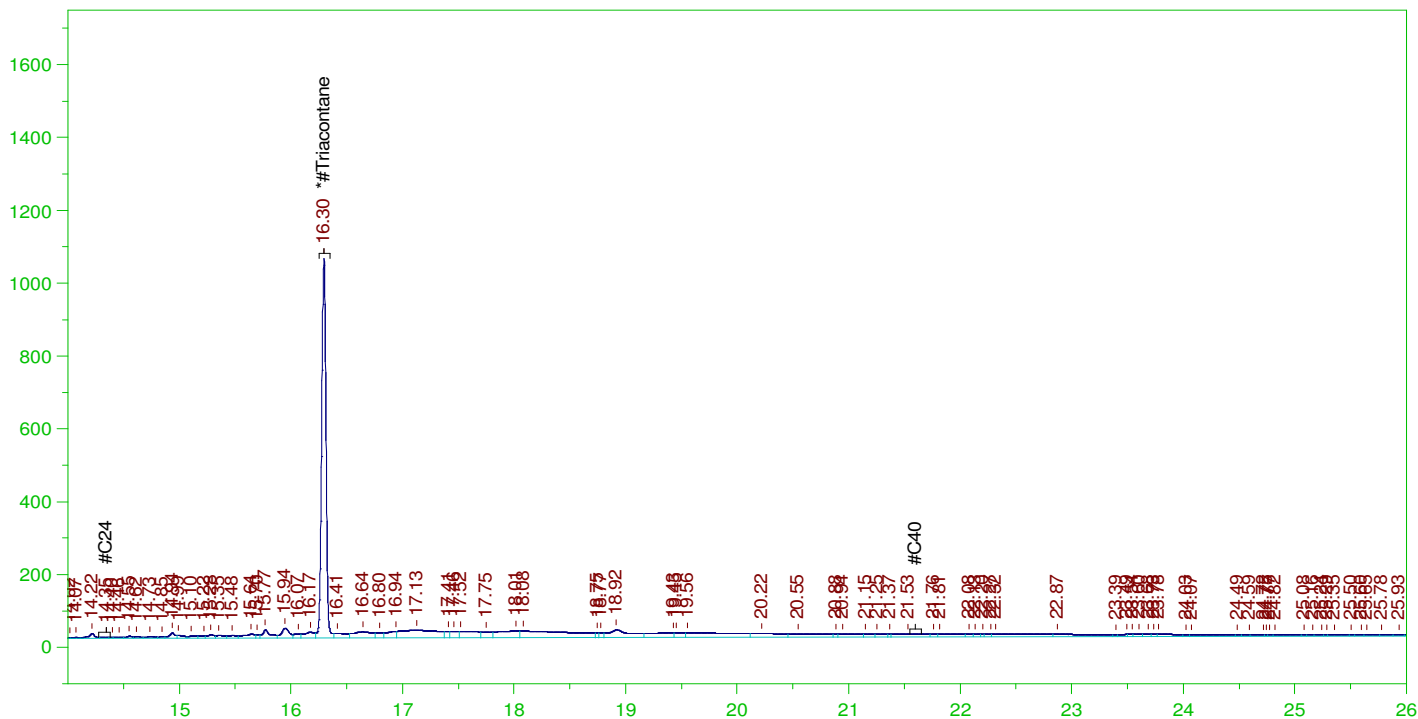
TEH Amount: 0.2584189

ERH2565 (RHMW2254-01 Bailer)

— G:\org\HP5\DAT\HP5022822_b\0228HP5.0012.RAW

Batch ID: 164025

B22021627-001D ;0228HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22021627-001D ;0228HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5022822_b\0228HP5.0012.RAW
Date & Time Acquired: 2/28/2022 3:37:03 PM
Method File: G:\Org\HP5\Methods\D3_OROS-BF-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BF_SAMP.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55

Rt range for Residual Range Organics: 14.28 to 21.65

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.295	.476	.091	19.19	-

RRO Area:5077042

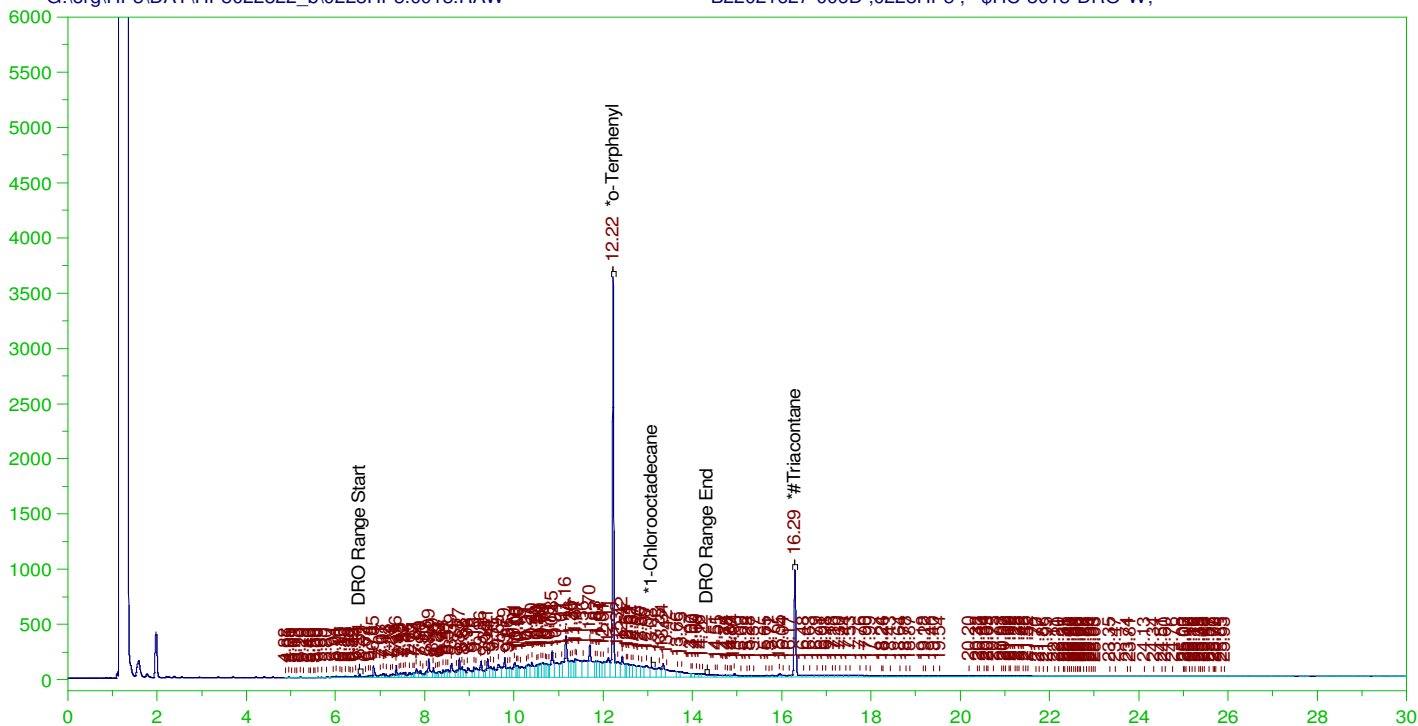
RRO AMOUNT: 0.1829843

ERH2569 (Sump Adit 3)

G:\org\HP5\DAT\HP5022822_b\0228HP5.0015.RAW

Batch ID: 164025

B22021627-006D ;0228HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22021627-006D ;0228HP5 , \$HC-8015-DRO-W,

Raw File: G:\org\HP5\DAT\HP5022822_b\0228HP5.0015.RAW

Date & Time Acquired: 2/28/2022 5:46:26 PM

Method File: G:\Org\HP5\Methods\D3_8015-022815-JFb-L%.met

Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JFb-C24-T.CAL

Sample Weight: 1060

Dilution: 1

S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.51 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.218	.189	.198	104.83	-
*1-Chlorooctadecane	13.079	.189	.016	8.63	-
*#Triacontane	16.294	.189	.087	46.15	-

DRO Area:3.884418E+07 DRO Amount: 1.121501

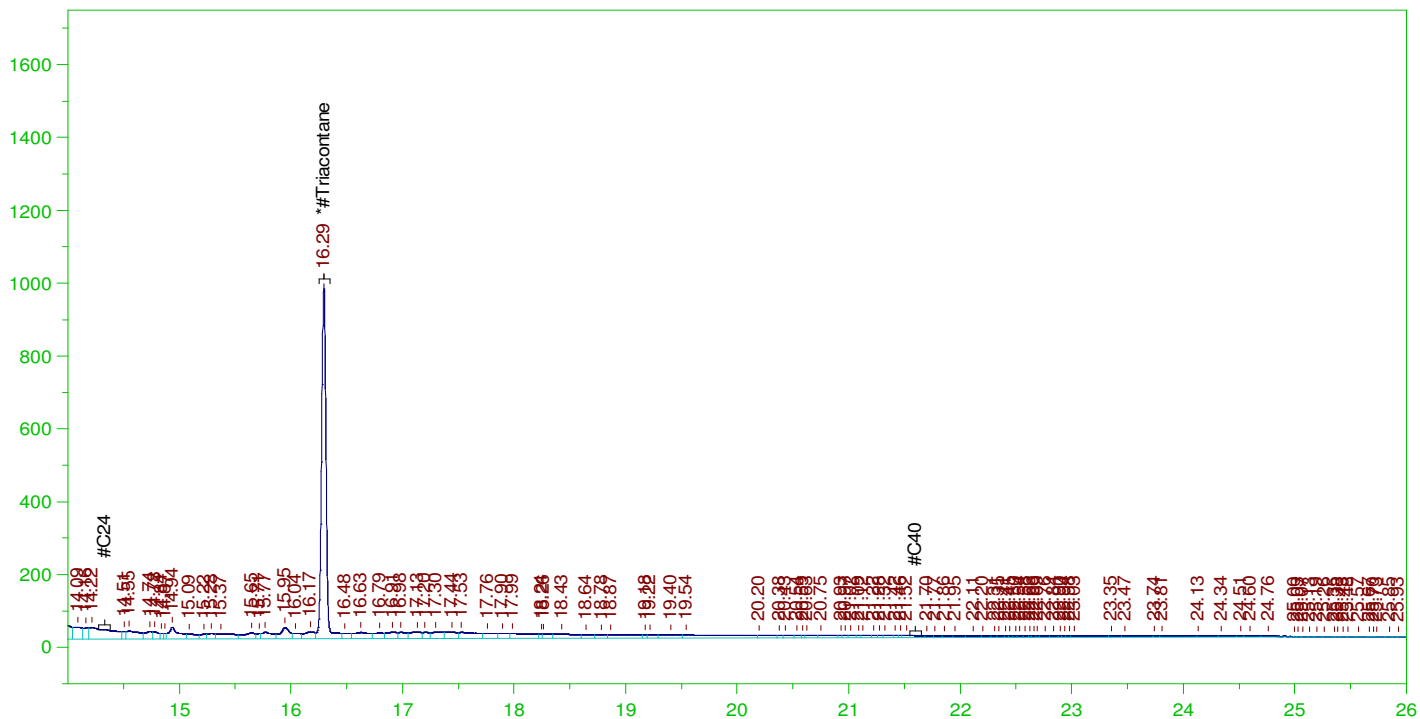
TEH Area:4.43087E+07 TEH Amount: 1.279272

ERH2569 (Sump Adit 3)

Batch ID: 164025

G:\org\HP5\DAT\HP5022822_b\0228HP5.0015.RAW

B22021627-006D ;0228HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22021627-006D ;0228HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5022822_b\0228HP5.0015.RAW
Date & Time Acquired: 2/28/2022 5:46:26 PM
Method File: G:\Org\HP5\Methods\D3_OROS-022815-BF-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BF_SAMP.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55

Rt range for Residual Range Organics: 14.28 to 21.65

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.294	.472	.087	18.46	-

RRO Area:4527913

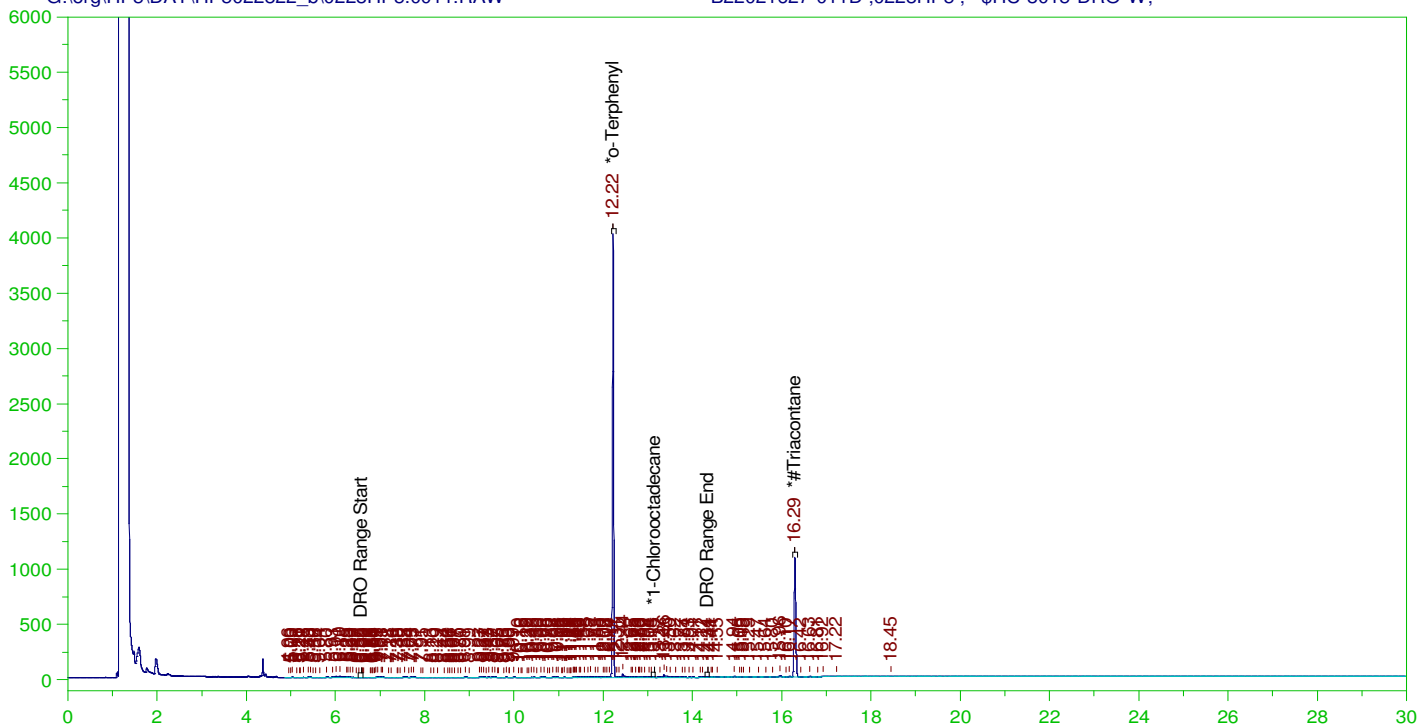
RRO AMOUNT: 0.1616533

ERH2567 (RHMW2254-01 Low-flow)

Batch ID: 164025

G:\org\HP5\DAT\HP5022822_b\0228HP5.0011.RAW

B22021627-011D ;0228HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22021627-011D ;0228HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5022822_b\0228HP5.0011.RAW
Date & Time Acquired: 2/28/2022 2:54:01 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-JFb-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JFb-C24-T.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.51 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.217	.189	.2	105.91	-
*1-Chlorooctadecane	13.145	.189	.	.01	-
*Triacontane	16.295	.189	.091	48.45	-

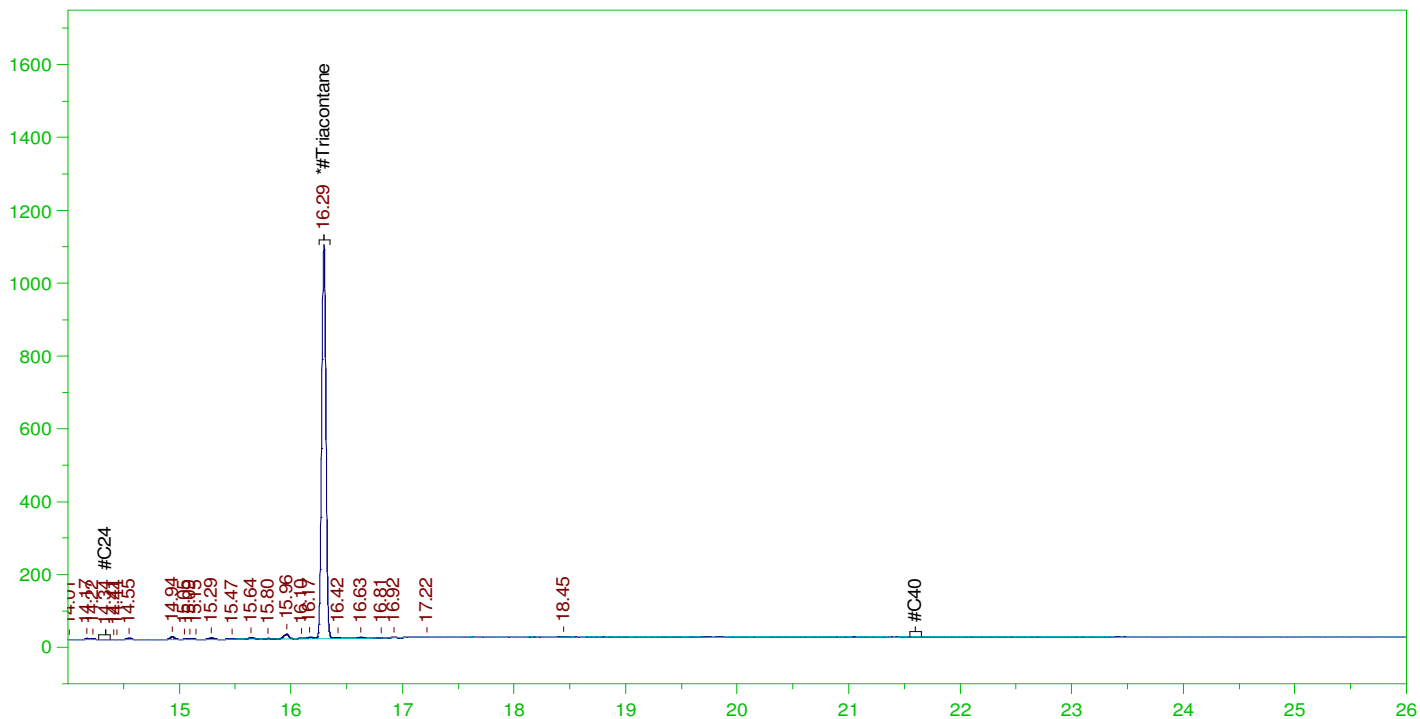
DRO Area:641070.1 DRO Amount: 1.850884E-02
TEH Area:987348.9 TEH Amount: 2.850653E-02

ERH2567 (RHMW2254-01 Low-flow)

Batch ID: 164025

G:\org\HP5\DAT\HP5022822_b\0228HP5.0011.RAW

B22021627-011D ;0228HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22021627-011D ;0228HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5022822_b\0228HP5.0011.RAW
Date & Time Acquired: 2/28/2022 2:54:01 PM
Method File: G:\Org\HP5\Methods\DR_OROS-BF-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BF_SAMP.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55

Rt range for Residual Range Organics: 14.28 to 21.65

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.295	.472	.091	19.38

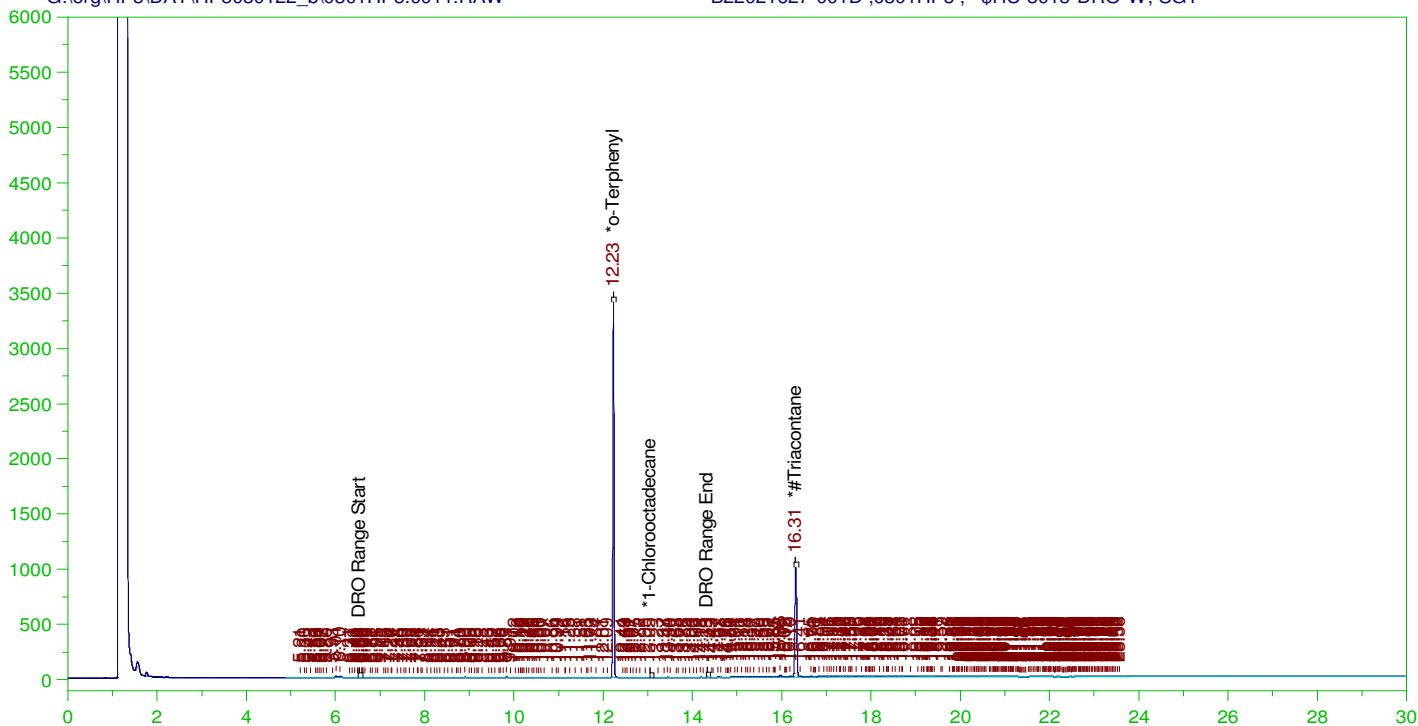
RRO Area:167281.7 RRO AMOUNT: 5.972207E-03

ERH2565 (RHMW2254-01 Bailer)

G:\org\HP5\DAT\HP5030122_b\0301HP5.0011.RAW

Batch ID: 164025

B22021627-001D ;0301HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22021627-001D ;0301HP5 , \$HC-8015-DRO-W, SGT

Raw File: G:\org\HP5\DAT\HP5030122_b\0301HP5.0011.RAW

Date & Time Acquired: 3/1/2022 4:30:48 PM

Method File: G:\Org\HP5\Methods\DR_8015-030111-JG-L%.met

Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JG-C24-T.CAL

Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.51 to 14.41

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.225	.19	.171	89.88	-
*1-Chlorooctadecane	13.049	.19	.	.08	-
*#Triacontane	16.313	.19	.086	44.93	-

DRO Area:537915.5

DRO Amount: 0.0156785

TEH Area:2849868

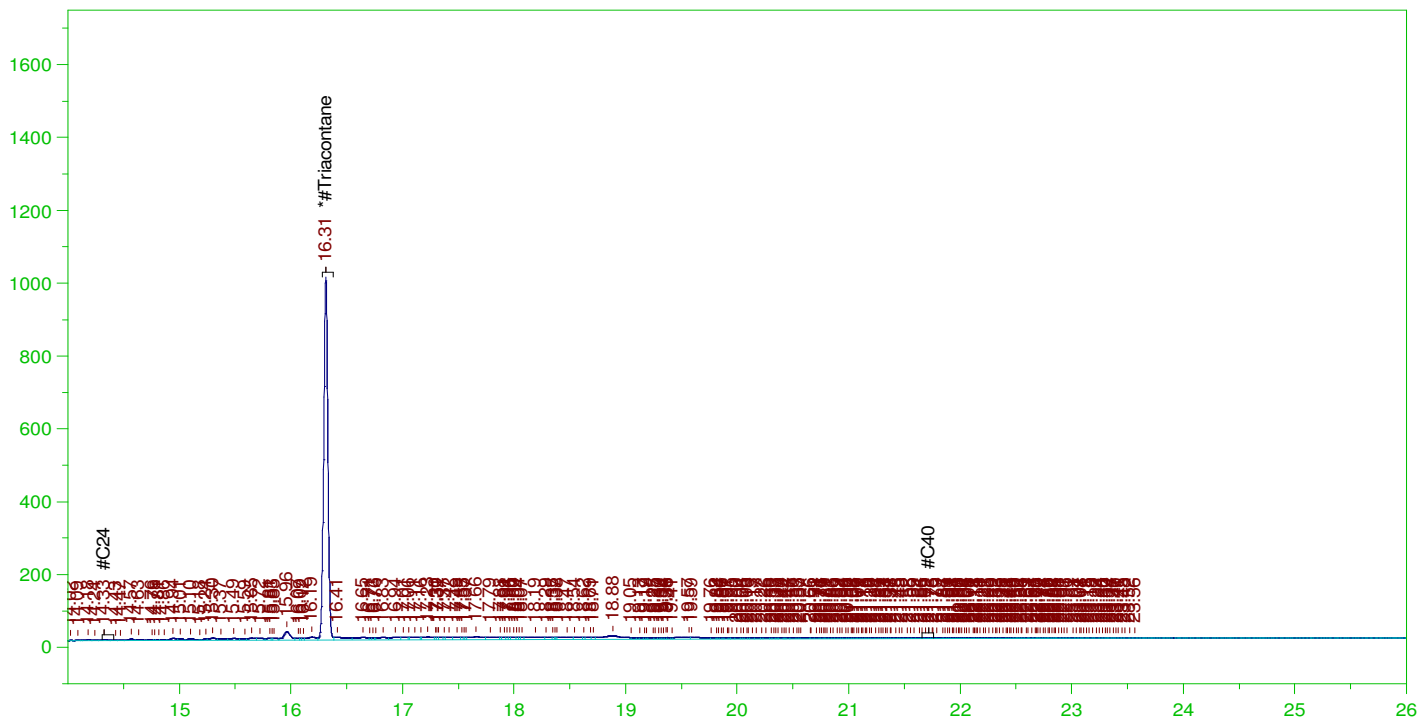
TEH Amount: 8.306444E-02

ERH2565 (RHMW2254-01 Bailer)

G:\org\HP5\DAT\HP5030122_b\0301HP5.0011.RAW

Batch ID: 164025

B22021627-001D ;0301HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22021627-001D ;0301HP5 , \$HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5030122_b\0301HP5.0011.RAW
Date & Time Acquired: 3/1/2022 4:30:48 PM
Method File: G:\Org\HP5\Methods\D3_OROS-030111-BG-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BG_SAMP.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55

Rt range for Residual Range Organics: 14.31 to 21.76

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.313	.476	.086	17.97	-

RRO Area:2015539

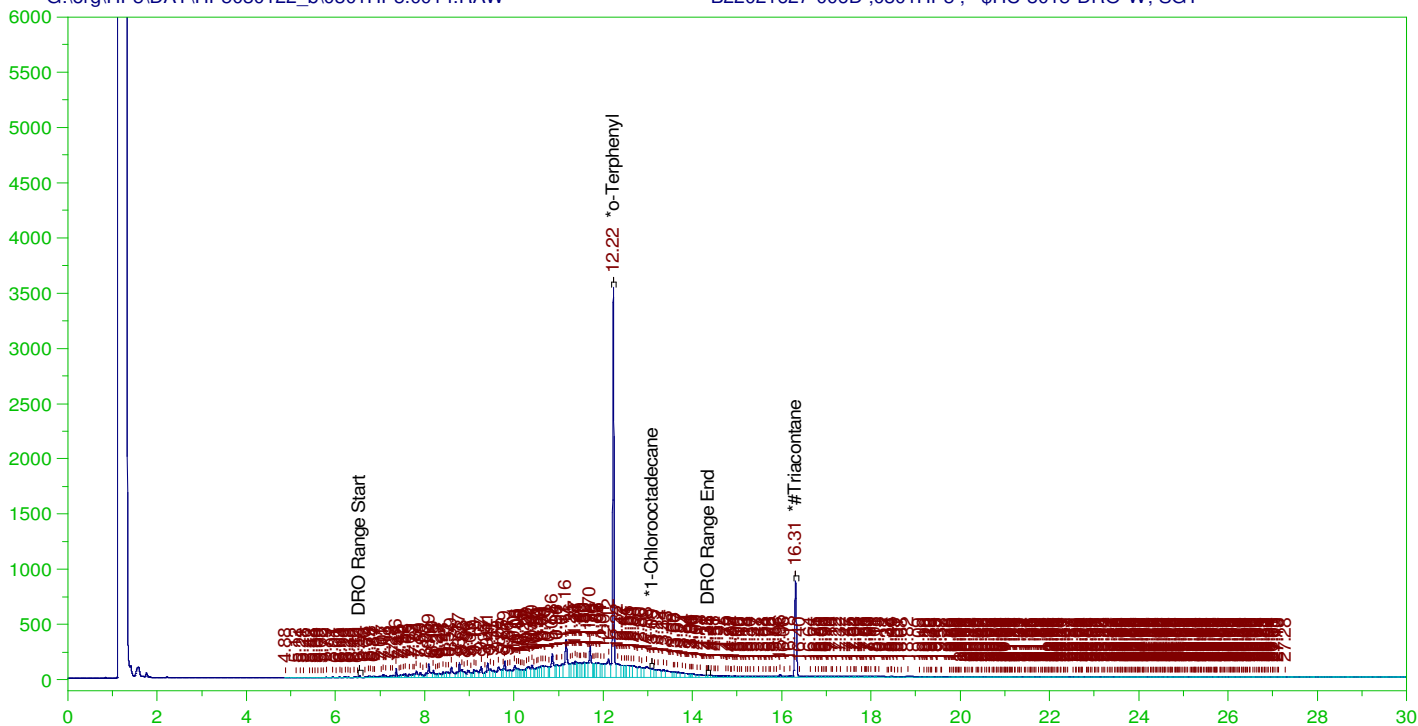
RRO AMOUNT: 0.0726431

ERH2569 (Sump Adit 3)

G:\org\HP5\DAT\HP5030122_b\0301HP5.0014.RAW

Batch ID: 164025

B22021627-006D ;0301HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22021627-006D ;0301HP5 , \$HC-8015-DRO-W, SGT

Raw File: G:\org\HP5\DAT\HP5030122_b\0301HP5.0014.RAW

Date & Time Acquired: 3/1/2022 6:39:01 PM

Method File: G:\Org\HP5\Methods\DR_8015-030114-JG-L%.met

Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JG-C24-T.CAL

Sample Weight: 1060

Dilution: 1

S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.51 to 14.41

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.224	.189	.194	102.94	-
*1-Chlorooctadecane	13.089	.189	.01	5.31	-
*#Triacontane	16.307	.189	.075	39.95	-

DRO Area:3.283126E+07 DRO Amount: 0.9478972

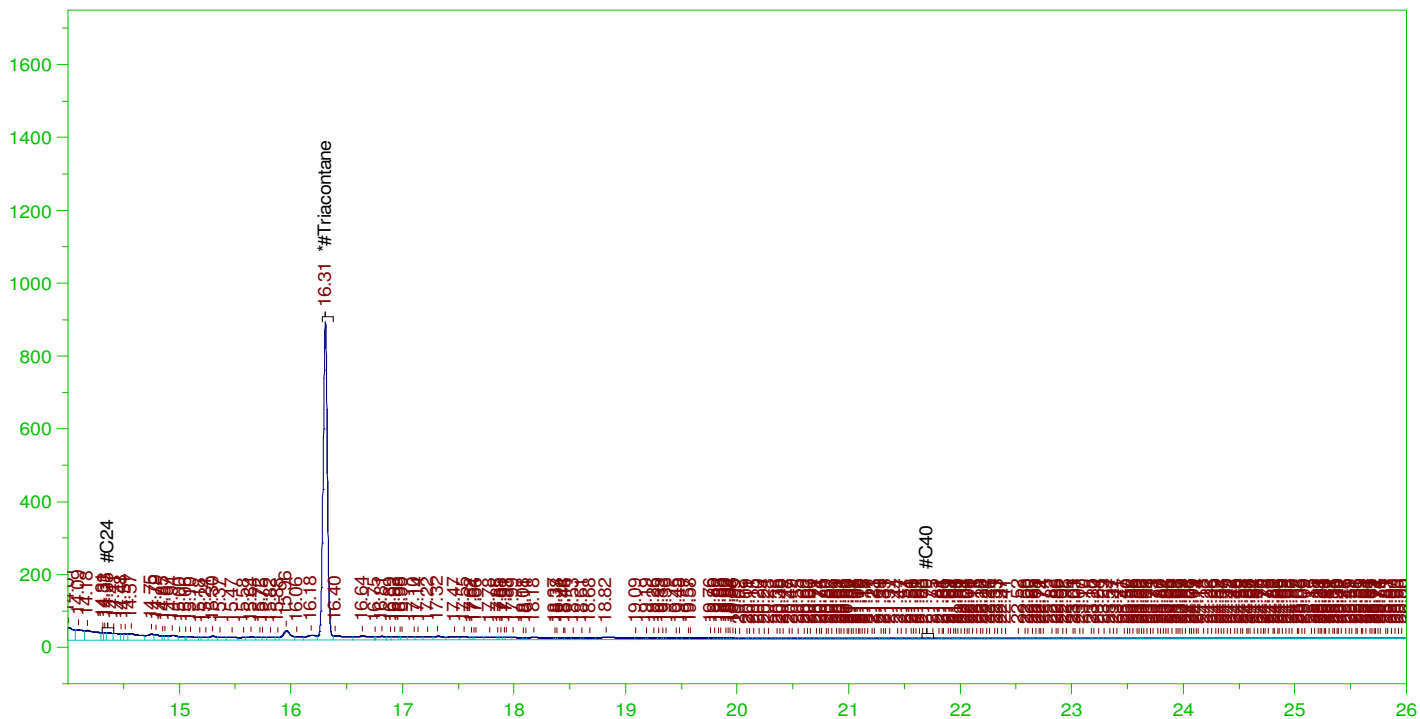
TEH Area:3.657471E+07 TEH Amount: 1.055977

ERH2569 (Sump Adit 3)

G:\org\HP5\DAT\HP5030122_b\0301HP5.0014.RAW

Batch ID: 164025

B22021627-006D ;0301HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22021627-006D ;0301HP5 , \$HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5030122_b\0301HP5.0014.RAW
Date & Time Acquired: 3/1/2022 6:39:01 PM
Method File: G:\Org\HP5\Methods\D3_OROS-030114-BG-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BG_SAMP.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55

Rt range for Residual Range Organics: 14.31 to 21.76

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.307	.472	.075	15.98	-

RRO Area:3233399

RRO AMOUNT: 0.1154372

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

Categories: Must Attend

Hi Tabitha,

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

Thank you,

Alethea Ramos, CIH
Environmental Scientist, Environmental Health & Science, Environment
D +1-808-529-7283
M +1-808-389-5383
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[Fortune World's Most Admired Companies 2020](#)

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

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If you received this in error, please contact the sender and delete this email and all copies.

***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.amos@aecom.com>]

Sent: Saturday, December 11, 2021 3:20 AM

To: Shari Endy; billingsPM@energylab.com

Cc: Jillian Miller; Pascua, Margie; KaaihiliChoy, Terri Ann

Subject: CV18F0126: Expedited NOI Groundwater Samples, Saturday 12/12 Submission

Importance: High

Hi Shari and Billings PM,

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

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

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

Thank you,

Alethea Ramos, CIH

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